

Assistance with Inventory Management, Warehousing, and Accounts Payable Recording Based on Internal Controls for MSME Aleeta Kopi

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Abstract: Micro, small, and medium-sized enterprises (MSMEs) in the coffee shop sector frequently encounter operational challenges related to poorly organized inventory, inefficient warehousing, and inadequate recording of trade payables. This community service program aimed to strengthen the internal control practices of Aleeta Kopi MSME in Makassar through practical assistance in inventory management, warehousing, and trade payable recording. A descriptive qualitative approach was employed through direct observation, interviews, socialization, hands-on training, independent practice, monitoring, and joint evaluation conducted across six sessions from June 20 to July 4, 2026. The intervention introduced a simple FIFO-based inventory card, systematic warehouse labeling and arrangement, supplier-specific trade payable cards, transaction documentation, authorization procedures, and periodic reconciliation. The results indicate improvements in the understanding and practical capabilities of the owner and employees regarding basic internal control principles, particularly segregation of duties, transaction documentation, authorization, and reconciliation. The partner was also able to independently apply the inventory and trade payable recording instruments during the practice stage. The implementation generated a more structured overview of inventory balances and outstanding obligations, including supplier-specific amounts and payment due dates. The program demonstrates that audit-based internal control principles can be adapted into simple and practical accounting tools for MSMEs. Continuous application, employee discipline, and periodic monitoring are recommended to ensure the sustainability of the improved control system and support more reliable operational and financial information.

Keywords: internal control; inventory management; warehousing; trade payables; MSMEs.

1. Introduction

Micro, small, and medium-sized enterprises (MSMEs) play a critical role in supporting economic activity, employment creation, and local entrepreneurship. Their contribution is particularly visible in consumer-oriented sectors such as food and beverages, including coffee shop businesses that have experienced increasing demand alongside the development of urban consumption patterns and coffee culture. However, business growth does not automatically imply improvements in administrative and accounting practices. MSMEs frequently operate with limited financial resources, a small number of employees, informal decision-making structures, and a strong concentration of managerial attention on sales and daily operations. These characteristics can create weaknesses in transaction documentation, inventory monitoring, and financial control. Consequently, strengthening simple but effective internal control mechanisms is important to ensure that operational activities are supported by reliable information and appropriate accountability.

Internal control is particularly important for MSMEs because it provides a mechanism for managing operational risks while improving the reliability of accounting information. Effective internal control can contribute to the efficiency of business processes, safeguard organizational resources, and reduce the likelihood of errors and irregularities. Empirical evidence indicates that internal control implementation can generate positive organizational outcomes. For example, research on Vietnamese small and medium-sized enterprises found that internal control implementation improves firm profitability through mechanisms associated with greater formalization and improved business practices. Similarly, Alshaiti (2023) demonstrates that internal control is closely associated with organizational performance and that information systems can influence the effectiveness of internal control mechanisms. These findings suggest that internal control should not be viewed exclusively as an

auditing requirement but also as a practical managerial instrument for improving the quality and reliability of business operations.

The importance of internal control becomes more evident in the management of inventory. Inventory represents an important operational resource for businesses whose activities depend heavily on raw materials. In coffee shop MSMEs, inventory may include coffee beans, milk, sugar, syrups, cups, lids, straws, and other complementary materials. Poor inventory management can lead to stock discrepancies, excessive accumulation, material shortages, product deterioration, and unnecessary operating costs. Research on inventory management has shown that inventory represents a strategically important resource and that improvements in inventory management can have meaningful implications for firm operations. Recent evidence also indicates that digital infrastructure can improve inventory management, with the effects being particularly relevant for SMEs that generally have more limited resources and operational capabilities. Moreover, inventory turnover has been associated with firm profitability, reinforcing the importance of managing inventory efficiently rather than treating it merely as a physical stockholding activity.

From an accounting and auditing perspective, inventory requires adequate documentation, physical control, authorization, and periodic reconciliation. Previous studies in the submitted manuscript have identified weaknesses in inventory control, particularly in the areas of segregation of duties and recording. Susanto and Ratnawati (2023), for example, identified weaknesses in inventory control associated with inadequate task segregation and recording, while Nugraheni et al. (2024) emphasized the role of internal audit in improving inventory control, particularly through improvements in receiving and issuing procedures. The submitted manuscript also identifies stocktaking, price testing, and cut-off procedures as important audit procedures for addressing inventory risks. Although such procedures are commonly associated with formal auditing, their underlying principles can be simplified and transferred to MSME operations through practical tools such as stock cards, labeling systems, standardized transaction documentation, and periodic physical reconciliation.

Another critical area is the management of trade payables. Coffee shop MSMEs commonly purchase raw materials from suppliers through cash or credit transactions. Credit purchases generate obligations that must be accurately recorded and monitored according to their respective due dates. Inadequate recording may result in incomplete liability information, delayed payments, duplicate payments, disputes with suppliers, or inaccurate assessments of short-term cash requirements. Previous studies cited in the manuscript demonstrate that weaknesses in trade payable controls may arise from inadequate reconciliation, insufficient authorization, and weaknesses in transaction documentation. Recent audit literature also emphasizes the importance of confirmation, cut-off procedures, and testing of management assertions to establish the completeness, existence, rights and obligations, valuation, and presentation of trade payable balances.

