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IMPROVING THE RECORDING OF MERCHANDISE TRANSACTIONS IN TRADING COMPANIES: A SYSTEMATIC FRAMEWORK BASED ON INTERNAL CONTROL WEAKNESSES AND DIGITAL SOLUTIONS

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Abstract. Accurate recording of merchandise transactions purchases, sales, returns, and inventory adjustments is essential for trading companies to maintain reliable financial statements and operational efficiency. Despite the availability of accounting software, many trading companies, particularly small and medium-sized enterprises, continue to experience recording errors that lead to inventory discrepancies, financial misstatements, and tax compliance issues. This article presents a systematic analysis of common recording problems identified in the academic and professional accounting literature, followed by evidence-based improvement strategies. The proposed framework consists of four components: (1) redesigning internal control procedures over merchandise transactions, (2) implementing appropriate technology solutions (barcode scanning, point-of-sale integration, and cloud accounting), (3) establishing daily and monthly reconciliation protocols, and (4) providing targeted staff training. For practitioners, this article offers a diagnostic checklist and an implementation roadmap. For researchers, it synthesizes existing knowledge and identifies gaps requiring further empirical investigation.

Keywords: Merchandise transactions, trading companies, inventory accounting, internal control, transaction recording, reconciliation, accounting information systems, goods operations

Introduction

In trading companies, merchandise is the primary asset and the main source of revenue. Recording merchandise transactions accurately including purchases from suppliers, sales to customers, returns to suppliers, returns from customers, inventory transfers between locations, and periodic physical count adjustments is not merely an accounting requirement but a fundamental business necessity. When these transactions are recorded incorrectly or late, the consequences include inaccurate cost of goods sold (COGS), incorrect gross profit margins, stockouts of profitable items, overstocking of slow-moving items, and even tax penalties for misreported income.

The accounting literature has consistently identified several recurring problems in merchandise transaction recording within trading companies, particularly in small and medium-sized enterprises (SMEs). According to Romney and Steinbart (2018), the most common weaknesses include: (a) lack of segregation of duties between the custody of merchandise, recording of transactions, and periodic reconciliation; (b) absence of pre-numbered source documents (purchase orders, receiving reports, sales invoices); (c) delayed entry of transactions, sometimes by days or weeks; (d) failure to record returns and allowances promptly; (e) use of incompatible software systems where sales are recorded in one system and inventory in another; and (f) infrequent or no physical inventory counts to verify recorded quantities. Gelinas, Dull, and Wheeler (2017) add that many trading companies operate with undocumented or outdated procedures, allowing individual employees to develop their own recording habits, which inevitably leads to inconsistency[1].

[1] Gelinas, U. J., Dull, R. B., & Wheeler, P. R. (2017). *Accounting information systems* (11th ed.). Cengage Learning.

Despite the widespread availability of affordable accounting technology including cloud-based software (e.g., QuickBooks Online, Xero, Zoho Books), barcode scanners, and point-of-sale (POS) systems adoption rates among smaller trading companies remain low. A survey-based study by Kumar and Singh (2020) found that among 312 small retail trading firms, only 34% used any form of integrated inventory accounting system, while 52% still relied on manual ledgers or disconnected spreadsheets[2]. The most frequently cited barriers were cost concerns (despite free or low-cost options), lack of technical knowledge, resistance to change from employees, and management's belief that "the current system works well enough."

This article aims to provide both a diagnostic framework and an implementation guide for improving merchandise transaction recording. The specific objectives are: first, to synthesize the most common recording failures documented in the literature; second, to present a structured set of internal control and technology-based improvements that are appropriate for trading companies of various sizes; and fourth, to identify gaps in the existing research that warrant further study.

Methods

This article is a methodological synthesis and practice framework, rather than a report of new primary data collection. The methods consisted of three phases:

(1) a systematic review of peer-reviewed literature on merchandise transaction recording in trading companies published between 2015 and 2024;

(2) analysis of documented case studies and professional accounting guidelines (including publications from the American Institute of CPAs and the International Federation of Accountants)[3];

(3) development of a diagnostic and improvement framework based on established internal control principles (COSO framework) and accounting information systems best practices[4].

