



INVENTORY MANAGEMENT PRACTICES IN DAPUR HANIF MSME (CAKE BUSINESS): A SINGLE CASE STUDY

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<p>Info Article</p> <p>Received: 02 November 2025</p> <p>Revised: 04 Desember 2025</p> <p>Accepted: 02 Januari 2026</p> <p>Publication: 31 Januari 2026</p>	<p>Abstract: <i>This study examines inventory management practices in Dapur Hanif, a micro scale cake business. (1) Research objective: to describe how inventory is sourced, controlled, and replenished, and to identify the operational implications of these practices. (2) Research method: a qualitative single case study using interviews, observation, and documentation, analyzed through thematic analysis. (3) Research results: Dapur Hanif relies mainly on local markets and nearby baking supply stores, supported by weekly purchasing routines and bulk buying to prevent stockouts. Online channels are used selectively for supporting items such as packaging and certain specialty needs, but not for urgent procurement due to lead-time risk. The owner stockpiles specific materials (whip cream and chocolate-based inputs) to mitigate price volatility and occasional scarcity, creating a trade-off between availability assurance and potential overstock. Stock control remains semi formal, relying on visual checks and experience, while fast turnover and immediate delivery help minimize finished goods waste.</i></p>
<p>Keywords: Inventory Management; Msmes; Cake Business; Thematic Analysis; Single-Case Study</p> <p>Kata Kunci: Manajemen Persediaan; Ukm; Usaha Kue; Analisis Tematik; Studi Kasus Tunggal</p>	<p>Abstrak: Abstrak: Penelitian ini mengkaji praktik manajemen persediaan pada UMKM Dapur Hanif (usaha kue). (1) Tujuan penelitian: mendeskripsikan cara pengadaan, pengendalian, dan pengisian ulang persediaan serta mengidentifikasi implikasi operasional dari praktik tersebut. (2) Metode penelitian: studi kasus tunggal dengan pendekatan kualitatif melalui wawancara, observasi, dan dokumentasi, kemudian dianalisis menggunakan analisis tematik. (3) Hasil penelitian: Dapur Hanif mengandalkan pasar lokal dan toko bahan kue sebagai sumber utama bahan baku, didukung pola belanja mingguan dan pembelian per karton untuk mencegah kekurangan bahan. Kanal online dimanfaatkan secara selektif untuk kebutuhan pendukung seperti kemasan dan beberapa bahan tertentu, namun dihindari untuk kebutuhan mendesak karena risiko keterlambatan. Pemilik melakukan stockpiling pada whip cream dan bahan berbasis cokelat untuk mengantisipasi fluktuasi harga dan kelangkaan, sehingga muncul trade off antara jaminan ketersediaan dan potensi overstock. Kontrol stok masih semi formal berbasis pengecekan visual, sementara perputaran cepat dan pengantaran segera menekan waste produk jadi.</p>
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INTRODUCTION

Micro, small, and medium enterprises (MSMEs) are widely recognized as a backbone of Indonesia's economy, contributing substantially to GDP and absorbing the majority of the national workforce (Ferdian, 2023). However, this macro level contribution does not automatically translate into strong operational capability at the firm level many MSMEs still face day to day managerial constraints, including limited working capital, limited storage capacity, and the need to maintain service levels with minimal buffers (Panigrahi *et al.*, 2024). In practice, these constraints make inventory decisions what to buy, how much to buy, and when to replenish—high-stakes decisions for MSMEs, because inventory ties up cash while shortages can immediately reduce sales and customer trust (Panigrahi *et al.*, 2024).

Inventory challenges become even more critical for food-based MSMEs such as small bakeries and home-based cake businesses. Their inputs (e.g., eggs, milk, butter, flour) and outputs (cakes and pastries) are time sensitive, creating a continuous tension between freshness, availability, and cost. Research on perishable inventory emphasizes that such systems are complex due to multiple uncertainties (demand variability, quality changes with age, lead time variability, seasonality, and substitution when stockouts occur), which can quickly lead to either spoilage (overstock) or lost sales (stockouts) if ordering rules are weak or informal (Gioia *et al.*, 2023). Similar findings in grocery or food contexts show that uncertainty and substitution across channels or products influence order quantities and performance, reinforcing that perishable inventory decisions are not merely “buy more when it runs out” but require structured decision logic (Silbermayr & Waitz, 2024).