The relevance of accounting information quality is increasingly important as MSMEs become more integrated into competitive and rapidly changing business environments. Recent research on Vietnamese SMEs demonstrates that digital transformation in accounting can influence accounting information quality, while organizational readiness, employee awareness, technological preparedness, and top management support are important factors in accounting transformation. Nevertheless, not every MSME immediately requires sophisticated digital accounting systems. For very small businesses, the first stage of improvement may instead involve establishing basic control routines that are inexpensive, understandable, and easy to implement. Simple accounting instruments can therefore function as an initial internal control infrastructure before a business gradually adopts more advanced accounting information systems.

The importance of proportionality is particularly relevant to smaller enterprises. Internal control mechanisms designed for large corporations cannot always be transferred directly to MSMEs because smaller businesses have fewer employees, simpler organizational structures, and limited administrative capacity. Consequently, internal control for MSMEs should emphasize essential principles such as segregation of duties where feasible, authorization, documentation, safeguarding of assets, reconciliation, and monitoring while maintaining operational simplicity. This perspective is consistent with the broader recognition that smaller and less-complex entities require approaches to control and assurance that take account of their organizational characteristics. At the same time, evidence indicates that effective internal control can support broader organizational outcomes, including supply chain efficiency and resource allocation, demonstrating that internal control has operational relevance beyond compliance.

The practical relevance of these issues is reflected in the condition of Aleeta Kopi, an MSME operating in the coffee shop sector in Makassar. Based on the initial observation and interview conducted by the community service team, inventory monitoring had not been performed regularly, stock storage was not systematically documented, and trade payable records were not clearly organized according to supplier and payment due dates. The business also faced limitations in separating purchasing and recording functions, documenting transactions consistently, and performing periodic reconciliation. These conditions created potential risks of discrepancies between physical inventory and accounting records, material waste, delayed supplier payments, and unreliable information regarding outstanding obligations. The initial conditions and identified problems are documented in the original activity manuscript.

The gap addressed by this community service activity lies in translating formal internal control and auditing principles into practical mechanisms that can be implemented by a small coffee shop with limited organizational resources. Existing studies predominantly discuss internal control, inventory auditing, trade payable procedures, or accounting information systems within formal organizational settings. The present activity instead emphasizes the practical adaptation of these principles to an MSME environment through direct education, hands-on training, independent practice, monitoring, and evaluation. This approach is important because research has established the value of internal control, but the effectiveness of control principles in small businesses ultimately depends on whether the procedures are sufficiently simple to be understood and consistently applied by business owners and employees.

Accordingly, this community service program aimed to assist Aleeta Kopi in strengthening internal control over inventory management, warehousing, and trade payable recording. The intervention introduced a FIFO-based stock card, a warehouse labeling and arrangement system, supplier-specific trade payable cards with due-date monitoring, transaction documentation, simple segregation of duties, authorization procedures, and periodic reconciliation. The activity was conducted through six sequential sessions involving initial observation, socialization, practical training, independent practice, monitoring, evaluation, and handover of the recording instruments.

The contribution of this activity is twofold. First, it provides a practical internal control model that is relatively simple, low-cost, and adaptable to the operational characteristics of coffee shop MSMEs. Second, it provides contextual learning for accounting students by connecting auditing concepts with real-world MSME practices. Through this approach, internal control is positioned not merely as an audit concept but as a practical managerial mechanism for improving inventory accuracy, reducing material waste, strengthening trade payable monitoring, and supporting more reliable operational information. The activity therefore seeks to demonstrate that appropriately adapted accounting and auditing practices can provide direct value to MSMEs while simultaneously strengthening students' applied competencies in accounting and auditing.

2. Literature Review

2.1 Internal Control in MSMEs

Internal control refers to the policies, procedures, organizational mechanisms, and monitoring activities established to provide reasonable assurance that organizational objectives can be achieved effectively and efficiently, assets are adequately safeguarded, transactions are properly documented, and financial information is reliable. In the context of micro, small, and medium-sized enterprises (MSMEs), internal control is particularly important because these businesses generally operate with relatively simple organizational structures, limited human resources, and highly centralized decision-making processes.

The COSO Internal Control—Integrated Framework identifies five interrelated components of internal control: control environment, risk assessment, control activities, information and communication, and monitoring. Although the framework is widely applied in larger organizations, its fundamental principles can also be adapted to MSMEs. However, implementation should consider the scale, resources, and organizational complexity of individual businesses. For MSMEs, internal control does not necessarily require sophisticated bureaucratic procedures; rather, it can be implemented through basic mechanisms such as authorization, segregation of duties, transaction documentation, physical asset protection, reconciliation, and periodic monitoring.

Recent empirical evidence indicates that internal control contributes to organizational effectiveness and performance. Alshaiti (2023) found that internal control is associated with organizational performance and that information systems can influence the effectiveness of control mechanisms. This finding indicates that internal control should not be regarded solely as a compliance or auditing mechanism but also as a managerial instrument that supports operational efficiency and reliable information.

For MSMEs, the implementation of internal control should therefore focus on procedures that are simple, affordable, and easy to maintain. For example, purchasing activities can be separated from recording functions when human resources permit, every transaction can be supported by invoices or receipts, and physical inventory can periodically be reconciled with inventory records. Such mechanisms provide a practical foundation for reducing operational risks without imposing excessive administrative burdens on small businesses.

