

Logistics Capability, Inventory Efficiency, and Retail Performance: Evidence from Indonesian Listed Retail Companies

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ABSTRACT: This study examines the relationship between logistics capability, inventory efficiency, and retail performance among five major Indonesian publicly listed retail companies — AMRT, MIDI, ERAA, ACES, and MAPI — using audited secondary financial data from 2020 to 2024. A quantitative, comparative, and longitudinal design was employed, analyzing net sales, inventory, cost of goods sold, inventory turnover, and store-network scale. All sampled companies recorded positive sales growth, though with varying trajectories. AMRT grew net revenue from Rp75.83 trillion to Rp118.23 trillion while maintaining stable inventory turnover. MIDI expanded revenue, inventory, and store networks concurrently. ERAA nearly doubled its sales, with ACES and MAPI also recording growth. Inventory investment generally increased alongside sales, reflecting greater operational capacity. AMRT's slight inventory turnover decline in 2024 is interpreted as a potential strategic response to network expansion rather than inefficiency. The findings suggest that logistics capability, inventory efficiency, and distribution-network scale serve as complementary indicators of retail operational performance. This study contributes comparative evidence to the logistics and retail management literature using audited data. However, inventory-based metrics should not be treated as direct measures of customer satisfaction. Future research should integrate customer-based indicators and apply advanced longitudinal methods with larger balanced datasets.

Keywords: Logistics Capability, Inventory Turnover, Inventory Efficiency, Retail Performance, Distribution Network, Indonesian Retail Industry, Secondary Financial Data



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INTRODUCTION

The Indonesian retail industry has experienced substantial growth over the last decade, supported by rapid urbanization, increasing household consumption, and the expansion of modern retail formats. This development has intensified competition among retailers, requiring firms to improve not only their marketing capabilities but also the efficiency of their logistics operations. In

contemporary retailing, logistics capability extends beyond transportation and warehousing to include the coordinated planning, execution, and monitoring of inventory movement throughout the supply chain. Effective logistics capability enables retailers to maintain product availability, respond quickly to market demand, and improve operational efficiency while minimizing inventory-related costs. Consequently, logistics capability has become an important strategic resource for sustaining competitiveness in increasingly dynamic retail markets (Chen et al., 2024; Djaja & Yuan, 2023).

The growing importance of logistics capability is closely associated with inventory management and distribution network effectiveness. Previous studies demonstrate that integrated information systems, information and communication technology (ICT), radio-frequency identification (RFID), forecasting systems, and real-time information sharing improve inventory visibility, accelerate replenishment, and reduce operational waste (Nikolić et al., 2021; Hamdani & Prastiyanti, 2022; Muhajiroh, 2024)). These capabilities contribute to higher inventory turnover, lower stockholding costs, and improved product availability, thereby enhancing operational performance. Empirical evidence further suggests that inventory turnover serves as a practical indicator of logistics responsiveness because faster inventory rotation generally reflects more efficient inventory control and improved supply chain coordination, although excessively high turnover may also increase the risk of stockouts when supply reliability is inadequate (Aguedo et al., 2024; Sweeney et al., 2020).

Inventory management has long been recognized as one of the primary determinants of retail performance because inventory represents a substantial proportion of working capital in retail organizations (Lu et al., 2025; Tian et al., 2025). Effective inventory management reduces carrying costs, minimizes product obsolescence, improves liquidity, and supports higher profitability through efficient asset utilization. Numerous empirical studies report positive relationships between inventory turnover and financial performance indicators such as return on assets (ROA), return on equity (ROE), and overall profitability, particularly in retail companies operating within emerging economies (Bakir & Sadersah, 2023; Mistry et al., 2019; Nuraini, 2021). Nevertheless, the relationship is not universally linear. Some studies indicate that inventory turnover must be interpreted alongside broader working-capital management because profitability is simultaneously influenced by cash conversion cycles, liquidity management, and demand variability (Mubarak et al., 2021).

Beyond inventory efficiency, the expansion of distribution networks has become an essential strategy for improving retail competitiveness. The establishment of additional stores, distribution centers, and logistics facilities increases market coverage, enhances product availability, and shortens replenishment lead times. Distribution network expansion therefore strengthens logistics capability by enabling retailers to respond more effectively to geographically dispersed customer demand while improving service quality and reducing stockout risks (Djaja & Yuan, 2023; Chen et al., 2024). In emerging markets, including Southeast Asia, logistics network expansion is frequently accompanied by investments in digital inventory systems, supply chain collaboration, and integrated planning processes, all of which contribute to improved operational performance and market competitiveness (Akbar & Lanjarsih, 2023).