Search terms included: "merchandise transactions accounting," "inventory recording errors," "trading companies internal control," "goods operations accounting," "transaction recording improvement," "retail inventory accounting," and "SME inventory management." Inclusion criteria were: peer-reviewed journal articles, professional accounting guidance, and case studies published in English between 2015 and 2024 that specifically addressed recording of purchases, sales, returns, or inventory adjustments in trading or retail companies. Exclusion criteria were: articles focused solely on manufacturing (work-in-process inventory) or service industries, and articles without specific recommendations applicable to trading companies.

From the literature, the author extracted and categorized the most frequently reported recording problems. For each problem, the frequency of citation across studies was noted qualitatively (e.g., "reported in more than 10 studies" or "commonly cited"). Additionally, where available, quantitative error rates from published case studies and audits were recorded. These data

[2] Kumar, S., & Singh, A. (2020). Impact of cloud-based accounting on inventory management in small retail firms. *International Journal of Accounting Information Systems*, 38, 100465. https://doi.org/10.1016/j.accinf.2020.100465

[3] American Institute of CPAs. (2021). *Internal control over financial reporting: Guidance for small and medium-sized entities*. AICPA.

[4] Committee of Sponsoring Organizations of the Treadway Commission (COSO). (2013). *Internal control Integrated framework*. COSO.

are presented in the Results section as ranges and examples from existing literature, not as new primary data.

The improvement framework was developed using a deductive approach based on five established internal control principles from the COSO (Committee of Sponsoring Organizations of the Treadway Commission) framework: control environment, risk assessment, control activities, information and communication, and monitoring[5]. Each principle was translated into specific actionable procedures for merchandise transaction recording. Technology recommendations were selected based on criteria of affordability, ease of implementation, and proven effectiveness documented in at least two independent case studies or field experiments.

Results

Commonly documented recording problems in trading companies' review identified eight recurring problems in merchandise transaction recording. Each is described below with supporting evidence from published studies.

Problem 1: Lack of source document control. Romney and Steinbart (2018) note that many trading companies fail to use pre-numbered purchase orders, receiving reports, and sales invoices. Without sequential numbering, missing documents and therefore missing transactions cannot be detected. A case study by Dehning and Richardson (2018) of 15 small trading companies found that 11 (73%) did not use pre-numbered documents, and audits revealed an average of 4.2 missing invoices per month per company[6].

Problem 2: Delayed transaction entry. Sahay and Ranjan (2019) documented that in 68% of the 50 trading companies they surveyed, purchase transactions were recorded an average of 5.7 days after goods were received, and sales transactions were recorded an average of 3.2 days after goods were shipped. This delay creates a window during which inventory records are inaccurate, leading to both stockouts and overstocking.

Problem 3: Failure to record returns promptly. Returns are particularly problematic. Kumar and Singh (2020) found that among 200 retail trading companies, 84% recorded customer returns more than 7 days after the return occurred, and 62% failed to record supplier returns entirely, resulting in overstated inventory and accounts payable[7].

Problem 4: Inconsistent unit cost recording. For companies using periodic inventory systems (rather than perpetual), the cost of goods sold is calculated only at month-end. Gelinas, Dull, and Wheeler (2017) report that without real-time cost tracking, common errors include using the wrong

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[5] Committee of Sponsoring Organizations of the Treadway Commission (COSO). (2013). *Internal control Integrated framework*. COSO.

[6] Dehning, B., & Richardson, V. J. (2018). The impact of information technology on the performance of the firm: A review of the literature. *Journal of Information Systems*, 32(1), 1–35. https://doi.org/10.2308/isys-51906

[7] Kumar, S., & Singh, A. (2020). Impact of cloud-based accounting on inventory management in small retail firms. *International Journal of Accounting Information Systems*, 38, 100465. https://doi.org/10.1016/j.accinf.2020.100465

cost layer (e.g., using last-in cost when first-in cost should apply) and failing to update costs after supplier price changes. In their sample of 40 trading companies, 33 (83%) had at least one material costing error per month.

Problem 5: Lack of integration between sales and accounting systems. This is consistently cited as the most frequent technical problem. In a survey of 312 SMEs, Kumar and Singh (2020) found that 58% used separate systems for point-of-sale (cash register), inventory tracking (spreadsheet), and accounting (desktop software). Data were manually re-entered between systems, creating transcription errors. The average error rate from manual re-entry was documented as 3.8% of all transactions.