2.2 Inventory Management in MSMEs

Inventory constitutes an important operational resource for businesses that depend on raw materials to deliver products and services. In coffee shop MSMEs, inventory may include coffee beans, milk, sugar, syrup, cups, lids, straws, and other complementary materials. Effective inventory management is necessary to ensure product availability while minimizing excessive stock, material deterioration, waste, and unnecessary storage costs. Inventory management encompasses planning, purchasing, receiving, storing, issuing, recording, and monitoring inventory. Panigrahi et al. (2024), through a systematic review of inventory management in SMEs, identified inventory management as an important determinant of operational performance. SMEs often face greater inventory management challenges because of limited financial resources, restricted storage capacity, inadequate technological infrastructure, and limited managerial expertise.

Recent empirical evidence also demonstrates the relationship between inventory management and SME performance. Oyetade et al. (2024) found that inventory management practices are associated with SME performance, indicating that appropriate inventory policies can contribute to operational efficiency and better utilization of organizational resources. Similarly, Syamsuddin et al. (2024), in their study of SMEs in the manufacturing sector in Makassar, highlighted inventory management as an important component of business performance while identifying limitations in the adoption of

computerized inventory systems. These findings indicate that inventory improvement in MSMEs does not necessarily have to begin with sophisticated digital systems. A structured manual inventory system can serve as an initial step toward establishing inventory discipline. Stock cards, standardized recording procedures, physical inventory checks, and clear storage arrangements can provide MSMEs with basic but valuable inventory information.

2.3 Internal Control over Inventory

Internal control over inventory aims to ensure that inventory recorded in the accounting records corresponds to physical inventory, inventory movements are properly documented, and losses, damage, misuse, and recording errors are minimized. Key control activities include purchasing authorization, inspection of received goods, segregation of responsibilities, physical safeguarding, inventory cards, stocktaking, and reconciliation. Recent research supports the relationship between internal control and inventory management. Rodríguez et al. (2024) reported a positive relationship between internal control and inventory management among commercial SMEs. Their findings indicate that improvements in control activities and supervision can contribute to better inventory management practices. This evidence reinforces the argument that inventory problems are not merely accounting problems but are also closely related to the quality of the internal control system.

Nugraheni et al. (2024) similarly emphasized the role of internal audit in supporting the effectiveness of internal control over merchandise inventory, particularly through improvements in receiving and issuing procedures. Although their study was conducted within a more formal organizational context, the underlying control principles remain relevant to MSMEs. For Aleeta Kopi, these principles are translated into a practical First In First Out (FIFO)-based stock card system. FIFO is particularly relevant to coffee shop businesses because several raw materials have limited shelf lives and may experience quality deterioration. By prioritizing the use of materials received earlier, FIFO can help reduce the risk of expired or deteriorated materials. However, effective FIFO implementation requires more than recording transactions; it also requires appropriate physical warehouse organization and labeling based on receiving dates.

2.4 Warehouse Management and Inventory Storage

Warehouse management represents an important component of inventory control because the effectiveness of inventory management depends partly on how goods are received, identified, stored, protected, and issued. Poorly organized storage areas can increase the risk of inventory loss, product deterioration, incorrect material selection, and discrepancies between physical stock and accounting records. MSMEs often manage their storage areas informally because of limited space, personnel, and administrative resources. Consequently, simple warehouse control mechanisms may provide a more appropriate solution than complex warehouse management systems. Such mechanisms include labeling inventory, grouping materials according to type, arranging products according to frequency of use, separating newly received materials from older stock, restricting unnecessary access, and conducting periodic physical checks.

Panigrahi et al. (2024) identified resource constraints and limited storage capacity as important challenges faced by SMEs in inventory management. These constraints demonstrate the need for inventory and warehouse practices that are proportional to the operational characteristics of small businesses. In the context of Aleeta Kopi, warehouse organization is therefore positioned not merely as a housekeeping activity but as an internal control activity. Labeling, systematic placement, and FIFO-based storage can reduce the risk of incorrect material usage and improve the consistency between physical inventory and inventory records.

2.5 Trade Payables and Internal Control

Trade payables arise when a business acquires goods or services from suppliers through credit transactions. For MSMEs, credit purchases can provide flexibility in managing operating cash flows because payments do not necessarily have to be made immediately. Nevertheless, poorly controlled trade payables can result in inaccurate liability information, late payments, duplicate payments, supplier disputes, and difficulties in managing cash requirements. Internal control over trade payables generally involves recording credit purchases, verifying supporting documents, authorizing transactions, maintaining supplier-specific records, monitoring payment due dates, reconciling supplier statements, and recording payments accurately.

Recent studies have emphasized the importance of adequate audit procedures in evaluating trade payable balances. Benanda and Mutiha (2024) highlighted the importance of appropriate audit procedures in obtaining sufficient evidence concerning the fairness of trade payable balances. Aditya and Meita (2024) similarly demonstrated the importance of systematic procedures and supporting documentation in auditing trade payables. Although these studies primarily focus on formal audit environments, their underlying principles can be adapted to MSMEs. In the case of Aleeta Kopi, this adaptation is implemented through supplier-specific trade payable cards containing the transaction date, supplier name, amount payable, due date, and payment status. Such a simple instrument allows business owners to identify outstanding obligations and prioritize payments based on maturity dates.

2.6 Accounting Information Quality and Simple Accounting Systems

The quality of accounting information is essential for MSMEs because operational and financial decisions depend on the availability of accurate and timely information. Information concerning inventory balances and outstanding liabilities, for example, can help business owners determine when to purchase raw materials, estimate short-term cash requirements, and prioritize supplier payments. The development of digital technology has encouraged MSMEs to adopt accounting information systems, inventory applications, and other digital management tools. Recent research indicates that digitalization can improve information quality and operational efficiency. However, technological readiness, financial resources, employee competence, and management support remain important determinants of successful implementation.

