INTEGRATED ASSESSMENT OF ECONOMIC SECURITY IN FOOD INDUSTRY ENTERPRISES

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Abstract. This thesis presents an integrated approach to assessing the economic security of food industry enterprises through the OOS-IXI composite index. The method combines financial stability, liquidity, profitability, production and resource efficiency, and settlement and tax discipline. It is tested using the 2023–2025 financial statements of two food enterprises. The findings show that growth in sales, equity and current liquidity does not automatically eliminate critical weaknesses caused by rising cost intensity, losses, slow inventory turnover and asset deterioration. Weighted geometric aggregation limits excessive compensation between strong and weak blocks and converts the composite score into differentiated managerial responses.

Keywords: economic security, food industry, composite index, profitability, liquidity, cost intensity, risk management.

The food industry is strategically important for consumer welfare, agricultural value addition, regional employment and export development. Its enterprises nevertheless operate under a distinctive combination of risks, including seasonal raw-material supply, perishability, cold-chain dependence, strict safety requirements, energy and logistics costs, imported equipment, and volatile consumer demand. These risks interact: higher input prices increase production costs, weaker margins reduce working capital, and insufficient investment accelerates technological deterioration. Therefore, economic security cannot be assessed adequately through a single profitability or liquidity ratio.

The supply chain literature associates resilience with the ability to anticipate disruptions, adapt operations and recover critical functions [1–3]. Enterprise risk management frameworks additionally require risk identification, assessment, treatment and monitoring to be integrated with strategy and performance [4; 5]. These perspectives imply that economic security in food manufacturing is a multidimensional condition rather than a purely financial outcome. A valid assessment must capture both the enterprise's capacity to meet obligations and its ability to produce profitably, use resources efficiently and maintain disciplined settlements.

HAMROH SNACKS increased net sales from UZS 1,769,042.34 thousand in 2023 to UZS 2,617,518.67 thousand in 2025. However, cost intensity rose from 76.50% to 88.71%, gross profitability declined from 23.50% to 11.29%, and net profitability fell from 11.98% to −2.35%. The depreciation rate of fixed assets reached 70.86% in 2025. The expansion of sales therefore did not strengthen economic security because production costs grew faster than revenue and the technological base continued to deteriorate.

The OOS-IXI score of HAMROH SNACKS was 61.9 points in 2023, corresponding to weak stability. In 2024, the profitability block declined sharply and the enterprise moved into the critical zone at 28.8 points. Financial independence and liquidity improved in 2025, but losses and cost pressure allowed only a partial recovery to 39.9 points, which remained within the risky range. The result

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demonstrates that a healthier balance-sheet structure does not generate sustainable security unless operating efficiency improves simultaneously.

KOMRON-FAYZ-BIZNES recorded an equity ratio of 0.960 and a current ratio of 9.567 in 2025. These values would appear favourable in a conventional ratio analysis. Nevertheless, inventory remained in storage for 301 days, the collection period reached 94.9 days, and the payment period to suppliers was 114.4 days. A substantial share of liquid assets was therefore locked in slow-moving inventories and receivables. The composite index declined from 35.0 points in 2023 to 29.2 points in 2025, confirming that excessive liquidity may coexist with weak economic security.

For HAMROH SNACKS, the immediate managerial priority is to conduct contribution-margin analysis by product, recipe, supplier and sales channel; reduce cost intensity below 85%; and prepare a capital expenditure programme for equipment with depreciation above 70%. For KOMRON-FAYZ-BIZNES, the priorities are ABC–XYZ inventory classification, FIFO/FEFO control, customer credit limits and systematic monitoring of receivable ageing. These measures translate the composite diagnosis into operational targets and are consistent with the risk identification, treatment and monitoring logic of ISO 31000 [5].

The proposed OOS-IXI framework evaluates economic security as a balance among capital structure, liquidity quality, profitability, resource efficiency and settlement discipline. The case results confirm that higher sales, equity or current liquidity are not sufficient conditions for economic security. A weighted geometric index is particularly useful because it highlights bottlenecks that would be obscured by arithmetic averaging. Enterprises should use the final score for annual strategic assessment, block scores for quarterly monitoring, and cost, margin, inventory and receivable indicators for monthly early warning. Future research should test the framework on a five-to-seven-year panel of at least 15–20 comparable enterprises, estimate objective weights through CRITIC or entropy methods, and calibrate security thresholds statistically.

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