The theoretical foundation of this study is primarily derived from the Resource-Based View (RBV) and Dynamic Capabilities Theory (DCT). According to the Resource-Based View, sustainable

competitive advantage originates from valuable, rare, inimitable, and well-organized organizational resources, among which logistics capability represents a strategic operational asset (Zisoudis et al., 2020; Mubarak et al., 2021). Dynamic Capabilities Theory complements this perspective by emphasizing an organization's ability to integrate, reconfigure, and continuously improve operational resources in response to rapidly changing business environments. Within the retail sector, this capability is reflected in adaptive inventory policies, integrated sales and operations planning, digital inventory control systems, and agile distribution networks that collectively enhance organizational responsiveness (Ebong & Babu, 2020; Ngari & Kamau, 2021).

Although previous studies consistently report positive associations among logistics capability, inventory management, and organizational performance, several limitations remain. First, much of the existing literature focuses on individual companies or specific retail segments, limiting the generalizability of findings across the broader retail industry. Second, numerous studies rely on customer perception measures or survey-based constructs, whereas comparatively fewer investigations employ audited financial information to evaluate logistics capability objectively. Third, empirical studies conducted in Southeast Asia often examine profitability or working-capital management without simultaneously considering logistics capability, inventory efficiency, and distribution network expansion within a unified comparative framework. Consequently, there remains a need for research integrating these operational indicators using standardized secondary financial data across multiple publicly listed retail companies.

This study addresses these gaps by examining five Indonesian listed retail companies PT Sumber Alfaria Trijaya Tbk (AMRT), PT Midi Utama Indonesia Tbk (MIDI), PT Erajaya Swasembada Tbk (ERAA), PT Aspirasi Hidup Indonesia Tbk (ACES), and PT Mitra Adiperkasa Tbk (MAPI) over the 2020–2024 period, subject to data availability. Using audited annual reports, financial highlights, investor presentations, and company prospectuses, the study evaluates logistics capability through operational indicators including sales growth, inventory value, inventory turnover, and distribution network scale. Unlike customer-based studies, these indicators represent organizational capabilities associated with inventory management and supply chain operations rather than direct measures of customer satisfaction or repurchase intention. Accordingly, the analysis interprets inventory turnover and distribution expansion as proxies for logistics capability and operational performance.

The objective of this study is to compare logistics capability, inventory efficiency, and retail performance among publicly listed retail companies in Indonesia. Specifically, the study investigates whether sales growth is associated with inventory growth, whether inventory turnover reflects inventory efficiency, and whether broader distribution networks correspond with stronger operational performance. The novelty of this research lies in its comparative longitudinal analysis using audited secondary financial data from multiple Indonesian retailers while integrating the Resource-Based View and Dynamic Capabilities Theory to explain logistics capability. By providing objective operational evidence rather than customer perception measures, the study is expected to contribute to logistics and retail management literature and offer practical insights for managers, investors, and policymakers seeking to evaluate retail operational performance in emerging markets.

METHOD

Research Design

This study employed a quantitative, comparative, and longitudinal research design to evaluate logistics capability, inventory efficiency, and retail performance among publicly listed retail companies in Indonesia. The design was selected because the study relies on numerical information extracted from corporate financial disclosures and examines changes in operational indicators across several reporting periods. Longitudinal designs are widely used in studies that evaluate inventory turnover, working-capital efficiency, profitability, and sales performance because they allow researchers to identify temporal patterns that cannot be observed through a single-period cross-sectional analysis (Bakir & Sadersah, 2023; Nuraini, 2021; Mubarak et al., 2021).

The study combines within-company trend analysis with cross-company comparison. The within-company component assesses changes in sales, inventory, cost of goods sold, inventory turnover, and distribution network size over time. The cross-company component compares the direction and magnitude of these indicators across retailers with different business models and operating scales. Similar comparative approaches have been used in financial-ratio and efficiency studies to rank firms, evaluate relative operational performance, and identify differences in asset utilization using publicly available financial data (Forehand et al., 2021; Putra & Muzakir, 2020).

The analytical design is primarily descriptive and exploratory rather than causal. The available dataset is unbalanced because not all variables are disclosed consistently for every company and year. Consequently, the study does not estimate a full panel regression model. Instead, it applies standardized growth rates, turnover ratios, trend analysis, and structured comparisons. Panel regression, fixed-effects estimation, dynamic panel modeling, and Data Envelopment Analysis are acknowledged as relevant methods in the literature but would require a larger and more complete set of observations than is presently available (Djaja & Yuan, 2023; Forehand et al., 2021).