For very small businesses, therefore, the adoption of a sophisticated accounting system may not always be the most appropriate initial solution. A structured manual recording system can serve as an intermediate stage before digital transformation. Anugrahani et al. (2026), for example, demonstrated the relevance of inventory management applications in strengthening internal control within MSMEs, particularly in addressing problems associated with manual inventory recording. Accordingly, the stock cards and trade payable cards introduced at Aleeta Kopi should not be viewed as substitutes for future digital accounting systems. Instead, they constitute a basic internal control infrastructure that can establish recording discipline and improve the reliability of operational information before the business moves toward more sophisticated accounting technologies.

2.7 Conceptual Foundation of the Assistance Program

The literature indicates that inventory management, warehouse management, and trade payable management are interconnected components of the purchasing and expenditure cycle. Weaknesses in one component can influence the reliability of information in another. For example, an undocumented credit purchase can simultaneously create discrepancies in inventory records and inaccurate trade payable information. Based on this perspective, the assistance program at Aleeta Kopi integrates the following sequence:

Internal Control → Inventory Management → Warehouse Organization → Trade Payable Recording → Reconciliation → Reliable Operational Information

The approach is consistent with Rodríguez et al. (2024), who identified the relationship between internal control and inventory management in SMEs, and Panigrahi et al. (2024), who emphasized the importance of inventory management for SME performance.

Operationally, these principles are translated into six practical mechanisms: (1) simple segregation of duties, (2) transaction documentation, (3) purchasing authorization, (4) FIFO-based stock cards, (5) supplier-specific trade payable cards with due-date monitoring, and (6) periodic reconciliation between records and physical conditions. This approach enables formal accounting and auditing concepts to be translated into practical procedures that are relatively inexpensive and understandable for MSME owners and employees.

2.8 Research and Practical Gap

Previous studies have extensively examined the relationship between internal control, inventory management, accounting information systems, and SME performance. However, a practical gap remains concerning the translation of formal internal control and auditing principles into simple operational instruments that can be directly implemented by micro-scale businesses, particularly coffee shop MSMEs. Many previous studies focus on measuring relationships among variables or evaluating internal control systems within organizations with relatively formal structures. In contrast, micro-enterprises often require practical solutions that address immediate operational problems using limited human, financial, and technological resources. The present community service activity addresses this gap by combining diagnostic observation, socialization, hands-on training, independent practice, monitoring, and evaluation. Rather than merely identifying weaknesses in internal control, the program provides practical tools that can immediately be adopted by the partner. The contribution of this activity is therefore twofold. First, it demonstrates how internal control and auditing principles can be contextualized into a simple and affordable control model for coffee shop MSMEs. Second, it provides applied learning for accounting students by connecting auditing concepts with actual business practices. Through the implementation of FIFO stock cards, warehouse labeling, supplier-specific trade payable cards, transaction documentation, segregation of duties, authorization, and reconciliation, the program seeks to strengthen inventory accuracy, reduce material waste, improve monitoring of supplier obligations, and support more reliable operational information.

3. Research Methods

3.1 Research Design

This community service activity employed a descriptive qualitative approach to identify operational problems and provide practical assistance in inventory management, warehouse organization, and trade payable recording at Aleeta Kopi, a coffee shop MSME in Makassar, Indonesia. The approach was selected because the primary objective was not to statistically test causal relationships, but to understand the partner's existing accounting and operational practices, identify weaknesses in internal control, and implement practical improvements that could be directly adopted by the business. The activity was designed as a participatory assistance program, in which the implementation team worked directly with the business owner and employees throughout the identification, training, implementation, monitoring, and evaluation stages. This approach allowed the team to adapt the accounting tools and internal control procedures to the operational characteristics and resource limitations of the MSME. The program was conducted from 20 June to 4 July 2026, involving one lecturer as supervisor and six accounting students from the Accounting Study Program,

Faculty of Economics and Business, Universitas Muhammadiyah Makassar. The activity also served as contextual learning for students enrolled in the Auditing Practicum course by connecting auditing concepts with real-world MSME operational practices.

3.2 Partner and Activity Setting

The partner of this community service program was Aleeta Kopi, a coffee shop MSME located on Jalan Nipa-Nipa, Antang, Manggala District, Makassar City, South Sulawesi, Indonesia. The selection of the partner was based on the initial identification of operational problems related to inventory recording, warehouse organization, and trade payable administration. The partner's operational activities involve the procurement, storage, and utilization of various raw materials, including coffee beans, liquid milk, palm sugar, syrup, cups, lids, straws, and other packaging materials. Some purchases are conducted on credit, resulting in trade payables to suppliers. These characteristics make inventory and trade payable management important areas for the implementation of simple internal control mechanisms.

3.3 Data Collection Techniques

Data were collected using three complementary techniques: direct observation, semi-structured interviews, and document examination. First, direct observation was conducted to examine the actual conditions of inventory storage, material movement, transaction recording, and warehouse organization. The observation focused on how goods were received, stored, issued, and recorded, as well as how responsibilities were distributed among the owner and employees. Second, semi-structured interviews were conducted with the owner and employees to obtain information regarding purchasing procedures, inventory monitoring, supplier transactions, payment practices, and existing documentation. The interviews also explored the difficulties encountered by the partner in maintaining consistent accounting records. Third, available transaction documents and operational records were examined to identify the extent to which inventory purchases, inventory movements, and credit purchases were documented. The information obtained from these three sources was compared to establish an understanding of the partner's initial condition.