From a theoretical perspective, basic inventory management models offer structured ways to reduce avoidable costs and stabilize operations. The Economic Order Quantity (EOQ) model, for example, is designed to balance ordering costs and holding costs to minimize total inventory costs under simplifying assumptions (Shah&Kirche,2025). Meanwhile, ABC analysis helps prioritize managerial attention by classifying items (A–B–C) so that high-impact materials receive tighter control than low-impact materials an approach especially relevant when a small business handles many SKUs with limited time and monitoring capacity (Ravinder&Misra,2014). For perishable businesses, inventory decisions also connect to broader operational outcomes such as food waste; research highlights that inventory policies (including donation-related strategies near expiration) can reduce waste while affecting

profitability, demonstrating that inventory management choices have financial and social consequences (Mallidis *et al.*, 2022). In Indonesia, the operational reality of micro and small enterprises is often characterized by labor-intensive activities and localized economic roles, where managerial practices may remain informal and heavily experience-based (Badan Pusat Statistik [BPS], 2024). This context makes it important to examine how inventory management is actually practiced in specific MSMEs, particularly food businesses where perishability increases risk. Therefore, this article presents a single case study of Dapur Hanif (a cake MSME) to describe and analyze its inventory management practices, identify key problems and their operational implications, and map potential improvement directions within the realistic constraints of a micro/small business setting (Panigrahi *et al.*, 2024; Shah & Kirche, 2025).

METHOD

This study employed a descriptive qualitative approach using a single case study design to obtain an in-depth understanding of inventory management practices in a small business context. The case study approach was selected because it allows a detailed exploration of managerial processes and practices within a real life setting. The object of this research was an MSME, Dapur Hanif, located in Manokwari Regency, with a focus on inventory management practices covering raw materials, packaging, and finished products. The study involved one key informant, namely the owner or person in charge who directly manages purchasing, production, and inventory control. The use of a single key informant is considered appropriate in a single case study when the informant has comprehensive knowledge of the research phenomenon (Yin, 2018).

Data were collected through semi structured interviews, direct observation, and documentation to obtain comprehensive and credible information. Interviews were conducted to explore inventory flows and challenges encountered in inventory management, while observations were used to examine storage conditions and inventory movement. Documentation such as purchase records and inventory-related notes was used to support and verify the findings. Data analysis was conducted using manual thematic analysis involving transcription, coding, categorization, and theme development. No qualitative data analysis software was used, as the analysis relied entirely on manual techniques consistent with qualitative case study research (Yin, 2018).

RESULTS AND DISCUSSION

Based on the research question and sub questions concerning the inventory management system at Dapur Hanif MSME (cake business), the findings were developed from the analysis of qualitative data (interviews, observation, and documentation). The main theme that emerged is “adaptive inventory management based on orders and owner experience.” This theme is further classified into several sub-themes as follows.

Local Market

Field findings indicate that Dapur Hanif sources its main raw materials such as flour, sugar, eggs, milk, margarine/butter, chocolate, and other baking ingredients primarily from local markets and nearby baking-supply stores. The choice of local suppliers is influenced by daily stock availability, fluctuating prices, and ease of access when urgent needs arise. This type of flexible procurement is common among MSMEs because it helps maintain production continuity when demand changes and when storage space or procurement capacity is limited (Panigrahi *et al.*, 2024).

“I usually buy ingredients weekly, depending on what I need.” [Owner]

“Most of the ingredients I buy from a baking-supply store nearby, because if there is a sudden order, I can buy them immediately.” [Owner]

“If the market is out of stock, I usually look for an alternative store. The important thing is production does not stop.” [Owner]

Nevertheless, Dapur Hanif still experiences occasional scarcity of certain items (whip cream, cocoa powder, and chocolate bars) and price fluctuations that affect purchasing plans. In the literature, supply/price volatility is a common source of uncertainty that influences inventory policy, especially for small businesses with limited bargaining power and financial flexibility (Panigrahi *et al.*, 2024).

“When the price of whip cream, cocoa powder, and chocolate bars increases or the stock is hard to find, I have to adjust. Sometimes I buy small quantities, sometimes I switch where I buy.” [Owner]

Online Market

In addition to local markets, Dapur Hanif also uses online channels (e.g., WhatsApp suppliers, marketplaces, or social media), mainly for certain ingredients and supporting items such as packaging, toppings, or small tools. Online purchasing is

chosen due to promotions, wholesale prices, or time efficiency. The use of digital channels in MSME inventory is often linked to easier product search, broader variety, and better price opportunities, although it remains constrained by uncertainty in delivery and product quality (Panigrahi *et al.*, 2024).

“I usually order packaging online because there are more options and sometimes it is cheaper.” [Owner]

“Some special items are easier to find online than going around different stores.” [Owner]

However, online purchasing has consequences such as lead time, quality uncertainty for sensitive items, and delivery delays. Therefore, it is usually avoided for very urgent needs.

“If I need an ingredient the same day, I don’t dare to order online because I’m afraid it will arrive late.” [Owner]

Inventory Buying Decision

Inventory purchasing decisions at Dapur Hanif are dominated by a large-stock strategy, including buying in bulk to minimize stockout risk and keep production running smoothly. Purchases are typically made weekly and in relatively large quantities. Conceptually, order quantity decisions relate to balancing ordering costs and holding costs (for example, in the EOQ framework as a basic model) (Shah & Kirche, 2025).