Population and Sample Selection

The population consists of publicly listed companies operating in Indonesia's retail distribution sector. Purposive sampling was applied to select firms that represented major retail formats and had publicly accessible financial or operational disclosures. The final sample comprised PT Sumber Alfaria Trijaya Tbk (AMRT), PT Midi Utama Indonesia Tbk (MIDI), PT Mitra Adiperkasa Tbk (MAPI), PT Erajaya Swasembada Tbk (ERAA), and PT Aspirasi Hidup Indonesia Tbk (ACES). These companies were selected because they provide a useful comparison across minimarket, consumer electronics, lifestyle, fashion, and home-improvement retail formats. Their inclusion also reflects the availability of annual reports, official financial highlights, prospectuses, or management presentations containing information relevant to sales, inventory, cost of goods sold, and retail network size. The observation period covered 2020–2024, although the number of available annual observations differed by company and variable.

The use of purposive sampling is consistent with secondary-data studies in which firm inclusion depends on sector relevance, stock-exchange listing status, and data availability. However, the sample is not intended to represent every retail company in Indonesia. Rather, it provides a focused

comparison of prominent listed retailers whose disclosures permit the construction of selected logistics and operational indicators.

Data Sources and Collection Procedures

The study used secondary data obtained from audited annual financial statements, official financial highlights, investor-relations materials, company prospectuses, and management presentations. Audited financial statements were prioritized because they offer standardized and externally verified information on net sales, net revenue, inventory, and cost of goods sold. Where a complete audited series was unavailable, values were obtained from official company publications and were clearly classified according to their source and level of certainty.

Data collection followed four stages. First, the relevant financial and operational variables were identified for each company. Second, the disclosed figures were standardized into billions of Indonesian rupiah to facilitate comparison. Third, derived indicators were calculated using consistent formulas. Fourth, all values were assigned a status indicating whether they were directly reported, calculated from reported figures, approximate, or estimated.

This classification was particularly important for MIDI. Its 2024 revenue was derived from the reported 14.62% annual growth applied to an approximate 2023 revenue value. Therefore, the resulting 2024 amount was treated as an estimated observation rather than an audited value. Similarly, AMRT's reported 22,959 stores represented the network size disclosed in an August 2024 management presentation and was not interpreted as an automatic year-end store count.

No values were imputed for unavailable variables. Indicators such as application ratings, customer complaints, loyalty membership, customer-retention rates, same-store sales growth, distribution centers, and cities served were excluded when consistent annual observations could not be identified. This approach reduced the risk of introducing unsupported assumptions into the dataset.

Variable Operationalization

Retail performance was represented primarily by net sales or net revenue and annual sales growth. Sales growth is commonly calculated as the year-over-year percentage change in net sales or operating revenue and is frequently used as an outcome or control variable in studies examining firm growth, inventory practices, and logistics-related performance (Djaja & Yuan, 2023; Forehand et al., 2021).

The literature commonly reports inventory growth as the annual change in inventory balances rather than as a universally standardized ratio. Such changes are generally interpreted in relation to sales expansion, network development, supply-chain modernization, or changes in demand conditions (Li, 2023; Forehand et al., 2021).

Inventory efficiency was measured through inventory turnover, one of the most widely applied indicators of stock movement and working-capital utilization in retail studies

Inventory turnover indicates how many times inventory is sold or replaced during a reporting period. Higher turnover generally reflects faster stock movement and lower capital commitment, although interpretation must account for possible stockouts, demand variability, and differences

among retail categories (Nicho, 2020). Days in inventory is also widely used in the literature, but it was not included as a primary indicator because inventory turnover could be calculated directly from the available data.

Distribution-network scale was measured using the disclosed number of stores. Store counts were treated as indicators of physical market coverage and logistics requirements rather than direct measurements of distribution efficiency. Because observations were limited and reported at different dates, store-network information was analyzed descriptively.

Data Analysis

The analysis began with data tabulation and validation. Financial values were aligned by company and year, while missing observations were retained as unavailable rather than replaced by estimates. Descriptive trend analysis was then used to examine changes in revenue, inventory, cost of goods sold, inventory turnover, and store count.

Annual growth analysis was applied to sales and inventory. Cross-company comparisons focused on growth direction, relative scale, and consistency over time. Inventory turnover was interpreted as an efficiency indicator, while changes in turnover were evaluated alongside inventory and cost-of-goods-sold growth to avoid simplistic conclusions. For example, a declining turnover ratio may indicate weaker efficiency, but it may also reflect deliberate inventory accumulation to support store expansion or product availability.