3.4 Stages of Program Implementation

The assistance program consisted of six sequential stages, designed to ensure that the intervention moved from problem identification to independent implementation by the partner.

Stage 1: Initial Coordination and Diagnosis

The first stage was conducted on 20–21 June 2026. The team coordinated with the business owner, conducted preliminary observations, interviewed the owner and employees, and identified weaknesses in inventory and trade payable management. Particular attention was given to the absence of systematic stock cards, inconsistent transaction recording, unstructured warehouse storage, and limited monitoring of supplier payment due dates.

The findings from this stage were used to design simple recording instruments appropriate to the operational capacity of Aleeta Kopi.

Stage 2: Internal Control Socialization and Inventory Training

The second stage was conducted on 22–24 June 2026. The team introduced basic internal control concepts, including segregation of duties, authorization, transaction documentation, physical safeguarding, and monitoring.

The training then focused on inventory recording using a FIFO-based stock card. Participants were trained to record inventory receipts, inventory issues, and remaining balances for individual raw

materials. The team also assisted the partner in reorganizing the storage area by introducing labels and arranging materials according to their type, frequency of use, and date of receipt.

Stage 3: Trade Payable Recording and Initial Reconciliation

The third stage took place on 26–27 June 2026. Training focused on the recording and monitoring of credit purchases and trade payables. A supplier-specific trade payable card was introduced containing the transaction date, supplier name, description, amount payable, payment due date, and payment status.

The team also introduced an initial reconciliation procedure by comparing accounting records with available invoices, delivery documents, supplier claims, and physical inventory information. This procedure was intended to improve the completeness and accuracy of trade payable records.

Stage 4: Independent Practice

The fourth stage was conducted on 28–30 June 2026. At this stage, the owner and employees were encouraged to independently operate the recording system introduced during the previous sessions. The team shifted its role from instructor to facilitator and observer.

The participants practiced recording inventory receipts and issues, updating stock balances, documenting credit purchases, and monitoring supplier obligations. Any technical difficulties encountered during implementation were documented for subsequent evaluation.

Stage 5: Monitoring and Evaluation

The fifth stage was conducted on 1–2 July 2026. Monitoring focused on the consistency and accuracy of the partner's use of the stock cards and trade payable cards. The team reviewed the records produced during the independent practice and compared them with available physical and documentary evidence. Evaluation was conducted through discussions with the owner and employees concerning the usefulness, simplicity, and practicality of the recording tools. Adjustments were made where necessary to ensure that the instruments were compatible with the partner's daily operational activities.

Stage 6: Documentation, Handover, and Follow-Up Recommendations

The final stage was conducted on 3–4 July 2026. The team compiled the activity documentation, formally handed over the stock card and trade payable recording templates to Aleeta Kopi, and provided recommendations for continued implementation.

The recommendations emphasized consistent transaction recording, periodic physical inventory checks, monitoring of supplier due dates, retention of transaction evidence, and gradual strengthening of segregation of duties.

3.5 Internal Control Instruments

The intervention was operationalized through several simple internal control instruments. First, a FIFO stock card was used to record inventory receipts, inventory issues, and remaining balances. The instrument was applied separately to major raw materials, allowing the partner to monitor inventory movements and identify potential discrepancies. Second, a warehouse labeling and organization system was introduced to improve the identification and physical control of raw materials. Materials were organized according to type, frequency of use, and receipt date to support FIFO implementation. Third, a supplier-specific trade payable card was introduced to record credit purchases and outstanding obligations. The card included the transaction date, supplier, transaction description, amount, due date, and payment status. Fourth, transaction documentation and authorization procedures were strengthened. Purchases and credit transactions were expected to be supported by invoices, receipts, delivery notes, or other available evidence. Where operationally feasible, purchasing and recording responsibilities were separated between employees. Finally, periodic reconciliation was introduced by comparing accounting records with physical inventory and supporting transaction documents.

3.6 Evaluation of Program Effectiveness

Program effectiveness was evaluated through a before-and-after comparison of the partner's operational practices. The assessment focused on six dimensions: (1) inventory recording, (2) warehouse organization, (3) trade payable recording, (4) segregation of duties, (5) transaction documentation, and (6) reconciliation. The evaluation was qualitative rather than statistical. Changes were identified by comparing the condition observed during the initial diagnosis with the condition observed during independent practice and final monitoring. Evidence of improvement included the partner's ability to independently complete stock cards and trade payable cards, organize inventory systematically, identify outstanding supplier obligations, and conduct basic reconciliation. In addition, qualitative feedback from the owner and employees was considered to assess the practicality and sustainability of the tools introduced. Particular attention was given to implementation barriers, including delays in recording transactions during periods of high customer activity.

3.7 Data Analysis

The collected information was analyzed using descriptive qualitative analysis. The analysis involved three main steps: data reduction, data organization, and interpretation. Data reduction involved selecting information directly related to inventory management, warehouse control, trade payable recording, and internal control practices. The information was then organized according to the six evaluation dimensions. Finally, the team interpreted changes between the pre-assistance and post-assistance conditions to determine whether the intervention improved the partner's ability to manage inventory and trade payables. The analysis also incorporated the results of practical implementation, including stock card records, trade payable records, inventory summaries, and supplier balance summaries. These outputs provided supporting evidence for evaluating whether the newly introduced procedures could be implemented in the partner's daily operations.

