

INTISARI

Penelitian ini bertujuan untuk menganalisis tingkat *turnover ratio* pupuk non-subsidi pada gudang PT Pupuk Indonesia (Persero) wilayah Jawa Timur, khususnya pada Gudang Lini 1 (Gresik) dan Gudang Lini 3 (Banyuwangi), serta mengevaluasi dampak kondisi *overstock* dan *stockout* terhadap potensi kerugian perusahaan dalam bentuk *opportunity cost* dan *loss cost*. Selain itu, penelitian ini juga merumuskan strategi mitigasi yang dapat meningkatkan efisiensi pengelolaan persediaan dan distribusi produk pupuk non-subsidi.

Penelitian menggunakan pendekatan kuantitatif deskriptif dengan data sekunder berupa laporan historis stok, penjualan, dan realisasi distribusi selama periode 2020 sampai dengan Juni 2025. Analisis dilakukan dengan menghitung rasio *inventory turnover*, regresi antara *turnover ratio* dan biaya (*opportunity cost* dan *loss cost*), serta identifikasi penyebab rendahnya efisiensi melalui *Fishbone diagram*. Produk dengan nilai *median* turnover tertinggi di lini 1 terdapat pada SP 26 (6,49) dan ZK (7,03), sedangkan lini 3 turnover tertinggi terdapat pada NPK (1,38) dan Urea (1,44).

Hasil penelitian mengindikasikan bahwa *overstock* menyebabkan pembengkakan biaya penyimpanan, penurunan kualitas produk, serta *opportunity cost* berupa hilangnya potensi pendapatan rata-rata senilai 26 Miliar atau 22% dari rata-rata total aset per tahun akibat stok tidak segera tersalurkan. Sebaliknya, *stockout* berdampak pada kehilangan penjualan (*loss cost*) senilai 261 Juta atau 21% dari rata-rata total aset per tahun, menurunnya kepercayaan pelanggan, serta mengganggu stabilitas rantai pasok perusahaan. Analisis regresi memperlihatkan hubungan negatif antara *turnover ratio* dengan kedua jenis biaya tersebut, yang berarti semakin rendah tingkat perputaran stok, semakin tinggi potensi kerugian finansial yang dialami perusahaan.

Hasil *fishbone analysis* menunjukkan faktor utama rendahnya *turnover ratio* meliputi: ketidakakuratan perencanaan permintaan, keterbatasan kapasitas gudang, sistem pelacakan stok yang belum terintegrasi, dan kebijakan distribusi yang kurang adaptif terhadap dinamika pasar. Berdasarkan temuan tersebut, disarankan strategi mitigasi berupa penguatan sistem *demand forecasting*, penerapan *integrated inventory management system*, serta penyesuaian kebijakan alokasi stok antar lini berdasarkan data permintaan aktual dan potensi pasar. Implementasi strategi ini diharapkan dapat meningkatkan efisiensi logistik dan mendukung pencapaian target keberlanjutan operasional PT Pupuk Indonesia (Persero).

Kata Kunci: *Turnover Ratio, Inventory Management, Overstock, Stockout, Opportunity Cost, Loss cost, Supply Chain Management, PT Pupuk Indonesia (Persero)*

ABSTRACT

This research aims to analyze the *Inventory Turnover Ratio* of non-subsidized fertilizers at PT Pupuk Indonesia (Persero) warehouses in East Java, specifically focusing on Line 1 (Gresik) and Line 3 (Banyuwangi). The study also evaluates the impact of *overstock* and *stockout* conditions on the company's potential financial losses in the form of *opportunity cost* and *loss cost* and formulates strategic mitigation measures to enhance inventory management and distribution efficiency.

This study employs a quantitative descriptive approach using secondary data derived from historical inventory, sales, and distribution realization reports from 2020 to 2024. The analysis includes calculating the *Inventory Turnover Ratio*, performing regression analysis to examine the relationship between *turnover ratio* and costs (*opportunity cost* and *loss cost*), and identifying root causes of inefficiency using the *fishbone diagram*. The products with the highest *median* turnover value in line 1 were SP 26 (6.49) and ZK (7.03), while the highest turnover in line 3 was NPK (1.38) and Urea (1.34).

The results indicate that *overstock* conditions lead to increased storage costs, reduced product quality, and *opportunity costs* in the form of lost potential revenue averaging IDR 26 billion, or approximately 22% of total assets per year, due to unsold inventory. Conversely, *stockout* conditions result in loss cost amounting to IDR 261 million, or about 21% of total assets per year, decreased customer trust, and disruptions in the company's supply chain stability. Regression analysis shows a negative relationship between the *turnover ratio* and both cost variables, implying that lower stock turnover levels correspond to higher potential financial losses.

The *fishbone analysis* identifies four primary factors contributing to low *turnover ratios*: inaccurate demand forecasting, limited warehouse capacity, lack of an integrated inventory tracking system, and rigid distribution policies that fail to adapt to market fluctuations. Based on these findings, the study recommends several strategic mitigation measures, including the adoption of an integrated *demand forecasting system*, the implementation of a real-time *inventory management system*, and the adjustment of inter-line stock allocation based on actual demand and regional market potential. These measures are expected to enhance operational efficiency, reduce slow-

moving inventory, and support PT Pupuk Indonesia's operational sustainability objectives.

Keywords: *Inventory Turnover Ratio, Inventory Management, Overstock, Stockout, Opportunity Cost, Loss Cost, Supply Chain Management, PT Pupuk Indonesia (Persero)*



Analisis Tingkat Turnover Ratio Produk Pupuk Non Subsidi pada Gudang Jawa Timur PT Pupuk Indonesia (Persero)
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