The study also used graphical analysis, including revenue trend charts, inventory growth charts, inventory-turnover comparisons, and distribution-network visualizations. These techniques are appropriate for an unbalanced secondary dataset because they reveal observable patterns without imposing causal assumptions unsupported by the data.

The literature identifies fixed-effects models, dynamic panel estimators, and Arellano–Bond techniques as appropriate when researchers possess sufficiently large firm-year datasets and need to control for unobserved heterogeneity or endogeneity (Djaja & Yuan, 2023; Forehand et al., 2021). Time-series and panel models may also incorporate macroeconomic controls such as inflation, gross domestic product, or industry shocks (Fu et al., 2024; Zhi et al., 2024). Data Envelopment Analysis offers an additional non-parametric method for comparing multiple inputs and outputs across firms (Putra & Muzakir, 2020; Li, 2023). These advanced techniques were not applied because the present dataset contains relatively few firms, incomplete annual series, and limited standardized input-output variables.

Data Reliability and Analytical Limitations

Reliability was strengthened by prioritizing audited and official corporate disclosures, maintaining consistent units, documenting derived values, and distinguishing direct observations from estimates. All formulas were applied uniformly across companies and years. Nevertheless, differences in reporting scope, retail format, fiscal disclosure practices, and data availability may affect comparability.

The study therefore treats logistics capability as an operational construct represented by inventory efficiency, sales development, and distribution-network scale. These measures cannot be interpreted as direct indicators of customer satisfaction, customer loyalty, or repurchase intention.

Furthermore, because the analysis is descriptive, observed relationships should be interpreted as associations rather than causal effects. Future studies with balanced panel data could extend the analysis through fixed-effects regression, dynamic panel estimation, macroeconomic controls, or Data Envelopment Analysis.

RESULT AND DISCUSSION

Overview of the Dataset

The empirical analysis covered five publicly listed Indonesian retail companies: PT Sumber Alfaria Trijaya Tbk (AMRT), PT Midi Utama Indonesia Tbk (MIDI), PT Mitra Adiperkasa Tbk (MAPI), PT Erajaya Swasembada Tbk (ERAA), and PT Aspirasi Hidup Indonesia Tbk (ACES). The observation period extended from 2020 to 2024, although the number of available observations differed across companies and variables. Complete five-year revenue data were available for AMRT and ERAA, while shorter annual series were available for MIDI, MAPI, and ACES. Inventory data were sufficiently complete for AMRT and partially available for MIDI. Inventory turnover could therefore be calculated consistently only for AMRT and for MIDI in 2022.

The results are presented descriptively because the dataset is unbalanced and contains too few standardized firm-year observations to support reliable panel regression. The empirical findings focus on four dimensions: sales performance, inventory management, inventory efficiency, and distribution-network scale. All monetary values are expressed in billions of Indonesian rupiah.

Sales Performance

Table 1. Net Sales or Revenue of the Sampled Retail Companies, 2020–2024

Company	2020	2021	2022	2023	2024
AMRT	75,826.880	84,904.301	96,924.686	106,944.683	118,227.031
MIDI	—	13,584.036	15,622.539	approximately 17,350.000	approximately 19,886.570*
ERAA	34,113.450	43,466.980	49,471.480	60,139.410	65,279.690
ACES	—	—	7,620.000	8,583.000	8,639.000
MAPI	14,847.000	18,424.000	26,937.000	—	—

*The 2024 MIDI value was estimated by applying the reported 14.62% annual growth rate to approximate 2023 revenue.

AMRT recorded continuous revenue expansion throughout the observation period. Net revenue increased from Rp75.827 trillion in 2020 to Rp118.227 trillion in 2024, representing cumulative growth of approximately 55.9%. Annual growth amounted to approximately 12.0% in 2021, 14.2% in 2022, 10.3% in 2023, and 10.6% in 2024. The results indicate that AMRT maintained double-digit or near-double-digit annual growth throughout the period.

ERAA also demonstrated strong revenue development. Net sales increased from Rp34.113 trillion in 2020 to Rp65.280 trillion in 2024, equivalent to cumulative growth of approximately 91.4%. Annual growth was particularly high in 2021, at approximately 27.4%, followed by 13.8% in 2022, 21.6% in 2023, and 8.5% in 2024. Although its growth rate moderated in the final year, ERAA nearly doubled its sales over the five-year period.