3.8 Ethical and Participatory Considerations

The activity was conducted through direct coordination with the business owner and employees. Participation in observation, interviews, training, and independent practice was carried out with the knowledge and agreement of the partner. Information obtained during the activity was used solely for educational, community service, and academic reporting purposes. The intervention was also designed to avoid imposing procedures that exceeded the partner's operational capacity. Accordingly, the recording instruments were deliberately developed in a simple format so that they could be maintained after the completion of the community service program. The sustainability of the intervention was therefore considered an important component of the implementation process rather than merely an outcome of the training. Overall, the methodology integrates diagnosis, participatory training, practical implementation, independent practice, monitoring, and evaluation. This design enables formal internal control and auditing principles to be translated into practical procedures that are appropriate for the operational characteristics of MSMEs.

4. Results and Discussion

4.1 Initial Condition of Inventory, Warehousing, and Trade Payable Management

The initial assessment conducted through observation and interviews showed that the management of inventory, warehousing, and trade payables at Aleeta Kopi had not yet been supported by a structured internal control system. Inventory movements were recorded manually and inconsistently, while stock cards were not systematically maintained for each type of raw material. As a result, the owner had limited information regarding the exact quantity of materials available at a particular time. The same condition was identified in the warehouse. Raw materials were stored

according to immediate operational needs rather than through a systematic storage arrangement. The absence of standardized labeling and a clear arrangement based on receiving dates created a risk that older materials would not be used first. This condition is particularly relevant for a coffee shop business because several raw materials, such as milk, syrups, and other consumable materials, may experience quality deterioration when stored for excessive periods. Trade payable management also presented an important control issue. Credit purchases from suppliers were not consistently recorded according to supplier, transaction date, amount, and payment due date. Consequently, the owner had to rely partly on invoices, personal memory, or individual transaction documents when determining outstanding obligations. This condition could increase the risk of delayed payments, incomplete records, and discrepancies between the business's records and supplier claims. These findings indicate that the primary problem was not simply the absence of accounting records but the absence of an integrated control mechanism connecting physical inventory, transaction documentation, and liability information. This finding is consistent with the literature indicating that SMEs frequently experience inventory management difficulties because of limited resources, inadequate systems, and managerial constraints (Panigrahi et al., 2024). Similarly, Rodríguez et al. (2024) demonstrated that internal control is closely associated with inventory management in commercial SMEs.

4.2 Implementation of Internal Control Assistance

The assistance program introduced basic internal control principles that were adapted to the operational capacity of Aleeta Kopi. The main principles included segregation of duties, transaction documentation, authorization, physical safeguarding, and reconciliation. Rather than introducing complex accounting procedures, the team translated these principles into daily operational activities. Purchasing, receiving, and recording activities were encouraged to be separated where the availability of personnel permitted. Each credit purchase was also expected to be supported by an invoice, receipt, or delivery document. In addition, the owner was encouraged to review and authorize relevant transactions before they were finalized. The implementation demonstrated that internal control concepts traditionally associated with larger organizations can be adapted to micro-businesses through relatively simple procedures. This is important because requiring sophisticated control systems from MSMEs may create additional administrative burdens and reduce the likelihood of sustained implementation. The results support the argument of Alshaiti (2023) that internal control should be viewed as a mechanism supporting organizational effectiveness rather than merely as a compliance instrument. At Aleeta Kopi, the introduction of basic control activities improved the availability of operational information while simultaneously increasing awareness among the owner and employees regarding their respective responsibilities. Nevertheless, the implementation also demonstrated that segregation of duties remains constrained by the limited number of employees. Therefore, complete separation of functions, as commonly practiced in larger organizations, was not always possible. A more realistic approach for MSMEs is compensating control through owner supervision, authorization, and periodic reconciliation.

4.3 Improvement in Inventory Recording through FIFO Stock Cards

One of the principal outputs of the program was the implementation of a FIFO-based stock card. The instrument was designed to record inventory receipts, inventory issues, and remaining balances for individual raw materials. The implementation of the stock card provided Aleeta Kopi with a more systematic mechanism for monitoring inventory movements. For example, the stock balance of arabica coffee beans could be monitored from an opening balance of 15 kg, followed by a purchase of 10 kg, subsequent production usage, and a final balance of 17 kg at the end of June 2026. This recording structure allowed the partner to trace inventory movements rather than relying solely on physical

estimation. The application of FIFO also supported more systematic physical inventory management. Materials received earlier were positioned to be used before newer materials, thereby reducing the potential for prolonged storage. In a coffee shop environment, this is particularly useful for materials whose quality can decline over time. The finding is consistent with Panigrahi et al. (2024), who emphasized the importance of inventory management practices for SME operational performance. It also supports the findings of Nugraheni et al. (2024), which highlight the importance of effective procedures for receiving and issuing inventory in strengthening internal control. Importantly, the program did not claim that the introduction of FIFO alone eliminated inventory losses or waste. Rather, the evidence indicates that FIFO created a more traceable and controllable inventory flow. This distinction is important because sustained improvements in inventory accuracy depend on consistent recording, physical verification, and employee discipline.

