

AMANAH IN INVENTORY MANAGEMENT FOR FOOD WASTE REDUCTION IN CULINARY MSMEs

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Abstract

This study examines the role of the Islamic ethical value of *amanah* in controlling food waste as a preventive measure against *tabdzir* through inventory management practices at Café Teras, a local culinary business in Bone Regency. From the perspective of Islamic Economic Law, food waste is not merely regarded as operational inefficiency but is also understood as a form of resource misuse that is explicitly discouraged. The research aims to analyze how the integration of *amanah* with contemporary inventory management principles functions as an operational mechanism to reduce food waste while maintaining compliance with Shariah principles. This study employs a qualitative field research approach, utilizing in-depth interviews and direct observations involving the owner, cashier, and kitchen and bar staff. The findings indicate that the internalization of *amanah* fosters discipline, carefulness, and accountability in inventory control, thereby strengthening the implementation of FIFO, daily procurement of perishable ingredients, and the contextual adaptation of EOQ and JIT models in response to limited business capital. The study concludes that inventory management grounded in the value of *amanah* not only enhances operational efficiency but also serves as an effective instrument for preventing *tabdzir* within culinary business practices based on Islamic Economic Law.

Keywords: *Amanah*; Food waste; Inventory management; *Tabdzir*

Abstrak

Penelitian ini mengkaji peran nilai etika Islam berupa *amanah* dalam pengendalian food waste sebagai upaya pencegahan praktik *tabdzir* melalui manajemen persediaan di Café Teras, sebuah usaha kuliner lokal di Kabupaten Bone. Dalam perspektif Hukum Ekonomi syariah, food waste tidak hanya dipandang sebagai inefisiensi operasional, tetapi juga sebagai bentuk pemborosan sumber daya yang dilarang. Penelitian ini bertujuan



menganalisis bagaimana integrasi nilai amanah dengan prinsip manajemen persediaan modern berfungsi sebagai mekanisme operasional untuk menekan food waste sekaligus menjaga kepatuhan terhadap prinsip syariah. Metode penelitian yang digunakan adalah kualitatif dengan pendekatan penelitian lapangan melalui wawancara mendalam dan observasi terhadap pemilik, kasir, serta staf dapur dan bar. Hasil penelitian menunjukkan bahwa internalisasi nilai amanah mendorong disiplin, ketelitian, dan akuntabilitas dalam pengelolaan persediaan, serta memperkuat penerapan FIFO, pembelian harian bahan perishable, dan adaptasi EOQ serta JIT sesuai keterbatasan modal usaha. Penelitian ini menyimpulkan bahwa manajemen persediaan berbasis nilai amanah tidak hanya meningkatkan efisiensi operasional, tetapi juga berfungsi sebagai instrumen pencegahan tabdzir dalam praktik usaha kuliner berbasis Hukum Ekonomi syariah.

Kata Kunci: Amanah; Food waste; Manajemen persediaan; Tabdzir.

A. INTRODUCTION

Inventory management is one of the determining factors of operational efficiency that often becomes a source of waste if not managed properly. This is evidenced by three main facts. First, various studies show that culinary businesses such as cafés and restaurants contribute to a high percentage of food waste due to overpurchasing of raw materials, inaccurate demand forecasting, and inconsistent storage systems.¹ Second, food ingredients in cafés generally include perishable goods such as milk, vegetables and fruits, and pastries that have a short shelf life, increasing the potential for spoilage if not properly managed. Third, operational reports from many micro, small, and medium enterprises (MSMEs) reveal that food waste directly contributes to increased production costs and decreased profit margins, thereby impacting business sustainability.² These three facts show that inventory management is not merely a technical activity, but an important part of a company's economic efficiency.

In this context, food waste cannot be understood merely as operational waste. From a Sharia economics perspective, food waste is

¹ Sanna-Mari Renfors, "Food Waste Management Practices in Restaurants : How to Prevent and Reduce Food Waste ?", *Finnish Journal of Tourism Research* 20, no. 2 (2024): 14–22.

² Taufika Nurani Fajri and Elvia R. Shauki, "Potensi Food Loss Dan Food Waste Pada Umkm : MFCA , Nudging Dan Neutralization Theory," *Jurnal Aplikasi Dan Akuntansi (JAA)* 7, no. 2 (2023): 327–45, <https://doi.org/10.29303/jaa.v7i2.187>; Vicky Rizky Noor et al., "A Food Loss Behavior Model for Micro, Small and Medium Enterprises in an Agricultural Supply Chain," *Journal of Engineering and Management* 13, no. 1 (2025): 120–28.

closely related to the prohibition of *tabdzir*³ And *israf*.⁴ Islam considers resource management to be part of the *amanah* that must be preserved and utilized proportionally. Waste of food that is still usable is seen as a form of squandering wealth and blessings, which is normatively contrary to the principles of justice, balance, and benefit in economic activities.⁵ Therefore, controlling food waste in the culinary business is not only relevant to be studied from a managerial perspective, but also has normative implications in the framework of Islamic economics. In this context, the inventory management system does not merely function as a tool for operational efficiency, but can also be understood as a practical mechanism to reduce *tabdzir* practices. Thus, disciplined, measurable, and responsible stock management is part of business actors' efforts to comply with Sharia principles related to the management of wealth and resources.