MIDI's revenue increased from Rp13.584 trillion in 2021 to Rp15.623 trillion in 2022, representing growth of approximately 15.0%. Revenue was subsequently reported at approximately Rp17.350 trillion in 2023. The estimated 2024 value of Rp19.887 trillion implies an annual increase of 14.62%. Because the 2023 value was approximate and the 2024 value was derived rather than directly extracted from an audited statement, these observations should be interpreted cautiously. MAPI increased revenue from Rp14.847 trillion in 2020 to Rp18.424 trillion in 2021 and Rp26.937 trillion in 2022. These changes correspond to annual growth of approximately 24.1% and 46.2%, respectively. The large increase in 2022 indicates substantial top-line expansion, although the absence of 2023 and 2024 observations prevents assessment of whether this pace was sustained. ACES reported sales of Rp7.620 trillion in 2022, Rp8.583 trillion in 2023, and Rp8.639 trillion in 2024. Sales increased by approximately 12.6% in 2023 but only 0.7% in 2024. Among the companies with available 2024 observations, ACES therefore displayed the slowest sales growth in the final year.

Overall, the firms exhibited heterogeneous growth trajectories. This pattern is consistent with previous evidence that listed retailers in emerging markets do not follow a uniform performance path and that sales outcomes vary with business model, market structure, inventory practices, digital capability, and institutional conditions (Bakir & Sadersah, 2023; Nuraini, 2021; Akbar & Lanjarsih, 2023; Li, 2023; Zisoudis et al., 2020). Prior studies identify digital expansion, omnichannel integration, assortment availability, demand forecasting, and coordinated inventory decisions as important drivers of retail sales growth (Gajjar, 2024; Melo et al., 2023). The present financial data do not directly measure these drivers, but they provide evidence of substantial top-line expansion among most sampled companies.

Inventory Management

Table 2. Net Inventory, 2020–2024

Company	2020	2021	2022	2023	2024
AMRT	7,640.169	8,755.334	9,128.428	10,094.023	11,774.822
MIDI	—	1,811.446	2,007.569	—	2,701.369
ERAA	—	—	—	—	—
ACES	—	—	—	—	—
MAPI	—	—	—	—	—

AMRT's inventory increased from Rp7.640 trillion in 2020 to Rp11.775 trillion in 2024, representing cumulative growth of approximately 54.1%. Annual inventory growth was approximately 14.6% in 2021, 4.3% in 2022, 10.6% in 2023, and 16.6% in 2024. The largest annual increase occurred in 2024.

The relationship between AMRT's sales and inventory growth varied over time. In 2021, inventory growth exceeded revenue growth. In 2022, revenue increased substantially faster than inventory. In 2023, the two indicators grew at similar rates. In 2024, inventory again increased faster than revenue. These results show that inventory investment did not move in a fixed proportion to sales and may have reflected changes in assortment, procurement timing, network requirements, or anticipated demand.

MIDI's inventory increased from Rp1.811 trillion in 2021 to Rp2.008 trillion in 2022, equivalent to growth of approximately 10.8%. By 2024, inventory had reached Rp2.701 trillion. Because the

2023 value was unavailable, the annual change for 2024 could not be calculated. Over the available 2021–2024 interval, inventory increased by approximately 49.1%.

The literature indicates that inventory investment can support product availability when it is integrated with accurate information systems, replenishment controls, and demand monitoring. Digital and web-based inventory systems may improve stock accuracy and reduce stockout risk across physical and omnichannel retail operations (Aguedo et al., 2024; Nuraini, 2021; Li, 2023; Zhuang et al., 2023). Nevertheless, the present results measure inventory value rather than actual shelf availability. Consequently, increased inventory should be interpreted as evidence of greater stock investment, not as direct confirmation that customer-facing product availability improved. Inventory is also a major component of working capital. Prior empirical studies show that inventory, cash turnover, receivables, and payables jointly shape liquidity and return on assets (Mubarak et al., 2021; Wamuyu et al., 2024). In the present sample, AMRT’s sustained inventory expansion accompanied continuous revenue growth, while MIDI’s inventory growth occurred alongside both revenue growth and store-network expansion. These patterns are compatible with the proposition that inventory investment can support business expansion, but they do not establish a causal effect.

Cost of Goods Sold

Table 3 presents cost of goods sold for AMRT and ERAA, the two companies for which complete five-year data were available.

Company	2020	2021	2022	2023	2024
AMRT	60,414.446	67,329.674	76,902.242	83,878.566	92,861.550
ERAA	30,703.440	38,661.090	44,109.940	53,691.600	58,003.960

AMRT’s cost of goods sold increased by approximately 53.7% between 2020 and 2024, from Rp60.414 trillion to Rp92.862 trillion. This increase was slightly lower than the company’s cumulative revenue growth of approximately 55.9%. ERAA’s cost of goods sold increased from Rp30.703 trillion to Rp58.004 trillion, or approximately 88.9%, compared with cumulative sales growth of approximately 91.4%.