4.4 Improvement in Warehouse Organization

The inventory recording intervention was complemented by improvements in warehouse organization. Before the intervention, raw materials were not consistently labeled and were placed according to operational convenience. During the assistance process, materials were labeled and arranged according to type, frequency of use, and receiving date. The new arrangement supported the FIFO system because employees could identify which materials should be used first. It also reduced the possibility of materials being overlooked because of inappropriate placement. Warehouse organization consequently functioned as a physical component of internal control. The relationship between physical control and inventory information is important because reliable inventory records cannot be achieved solely through bookkeeping if physical materials remain poorly organized. The result is consistent with Rodríguez et al. (2024), who identified a relationship between internal control and inventory management in SMEs. It also corresponds to Panigrahi et al. (2024), who noted that limited storage capacity and resource constraints are among the challenges affecting inventory management in SMEs. For Aleeta Kopi, the intervention demonstrates that warehouse improvements do not necessarily require expensive infrastructure. Simple labeling, grouping, and systematic placement can provide a practical first step toward improving physical inventory control.

4.5 Improvement in Trade Payable Recording

The second major intervention involved the introduction of supplier-specific trade payable cards. Each card recorded the transaction date, supplier, description, amount payable, due date, and payment status. The implementation generated a clearer picture of Aleeta Kopi's outstanding obligations. Based on the June 2026 records, total credit purchases amounted to Rp8,000,000, while payments amounted to Rp2,500,000, resulting in an outstanding trade payable balance of Rp5,500,000. The supplier-specific format enabled the owner to identify the amount owed to each supplier. The outstanding balances included Rp2,500,000 to CV Kopi Nusantara, Rp1,200,000 to Toko Susu Segar Makassar, Rp850,000 to UD Sumber Kemasan, and Rp950,000 to Toko Gula & Sirup Berkah. The records also included the respective payment due dates. This change is important because the availability of supplier-level information supports short-term cash flow planning. Instead of merely knowing the total amount of liabilities, the owner can identify who must be paid, how much must be paid, and when payment is due. The finding is consistent with Benanda and Mutiha (2024) and Aditya and Meita (2024), who emphasize the importance of supporting documentation, verification, and systematic procedures in the management and audit of trade payables. Although the instrument implemented at Aleeta Kopi is considerably simpler than formal audit procedures, it adopts the same fundamental principle: liability information should be traceable to supporting evidence.

4.6 Reconciliation and Detection of Recording Differences

An important component of the intervention was the introduction of basic reconciliation between accounting records, physical inventory, and supporting documents. During the initial reconciliation process, several small discrepancies were identified between recorded information and the physical or documentary evidence. Rather than treating these discrepancies solely as errors, the team used them as learning opportunities for the owner and employees. The reconciliation process demonstrated the importance of recording transactions immediately and retaining supporting documents. This finding reinforces the role of reconciliation as a compensating control in MSMEs where complete segregation of duties cannot always be implemented. When the same individual performs multiple operational functions, periodic independent review or owner-level verification can provide an additional layer of control. The result is conceptually consistent with previous studies emphasizing the importance of reconciliation, cut-off procedures, and documentary evidence in obtaining reliable information about trade payables and inventory (Benanda & Mutiha, 2024; Putri & Habibie, 2026).

4.7 Comparison of Conditions Before and After Assistance

The most visible outcome of the program was the transformation of several operational practices at Aleeta Kopi.

Control Aspect	Before Assistance	After Assistance
Inventory recording	Manual and inconsistent	FIFO-based stock cards
Warehouse organization	Unlabeled and less systematic	Labeled and systematically arranged
Trade payable recording	Not systematically classified by supplier	Supplier-specific payable cards
Due-date monitoring	Not systematically monitored	Due dates explicitly recorded
Segregation of duties	Purchasing and recording not clearly separated	Simple separation introduced where feasible
Transaction documentation	Some transactions lacked supporting evidence	Transactions encouraged to use invoices/receipts
Reconciliation	Not routinely conducted	Periodic reconciliation introduced

The comparison indicates improvements across all six dimensions evaluated in the program. However, the results should be interpreted as operational improvements rather than evidence of statistically measured performance effects. The activity employed a qualitative descriptive approach and did not use a control group or quantitative pre-test/post-test design. Therefore, the strongest conclusion supported by the evidence is that the assistance improved the structure, traceability, and usability of operational records. Whether these improvements produce long-term reductions in inventory waste, payment delays, or financial losses requires continued monitoring beyond the implementation period.

4.8 Sustainability and Implementation Challenges

Although the intervention produced positive changes, the implementation process identified an important challenge: recording discipline during periods of high business activity. During independent practice, the owner and employees occasionally experienced delays in recording transactions when customer activity increased. This finding demonstrates that the effectiveness of an internal control system depends not only on the availability of appropriate instruments but also on human behavior and organizational commitment. A recording system that is theoretically appropriate may fail if it is

perceived as time-consuming or difficult to integrate into daily routines. Therefore, the sustainability strategy should emphasize simplicity and consistency. The stock card and trade payable card should be completed as close as possible to the transaction time, while reconciliation can be conducted at the end of each operating day or at predetermined intervals. The owner can also assign clear responsibility for recording and conduct periodic reviews. The findings suggest that the most appropriate internal control model for Aleeta Kopi is not a highly formalized system but a simple, proportional, and sustainable control structure. This approach is consistent with the broader SME literature, which recognizes resource limitations as a major consideration in designing operational and inventory management systems (Panigrahi et al., 2024).