“Ingredients never run out because I always keep a lot of stock; I buy by the carton.” [Owner]

Certain items receive special attention because their prices often increase namely whip cream, cocoa powder, and chocolate bars. For these items, the owner tends to stockpile as a strategy to anticipate price increases while preventing shortages. This “tighter control for certain items” is consistent with the logic of inventory prioritization (e.g., ABC classification, where high-impact items are monitored and controlled more strictly than others) (Ravinder & Misra, 2014).

“Whip cream, cocoa powder, and chocolate bars often increase in price, so I stock up so I don’t run out.” [Owner]

These findings indicate that inventory decisions are influenced not only by production needs, but also by raw-material price dynamics (price volatility) for specific items.

Goods And Raw Materials Safety

Because inventory is managed through bulk purchasing, safety and storage risk become important considerations. However, the participant emphasized that ingredient availability remains secure and no major issues related to shortages or routine damage were reported.

“Ingredients never run out because I always keep a lot of stock.” [Owner]

Nevertheless, storing large quantities logically increases the need for storage management (organization, shelf-life control, and protection against quality deterioration), particularly for ingredients sensitive to temperature and humidity. In research on vulnerable inventory, inventory decisions are also associated with risks of waste or quality loss when controls are inadequate (Mallidis *et al.*, 2022).

Stock recording and inventory control

Findings show that stock recording at Dapur Hanif tends to be semi-formal. Key ingredients are monitored more closely, while some supporting items and packaging are often monitored visually (by checking shelves). Inventory control is mainly performed before production or before weekly shopping, rather than through scheduled stock audits. The literature emphasizes that MSMEs often rely on simplified controls due to limited time, labor, and systems, although such practices may increase the risk of inventory data inaccuracy (Panigrahi *et al.*, 2024).

“I usually check stock when I’m going to produce or before shopping. If it looks like it’s running low, then I buy.” [Owner]

“Not everything is recorded in detail, because if there are too many items it becomes difficult.” [Owner]

As a result, there is potential mismatch between physical stock and estimates, especially when production becomes busy or product variations increase.

Operational impacts: stockout, overstock, and waste

In daily operations, the participant emphasized that raw materials do not run out due to the bulk-stock strategy. In addition, cakes are produced for immediate demand, so finished goods do not accumulate. In general, research confirms that inventory management practices are closely related to MSME operational performance, including stability of demand fulfillment and cost efficiency (Panigrahi *et al.*, 2024).

“Ingredients never run out because I always keep a lot of stock.” [Owner]

“The cakes are made, sold out immediately, and delivered right away.” [Owner]

These findings highlight two main operational impacts:

1. Low stockout risk: the risk of ingredient shortages is reduced through buying by the carton and weekly purchasing.
2. No finished-goods build-up: fast production and distribution (“sold out immediately” and “delivered right away”) reduces the risk of waste in finished goods.

However, the large stock strategy for certain items (whip cream and chocolate related products) also indicates potential overstock as a trade-off, especially when inventory is increased to anticipate price rises. In this case, the owner prioritizes production stability and protection from price increases as the main operational considerations.

Discussion

This single-case study shows that Dapur Hanif’s inventory management is largely informal but functional, relying on the owner’s experience, weekly purchasing routines, and flexible supplier choices. Such a pattern is consistent with the broader MSME context, where inventory decisions are often shaped by limited resources, time constraints, and the need to keep daily operations running without disruption (Panigrahi *et al.*, 2024).

A key finding is the strong preference for local sourcing, supported by quick access and the ability to respond to sudden orders. This supports the idea that MSMEs often prioritize operational continuity over formal optimization, especially when demand is uncertain and supply availability can change quickly (Panigrahi *et al.*, 2024). In practice, the owner manages uncertainty not through forecasting tools but through supplier flexibility (switching stores when stock is unavailable) and maintaining larger safety buffers via bulk purchasing.

Weekly purchasing and buying by the carton function as a practical safety stock strategy. Conceptually, inventory decisions can be understood as a trade-off between ordering costs and holding costs, as highlighted in basic inventory models such as EOQ (Shah & Kirche, 2025). Although Dapur Hanif does not calculate EOQ, the logic behind bulk buying suggests that the owner reduces the frequency and effort of ordering (ordering costs) even if it increases storage volume (holding costs). For a

small business, the benefit of avoiding stockouts especially for key ingredients appears to outweigh the disadvantages of carrying larger stock.