For both firms, sales grew marginally faster than cost of goods sold over the full observation period. This pattern suggests that the growth in top-line revenue was not entirely absorbed by proportional increases in merchandise costs. However, the analysis does not incorporate operating expenses, financing costs, taxation, or product-mix changes and therefore cannot be used to infer overall profitability.

Inventory Efficiency

Table 4. Inventory Turnover

Company	2021	2022	2023	2024
AMRT	8.21	8.60	8.73	8.49
MIDI	—	6.11	—	—

AMRT’s inventory turnover increased from 8.21 times in 2021 to 8.60 times in 2022 and reached 8.73 times in 2023. The ratio then declined to 8.49 times in 2024. The increase between 2021 and 2023 indicates that cost of goods sold grew faster than average inventory during that interval. The

2024 decline occurred because average inventory expanded more rapidly relative to cost of goods sold.

The reduction from 8.73 to 8.49 times was modest, amounting to approximately 2.7%. Therefore, the result does not indicate a sharp deterioration in stock efficiency. It instead suggests a slight increase in the amount of inventory required to support each unit of merchandise cost. The available data do not reveal whether the additional stock reflected slower movement, a broader assortment, preparation for further network expansion, supply-risk mitigation, or an intentional product-availability strategy.

MIDI recorded inventory turnover of 6.11 times in 2022. A direct longitudinal assessment was impossible because the required inventory and cost data were incomplete for the other years. A strict comparison with AMRT should also be avoided because the firms may differ in assortment breadth, purchasing arrangements, retail format, and inventory composition.

Previous research generally associates faster inventory turnover with improved asset utilization, lower carrying costs, stronger liquidity, and higher profitability when turnover results from effective demand and replenishment processes (Nuraini, 2021; Mistry & Vyas, 2021). However, turnover is influenced by demand volatility, product variety, assortment design, supplier collaboration, digital integration, promotional periods, and financial constraints (Ali & Kaur, 2022). An extremely high ratio may also indicate insufficient stock and potential service-level risks. The results therefore support a balanced interpretation: turnover is a useful efficiency indicator, but it is not an unambiguous measure of logistics quality.

Distribution-Network Scale

Table 5. Available Distribution-Network Indicators

Company	Reporting period	Number of stores	Data note
AMRT	August 2024	22,959	Management presentation; not an automatic year-end count
MIDI	2022	2,363	Official disclosure
MIDI	2023	2,906	Official disclosure

MIDI's number of stores increased from 2,363 in 2022 to 2,906 in 2023, an expansion of 543 stores or approximately 23.0%. This increase coincided with revenue growth from Rp15.623 trillion to approximately Rp17.350 trillion. The results demonstrate simultaneous expansion in physical network scale and sales, although they do not establish that store growth alone caused the increase in revenue.

AMRT reported approximately 22,959 stores in August 2024. This observation confirms the large scale of its network but cannot be directly compared with MIDI's year-end figures without accounting for reporting dates, store formats, subsidiaries, and classification methods. Data on distribution centers, cities served, and annual network expansion were unavailable consistently across the sample and were therefore not estimated.

The literature suggests that a broader distribution network can enhance market coverage, replenishment responsiveness, and product access when physical expansion is supported by coordinated forecasting, supplier collaboration, and integrated information systems (Djaja & Yuan,

2023; Chen et al., 2024). Network expansion can also increase inventory requirements and operating complexity. The present findings show that MIDI's store expansion occurred alongside higher inventory and sales, but a more complete dataset would be necessary to estimate the efficiency or marginal performance contribution of each additional outlet.

Consolidated Empirical Findings

The results reveal four principal patterns. First, all sampled companies with repeated observations recorded revenue growth, although the rate and consistency differed substantially. Second, AMRT and MIDI increased inventory alongside business expansion. Third, AMRT maintained relatively stable inventory turnover between 8.21 and 8.73 times before a modest decline to 8.49 times in 2024. Fourth, the available network data indicate substantial physical expansion, particularly for MIDI between 2022 and 2023.

These results provide descriptive support for an association among sales expansion, inventory investment, and distribution-network development. However, the evidence is insufficient to confirm causality or to test the proposed hypotheses statistically. In addition, sales, inventory, turnover, and store counts represent organizational and operational indicators. They do not directly measure customer satisfaction, loyalty, service quality, or repurchase intention.