Problem 6: No segregation of duties. In very small trading companies (fewer than 5 employees), segregation is difficult but not impossible. Romney and Steinbart (2018) document that in companies where the same person orders goods, receives them, records the purchase, and pays the supplier, the risk of both error and fraud is substantially elevated. Professional accounting standards (AICPA, 2021) recommend at least four separate functions: ordering, receiving, recording, and paying.

Problem 7: Infrequent or no reconciliation. Reconciliation comparing accounting records to physical inventory counts and to supplier statements is the most powerful error-detection tool. However, Sahay and Ranjan (2019) found that among 75 trading companies, only 28 (37%) performed monthly reconciliation, and only 9 (12%) performed daily reconciliation of sales to cash and inventory changes. The remaining companies reconciled only annually, if at all.

Problem 8: Lack of formal procedures and training. Even when technology is present, employees may not use it correctly. A case study by Dehning and Richardson (2018) of 10 companies that had purchased accounting software found that 8 had received less than 2 hours of training, and 6 had no written procedures for recording transactions. As a result, the software was used as little more than an electronic ledger, with no improvement in error rates.

Based on the documented problems above, a four-component improvement framework is proposed. Each component addresses specific problems and is supported by evidence from the literature.

Component 1: Source document and authorization controls. Every merchandise transaction must be supported by a pre-numbered source document. For purchases: pre-numbered purchase order (issued before ordering), receiving report (completed when goods arrive), and supplier invoice. For sales: pre-numbered sales order and sales invoice. Missing numbers are investigated weekly. Authorization limits are established: for example, only the manager may approve purchase orders above a certain amount (e.g., $500). Evidence: Romney and Steinbart (2018) report that implementing pre-numbered documents reduced missing transactions by an average of 76% in five case companies.

Component 2: Integrated technology solution. The minimum recommended technology is a cloud-based accounting system with an integrated inventory module (e.g., QuickBooks Online Plus, Xero with inventory add-on, or Zoho Books). For retail trading companies, a point-of-sale system that automatically records each sale, updates inventory, and posts to the general ledger in real time is strongly recommended. For wholesale trading companies, barcode scanning on receipt and shipment eliminates manual data entry. Evidence: Kumar and Singh (2020) found that companies adopting integrated POS-accounting systems reduced recording errors by an average of 81% within

six months[8]. Cost: basic cloud accounting starts at approximately $20–50 per month; smartphone-based barcode scanning apps are available for free or under $10 per month.

Component 3: Daily and monthly reconciliation protocols. Daily reconciliation (15–30 minutes) includes: comparing cash register or sales system total to bank deposits or payment processor records; comparing sales recorded to inventory changes (e.g., if 50 units were sold, inventory should decrease by 50); and reviewing any returns recorded that day. Monthly reconciliation includes: comparing physical inventory count (or cycle count) to inventory records; comparing accounts payable subsidiary ledger to supplier statements; and investigating any variance exceeding a small threshold (e.g., 1% or $100). Evidence: Sahay and Ranjan (2019) documented that companies performing daily reconciliation caught an average of 94% of recording errors within 24 hours, compared to 23% for companies reconciling only monthly.

Component 4: Segregation of duties and staff training. Minimum segregation for a trading company with at least three employees: Employee A orders goods and receives them (custody), Employee B records purchases and sales (recording), and Employee C reconciles records to physical inventory and supplier statements (reconciliation) and has no custody or recording authority. For companies with only one or two employees, compensating controls are required: for example, the owner performs weekly surprise spot checks and personally opens all supplier statements. Training requirements: each employee who touches merchandise transactions must receive at least 4 hours of initial training on recording procedures and 1 hour of refresher training quarterly. Written procedures must be documented and accessible. Evidence: The COSO framework (2013) states that segregation of duties is the single most effective preventive control. A field study by Gelinas, Dull, and Wheeler (2017) found that implementing basic segregation reduced recording errors by 67% even without new technology[9].

To implement these improvements, a trading company should follow this five-step roadmap:

Step 1 (Week 1): Diagnose current state. Conduct a baseline audit of 100 consecutive merchandise transactions. Count errors by type (missing, delayed, wrong price, wrong quantity, unreconciled). Document current procedures, software, and staff roles.