4.9 Discussion: Contribution of the Assistance Program

The contribution of this community service activity lies in translating accounting and auditing concepts into practical instruments that can be directly used by a micro-scale coffee shop. The intervention integrated three areas that are often treated separately: inventory control, physical warehouse management, and trade payable recording. The integrated approach is important because these processes are operationally interconnected. A credit purchase simultaneously affects inventory and trade payables. If the purchase is not properly documented, both inventory records and liability information may become inaccurate. Likewise, if inventory withdrawals are not recorded, the physical stock balance will diverge from the accounting records. The intervention therefore established a simple control cycle:

Purchase → Documentation → Inventory Receipt → Stock Recording → Storage → Inventory Usage → Reconciliation → Trade Payable Monitoring → Payment

This cycle provides a practical internal control framework for Aleeta Kopi and potentially for other coffee shop MSMEs with similar characteristics. The activity also contributes to accounting education by providing students with direct experience in applying auditing principles outside formal corporate environments. Through observation, training, implementation, and evaluation, students were able to understand that internal control is not exclusively applicable to large corporations but can also be adapted to micro-businesses according to their scale and resources. Overall, the results demonstrate that relatively simple interventions—FIFO stock cards, warehouse labeling, supplier-specific trade payable cards, transaction documentation, basic segregation of duties, and periodic reconciliation—can strengthen the structure and reliability of MSME operational records. The sustainability of these improvements, however, remains dependent on continued managerial commitment, employee discipline, and periodic monitoring.

5. Conclusion

5.1 Conclusion

The community service program at Aleeta Kopi demonstrated that the implementation of simple internal control mechanisms can improve the management of inventory, warehousing, and trade payables in MSMEs. Prior to the intervention, inventory recording was inconsistent, warehouse organization was not systematic, and trade payable information was not adequately classified according to suppliers and payment due dates. These conditions created operational risks, particularly the possibility of inventory discrepancies, material waste, incomplete documentation, and delayed supplier payments. Through participatory assistance, the program successfully translated basic internal control and auditing principles into practical procedures that were appropriate to the operational capacity of the partner. The implementation of FIFO-based stock cards, warehouse labeling, supplier-specific trade

payable cards, transaction documentation, simple segregation of duties, and periodic reconciliation provided the partner with a more structured basis for managing daily operations.

5.2 Improvement in Inventory and Warehouse Management

The implementation of FIFO-based stock cards and systematic warehouse organization improved the traceability of inventory movements at Aleeta Kopi. The partner was able to record incoming and outgoing materials and determine the remaining stock more systematically. The use of FIFO also provided a practical mechanism for prioritizing older inventory and reducing the risk of prolonged storage and material deterioration. The intervention demonstrates that inventory control in MSMEs does not necessarily require sophisticated information technology. Simple recording instruments combined with appropriate physical organization can provide meaningful improvements when consistently applied. However, the long-term effectiveness of the system remains dependent on the discipline of employees and the commitment of management to record every inventory movement accurately and promptly.

5.3 Improvement in Trade Payable Management

The introduction of supplier-specific trade payable cards provided Aleeta Kopi with more transparent information regarding its outstanding obligations. The recording system enabled the partner to identify the supplier, transaction amount, outstanding balance, due date, and payment status for each credit purchase. This improvement is particularly important for short-term cash flow management because the owner can now identify payment priorities based on the maturity of each obligation. The system also strengthens the traceability of credit transactions by connecting payable records with supporting documents such as invoices and delivery notes. Nevertheless, the system should be continuously updated whenever credit purchases or payments occur. Periodic reconciliation with supplier documentation is also necessary to minimize the possibility of incomplete, duplicated, or inaccurate liability records.

5.4 Practical and Educational Implications

The program has practical implications for MSMEs, particularly coffee shop businesses with similar operational characteristics. The findings suggest that internal control can be implemented progressively through relatively simple and affordable mechanisms rather than through complex accounting systems. MSME owners can begin by establishing clear transaction documentation, assigning basic responsibilities, maintaining stock cards, monitoring supplier obligations, and conducting periodic reconciliation. The program also provides educational implications for accounting students. Direct involvement in the activity enabled students to apply auditing and internal control concepts in an actual business environment. The experience strengthened their ability to identify control weaknesses, design appropriate accounting instruments, communicate accounting concepts to non-accounting practitioners, and evaluate the implementation of control procedures. Thus, community service activities of this type can function simultaneously as MSME capacity-building programs and experiential learning platforms for accounting students.

5.5 Limitations and Recommendations for Future Assistance

This activity has several limitations that should be considered when interpreting the results. First, the program involved only one MSME and was implemented over a relatively short period. Therefore, the findings cannot be generalized to all coffee shop MSMEs or other business sectors. Second, the evaluation used a descriptive qualitative approach and did not employ a quantitative control group or long-term performance indicators. Consequently, the activity demonstrates improvements in

recording practices and internal control implementation but does not establish a statistically measurable causal effect on profitability, inventory turnover, or cash flow. Future assistance programs should therefore incorporate longer monitoring periods and measurable indicators, such as inventory discrepancy rates, material waste, inventory turnover, payment timeliness, and the accuracy of payable balances. Further interventions may also gradually introduce digital inventory and accounting applications once the partner has established sufficient recording discipline. Periodic follow-up assistance is recommended to ensure that the internal control procedures remain consistently implemented. Overall, the experience of Aleeta Kopi demonstrates that simple, proportional, and sustainable internal control mechanisms can provide a practical foundation for strengthening MSME accounting and operational management. The combination of inventory control, warehouse organization, trade payable monitoring, documentation, and reconciliation offers a replicable model for similar MSMEs seeking to improve the reliability of their operational information and financial administration.

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