The findings indicate that logistics capability, inventory investment, inventory efficiency, and distribution-network development are closely associated with the operational growth of the sampled Indonesian retail companies. Across the available observations, revenue generally increased alongside higher inventory balances and, where data were available, expansion in the number of stores. AMRT recorded sustained revenue growth between 2020 and 2024 while maintaining inventory turnover within a relatively narrow range. MIDI similarly experienced revenue and inventory growth alongside substantial store expansion. ERAA, ACES, and MAPI also reported positive sales trajectories over their respective observation periods. These patterns are broadly consistent with previous empirical studies showing that logistics capability, supported by integrated planning, information systems, inventory coordination, and efficient asset utilization, is associated with stronger operational and financial performance in retail firms (Bakir & Sadlersah, 2023; Nuraini, 2021; Mubarak et al., 2021).

The AMRT results provide the clearest longitudinal evidence because complete revenue, inventory, cost-of-goods-sold, and inventory-turnover series were available. Its revenue increased from Rp75.83 trillion in 2020 to Rp118.23 trillion in 2024, while inventory increased from Rp7.64 trillion to Rp11.77 trillion. Inventory turnover rose from 8.21 times in 2021 to 8.73 times in 2023 before declining modestly to 8.49 times in 2024. The decline should not be interpreted automatically as evidence of deteriorating logistics performance. Inventory turnover is influenced by assortment breadth, procurement schedules, demand volatility, supplier reliability, promotional cycles, and deliberate stock-building decisions. Prior research similarly emphasizes that high turnover is beneficial only when supported by reliable replenishment, because excessively lean inventory may increase stockout risk and reduce service levels (Sweeney et al., 2022; Aguedo et al., 2024; Chen et al., 2024). The AMRT pattern therefore suggests a relatively stable inventory system rather than a pronounced efficiency loss.

The findings also reinforce the importance of interpreting inventory investment in relation to business expansion. MIDI's inventory increased from Rp1.81 trillion in 2021 to Rp2.70 trillion in 2024, while its store network expanded from 2,363 outlets in 2022 to 2,906 in 2023. This simultaneous growth is compatible with the operational requirement to position stock across a broader retail network. The increase in inventory may therefore reflect greater product-distribution needs rather than inefficient working-capital use. Previous studies show that inventory investment can support product availability and replenishment performance when combined with accurate forecasting, digital inventory controls, and integrated information sharing (Aguedo et al., 2024; Nuraini, 2021; Li, 2023; Zhuang et al., 2023). Nevertheless, the current data measure financial inventory balances rather than actual shelf availability, fill rates, or stockout frequency. The results can therefore demonstrate increased stock commitment but cannot confirm that product availability improved at the customer level.

The relationship between inventory efficiency and operational performance can be explained through the Resource-Based View and Dynamic Capabilities Theory. From the Resource-Based View, logistics systems, inventory routines, supplier relationships, and information infrastructure represent valuable organizational resources that may support sustained competitive advantage when they are difficult to replicate and effectively coordinated (Zisoudis et al., 2020; Mubarak et al., 2021). Dynamic Capabilities Theory extends this logic by emphasizing the ability of firms to sense demand changes, seize market opportunities, and reconfigure logistics resources in response to changing retail conditions (Djaja & Yuan, 2023; Ngari & Kamau, 2021). In this study, sustained revenue growth accompanied by inventory and network expansion may be interpreted as evidence that firms adjusted their operating resources to changing market requirements. However, because the analysis is descriptive, it cannot establish whether these capabilities caused the observed sales growth.

The heterogeneous sales trajectories across the sample also illustrate that logistics capability does not operate independently of business model and market context. ERAA nearly doubled its sales between 2020 and 2024, whereas ACES recorded only limited growth between 2023 and 2024. These differences may reflect variation in product categories, consumer demand, channel strategies, assortment structure, digital integration, and expansion priorities. Previous research similarly reports that the effects of inventory turnover and logistics capability vary across markets and retail formats (Djaja & Yuan, 2023; Chen et al., 2024). Consequently, a higher turnover ratio or faster sales growth should not be treated as universally superior without considering the operating characteristics of each retailer.

From a managerial perspective, the results suggest that inventory investment, network expansion, and efficiency must be managed as an integrated system. Expanding the number of stores without corresponding improvements in demand forecasting, replenishment coordination, and information visibility may increase stockholding costs and operational complexity. Conversely, minimizing inventory too aggressively may weaken service reliability. Managers should therefore align inventory policies with store-network design, supplier capacity, assortment decisions, and expected demand. Digitized inventory systems, integrated sales and operations planning, supplier collaboration, and real-time information sharing can help firms balance product availability with working-capital efficiency (Djaja & Yuan, 2023; Chen et al., 2024).