Another important insight is the targeted stockpiling of whip cream, cocoa powder, and chocolate bars due to price increases or scarcity. This indicates that the owner does not treat all items equally; instead, certain items receive tighter control because they have higher operational and cost impacts. This mirrors the logic behind inventory prioritization approaches, where high-impact items are monitored more closely than low-impact ones (Ravinder & Misra, 2014). In this case, whip cream and chocolate-based materials can be interpreted as “high-priority items” because price volatility and availability risk directly threaten production continuity and profitability.

Online procurement plays a complementary role in the case of Dapur Hanif, mainly for packaging and selected supporting materials. While online channels provide broader choice and potential cost advantages, the owner avoids them for urgent needs due to lead time uncertainty. This aligns with the general understanding that lead time variability increases risk in replenishment decisions and encourages more cautious purchasing for time-sensitive requirements (Shah & Kirche, 2025). The decision to use online purchasing selectively suggests a pragmatic risk management approach: online channels are useful when the timing is flexible, but local channels remain critical when immediacy is required.

Regarding storage and material safety, the case indicates no major routine losses, supported by fast ingredient turnover and the made to order nature of production. However, bulk stock strategies inherently increase exposure to quality deterioration risks if materials are sensitive to environmental conditions or stored for longer than expected. Research on inventory control and waste highlights that inadequate control of sensitive inventory can lead to waste or quality loss, which can affect both cost performance and broader operational outcomes (Mallidis et al., 2022). For Dapur Hanif, the risk may be lower because turnover is fast, but the risk is not eliminated—especially for items purchased in larger quantities due to price volatility.

Stock recording remains semi-formal and largely visual, which is common among MSMEs but may create gaps between perceived stock and actual stock, especially as product variation or production intensity increases (Panigrahi et al., 2024). While this simplified control system appears sufficient for current operations, it could become a vulnerability if the business grows, adds more SKUs, or faces more unstable supply conditions. Therefore, the main managerial implication is not to replace the existing

system entirely, but to strengthen it with lightweight controls (e.g., minimal tracking for priority items) to improve visibility without adding heavy administrative burden

CONCLUSION

Theoretical implications

This single case study contributes to the MSME inventory management literature by showing how an adaptive, experience-based approach can function as a practical control logic under resource constraints. Rather than relying on formal forecasting or optimization, Dapur Hanif maintains production continuity through simple routines such as weekly purchasing and bulk buying, which supports prior arguments that MSME inventory practices are often shaped by practicality, limited managerial capacity, and day to day operational pressures (Panigrahi *et al.*, 2024). The findings also highlight how inventory policy in small businesses is influenced by uncertainty in both availability and prices. The owner's decision to stockpile whip cream and chocolate-related inputs indicates that inventory can act not only as an operational buffer but also as a hedge against price volatility and supply scarcity, reinforcing the importance of uncertainty-sensitive perspectives in MSME settings (Panigrahi *et al.*, 2024). In addition, the case offers an applied reading of classical inventory frameworks in a non-formalized context.

Bulk buying reflects the basic EOQ logic of trading off ordering effort/cost against holding burden, even though no explicit calculations are performed (Shah & Kirche, 2025), while the tighter control of a few high-impact items aligns with the prioritization principle behind ABC analysis (Ravinder & Misra, 2014). Finally, the study illustrates the linkage between inventory strategy and waste outcomes: fast turnover and immediate fulfillment reduce finished-goods waste, but large input stocks can shift risk toward quality deterioration if basic controls are weak, consistent with research that connects inventory policies to waste and quality loss (Mallidis *et al.*, 2022).

Managerial implications

For practice, the case suggests that the most relevant improvements for Dapur Hanif are lightweight controls that strengthen visibility without adding heavy administrative burden. The current system weekly purchasing, bulk buying, and flexible sourcing effectively keeps stockout risk low, so the priority is to manage the trade-off

introduced by stockpiling, especially for items with volatile prices. A practical step is to define a short “critical items” list (e.g., whip cream, cocoa powder, chocolate bars) and apply simple rules such as a minimum stock threshold and a clear reorder trigger, ensuring that stockpiling remains purposeful rather than excessive. Because the business already relies on receipts/invoices, a minimal recording routine can be integrated into existing habits by noting the quantities and prices of critical items on weekly purchase records, enabling basic trend tracking and more informed decisions during price fluctuations.

In parallel, storage discipline should be strengthened through simple rotation and organization (e.g., using older stock first) to reduce the risk of hidden quality loss when holding larger quantities, which is particularly important when inventory is used to buffer uncertainty (Mallidis et al., 2022). Finally, online channels should remain a complementary option for non-urgent items such as packaging, while urgent needs should continue to be served through local suppliers to avoid lead-time risk; a brief monthly review of receipts can support continuous improvement by identifying recurring price increases, persistent overbuying, or items that no longer need stockpiling.

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