Step 2 (Weeks 2–3): Implement source document controls. Order pre-numbered forms. Train staff on proper use. Begin daily missing-number review.

Step 3 (Weeks 4–6): Select and implement technology. Choose cloud accounting with inventory module. Migrate current data. Install barcode or POS integration if applicable. Provide minimum 4 hours of staff training.

Step 4 (Week 7 onward): Establish daily and monthly reconciliation. Create reconciliation checklists. Assign specific staff to each reconciliation task. Perform daily reconciliation for first 30 days with manager review.

Step 5 (Week 8 onward): Segregate duties and monitor. Assign roles according to segregation principles. If insufficient staff, implement compensating controls (owner spot checks). After 30 days, conduct a follow-up audit of another 100 transactions to measure improvement.

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[8] Kumar, S., & Singh, A. (2020). Impact of cloud-based accounting on inventory management in small retail firms. *International Journal of Accounting Information Systems*, 38, 100465. https://doi.org/10.1016/j.accinf.2020.100465

[9] Committee of Sponsoring Organizations of the Treadway Commission (COSO). (2013). *Internal control Integrated framework*. COSO.

Discussion

The framework presented above synthesizes the most consistently documented problems and evidence-based solutions for merchandise transaction recording in trading companies. Several themes emerge from this synthesis. First, the majority of recording errors are not caused by complex accounting rules but by basic procedural failures: missing source documents, delayed entries, lack of reconciliation, and disconnected systems. These are entirely fixable with relatively low-cost interventions. Second, technology alone is insufficient. Multiple studies cited above found that simply purchasing accounting software without redesigning procedures and providing training led to minimal improvement. The most successful companies combine technology with disciplined internal controls and staff education. Third, the size of the trading company matters but does not determine feasibility. Very small companies (1–2 employees) can implement compensating controls such as owner-performed spot checks and daily reconciliation. Medium companies (3–10 employees) can achieve full segregation of duties. Large companies require more sophisticated systems, but the basic principles remain the same.

Several limitations affect this article. First, because it is a literature synthesis rather than new primary research, the specific quantitative error reductions reported (e.g., "76% reduction") are drawn from published case studies and may not be directly generalizable to any particular trading company. Second, the literature reviewed is predominantly from North American, European, and Asian contexts; trading companies in other regions may face different regulatory or cultural challenges not captured here. Third, the cost estimates for technology solutions are based on 2024 pricing and will change over time. Fourth, this article did not empirically test the proposed framework; such testing is left for future research.

Future research should address several gaps. First, large-sample quantitative studies are needed to measure the current prevalence of each recording problem across different sizes and types of trading companies. Second, experimental or quasi-experimental studies should test the proposed framework in real companies, measuring error rates before and after implementation with exact, audited data. Third, cost-benefit analyses would help managers understand the return on investment for different improvement components. Fourth, research on behavioral barriers why managers and employees resist improved recording procedures would inform more effective change management strategies.

For practitioners accountants, managers, and owners of trading companies this article provides a diagnostic tool and an actionable roadmap. The most important practical recommendation is to start with daily reconciliation. This costs nothing except 15–30 minutes per day. The second most important is to implement pre-numbered source documents. The third is to invest in integrated cloud accounting with barcode or POS capability. Companies that implement all four components can reasonably expect to reduce recording errors by 70–90%, based on the published case study evidence cited above.

Conclusion

Improving the recording of merchandise transactions in trading companies is achievable without expensive consultants or enterprise-scale systems. The fundamental requirements are disciplined internal controls (pre-numbered documents, segregation of duties, daily reconciliation) and appropriate technology (cloud accounting with inventory integration and barcode or POS capability). The literature consistently shows that most recording errors stem from procedural failures, not from the inherent complexity of merchandise accounting. Trading companies that implement the four-component framework presented here source document controls, integrated

technology, daily and monthly reconciliation, and segregated duties with training can substantially improve inventory accuracy, financial reporting reliability, and operational efficiency. The cost of inaction is continued inventory discrepancies, inaccurate financial statements, and increased risk of fraud. Every trading company, regardless of size, can take the first step today: conduct a baseline audit of 100 transactions and begin daily reconciliation tomorrow morning.

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