The findings also have implications for how retail performance is conceptualized. Sales growth, inventory turnover, inventory value, and store count are useful indicators of operational scale and logistics capability, but they do not directly measure customer satisfaction, loyalty, or repurchase intention. Customer outcomes are influenced by delivery reliability, product availability, return handling, last-mile service quality, information transparency, and the broader shopping experience (Russo et al., 2022; Yunus, 2021). Therefore, the current findings should be interpreted as evidence of organizational and operational performance rather than customer response.

Future research should connect these operational indicators with customer-level data. A stronger design could combine audited financial measures with customer surveys, online review data, return rates, delivery-performance records, or stockout indicators. Longitudinal regression, Data Envelopment Analysis, and structural equation modeling could then be used to examine whether logistics capability improves customer satisfaction and repurchase intention through logistics service quality or product availability (Putra & Muzakir, 2020; Forehand et al., 2021). Such an approach would provide a more complete explanation of how operational logistics investments generate both firm-level performance and customer value in emerging retail markets.

CONCLUSION

This study examined logistics capability, inventory efficiency, and retail performance among five publicly listed Indonesian retail companies using secondary financial and operational data covering 2020–2024, subject to data availability. The analysis focused on net sales or revenue, inventory, cost of goods sold, inventory turnover, and distribution-network scale. The findings show that all companies with repeated observations recorded sales growth, although the magnitude and consistency of growth differed substantially across retail formats.

AMRT provided the most complete longitudinal evidence. Its net revenue increased from Rp75.83 trillion in 2020 to Rp118.23 trillion in 2024, while net inventory rose from Rp7.64 trillion to Rp11.77 trillion. Inventory turnover remained relatively stable, increasing from 8.21 times in 2021 to 8.73 times in 2023 before declining moderately to 8.49 times in 2024. This decrease should not be interpreted automatically as a deterioration in logistics quality because the higher inventory balance may reflect deliberate stock accumulation, broader assortment requirements, supply-risk mitigation, or efforts to support product availability.

MIDI also demonstrated concurrent growth in revenue, inventory, and store-network scale. Its number of stores increased from 2,363 in 2022 to 2,906 in 2023, while inventory rose from Rp1.81 trillion in 2021 to Rp2.70 trillion in 2024. ERAA recorded particularly strong sales expansion, nearly doubling its net sales between 2020 and 2024. MAPI also achieved substantial growth during the available 2020–2022 period, whereas ACES experienced more moderate growth, particularly between 2023 and 2024. These differences indicate that retail performance is influenced by company-specific business models, product categories, demand conditions, and expansion strategies.

The main contribution of this study lies in its comparative use of publicly disclosed financial and operational data to evaluate logistics capability in Indonesia's listed retail sector. It demonstrates that inventory turnover, inventory investment, sales development, and store-network scale can serve as practical indicators of operational logistics capability when customer-level data are

unavailable. The study also supports the complementary use of the Resource-Based View and Dynamic Capabilities Theory. Logistics systems, inventory routines, information infrastructure, and distribution networks may function as strategic organizational resources, while the capacity to adapt these resources to demand changes represents a dynamic capability.

The results have practical implications for retail managers. Inventory investment and network expansion should be coordinated with demand forecasting, supplier capacity, replenishment systems, assortment planning, and working-capital objectives. A high turnover ratio is not inherently optimal if it produces stockouts, while lower turnover does not necessarily indicate inefficiency when additional inventory supports expansion or service reliability. Managers should therefore evaluate inventory efficiency alongside product availability, network growth, and cost structure rather than relying on a single ratio.

Several limitations must be acknowledged. The dataset was unbalanced, some company-year observations were unavailable, and MIDI's 2024 revenue was estimated rather than directly extracted from audited statements. Store-count data were also reported at different dates, limiting direct comparison. Most importantly, the variables used in this study represent operational and financial performance rather than customer satisfaction, loyalty, or repurchase intention.

Future research should integrate audited corporate data with customer surveys, online reviews, stockout records, delivery-performance measures, return rates, and logistics-service-quality indicators. Larger balanced datasets would also permit fixed-effects regression, dynamic panel estimation, Data Envelopment Analysis, or structural equation modeling. Such extensions would clarify whether logistics capability improves financial performance directly or through intermediate outcomes such as product availability, service quality, customer satisfaction, and repurchase intention.

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