In the context of cafés, food waste emerges as a real challenge directly related to the procurement, storage, and use of raw materials.⁶ Inaccuracies in calculating daily requirements, fluctuations in customer numbers, and negligence in implementing storage operational standards can exacerbate the amount of wasted ingredients.⁷ This situation calls for

³ Deni Lubis, Ahmad Rodoni, and Euis Amalia, "Determinants of Food Waste Behavior in Muslim Household Food Consumption in Indonesia," *AL-MUZARA'AH: Journal of Islamic Economics* 12, no. 2 (2024): 257–75, <https://doi.org/10.29244/jam.12.2.257-275>.

⁴ Ahmad Agus Fauzi, "Penyikapan Islam Terhadap Mubadzir Dan Isrof Dalam Konsumsi Studi Tentang Etika Penggunaan Sumber Daya Alam," *Jurnal Riset Ekonomi Islam* 3, no. 2 (2024): 33–40.

⁵ Syaparuddin, *Ilmu Ekonomi Mikro Islam: Peduli Masalah vs Tidak Peduli Masalah*, ed. Jumriani, 2017.

⁶ Maria Refita Dewi, "Kontribusi Divisi Pembelian Dalam Manajemen Dan Pengendalian Persediaan Bahan Baku Di Restoran over Horizon , Semarang over Horizon," *Jurnal Dimensi* 5, no. 1 (2025): 9–13, <https://doi.org/10.32897/dimensi.v5i1.4074>.

⁷ A Hasanah, E I K Putri, and M Ekayani, "Kerugian Ekonomi Dari Sisa Makanan Konsumen Di Rumah Makan Dan Potensi Upaya Pengurangan Sampah Makanan Economic Losses of Restaurant Consumer s ' Plate-Waste and Potential Effort to Reduce the Food Waste Dikonsumsi Manusia , Akan Tetapi Tidak Dikonsumsi," *Jurnal Pengelolaan Lingkungan Berkelanjutan (Journal of Environmental Sustainability Management)* 6, no. 1 (2022): 45–58.

a more measurable, disciplined approach⁸, and a waste reduction oriented inventory system.

Various studies confirm that food waste is a major problem in the culinary business. A study conducted by Alka Ashwini, et al, shows that the café and restaurant sector contributes to a large part of global food waste⁹ because the raw materials are classified as *perishable goods* with a short shelf life, such as fruit, vegetables, meat, and dairy products, so the risk of spoilage is higher when inventory management is not optimal. In addition, research by Taufika Nurani Fajri and Elvia R. Shauki also reveals that waste in culinary MSMEs generally occurs at three critical points: raw material procurement, storage, and daily use.¹⁰ The mismatch between demand and supply, weak mechanisms for controlling excess stock¹¹, and a lack of discipline in storage SOPs are listed as the main causes of ingredient spoilage and increased *operational costs*.¹² These findings reinforce that inventory management is not merely an administrative activity but a strategic practice that determines the efficiency and sustainability of a business.

Although there is considerable research on food waste in the culinary business, most of the literature still focuses on technical and operational approaches, while studies that specifically link and integrate Islamic values, particularly the value of *amanah*, into the inventory management system of local scale cafés are still relatively limited. In fact,

⁸ Carlos Martin-rios, Christine Demen Meier, and Susana Pasamar, "Sustainable Waste Management Solutions for the Foodservice Industry : A Delphi Study," *Waste Management & Research* 40, no. 9 (2022): 1412–23, <https://doi.org/10.1177/0734242X221079306>.

⁹ Alka Ashwini Nand et al., "International Journal of Hospitality Management Understanding Food Waste in the Hospitality Industry : A Social Practice Theory Approach," *International Journal of Hospitality Management* 130 (2025): 104232, <https://doi.org/10.1016/j.ijhm.2025.104232>.

¹⁰ Fajri and Shauki, "Potensi Food Loss Dan Food Waste Pada Umkm : MFCA , Nudging Dan Neutralization Theory."

¹¹ Isabela Maganha et al., "Unveiling Food Waste : A Case Study of a Restaurant Specializing in Japanese Cuisine in Brazil," *Waste Management Bulletin* 3 (2025): 100261, <https://doi.org/10.1016/j.wmb.2025.100261>.

¹² Patrick Christopher William and Rendy Sarudin, "Analisis Food Waste Management Terhadap Operasional Di the Square Restaurant Novotel Tangerang," *JlIP (Jurnal Ilmiah Ilmu Pendidikan)* 8, no. 8 (2025): 9495–9504.

if we explore more deeply the integration between moral values and managerial practices, it has the potential to produce a more effective and sustainable inventory management model.

This study uses two main theoretical frameworks as its conceptual basis: Ethical Theory and *Amanah* Values (Islamic Business Ethics) and Inventory Management Theory. First, Ethical Theory and *Amanah* Values emphasize that every resource owned by a business actor is a trust that must be managed responsibly.¹³ From the perspective of Islamic economics and business, *amanah* means the obligation to maintain, utilize, and manage resources optimally,¹⁴ including in food inventory management. Wasteful, unmeasured, or unbeneficial use is a form of non-*amanah*, which in the Islamic perspective is categorized as close to *israf* (wastefulness).¹⁵ This foundation is reinforced by verses from the Qur'an, for example, QS. al-Baqarah [2]: 283, which emphasizes the importance of safeguarding wealth and *amanah*, as well as hadiths that emphasize honesty and responsibility in transactions. Abdul Haqi & Muchlis¹⁶ in Islamic Business Ethics emphasize that moral values and social responsibility must be the basis of business practices, so that business actors consciously apply the principle of *amanah* in their daily operational decision-making. In the context of this study, *amanah* serves as an ethical framework that encourages inventory management at Café Teras to reduce food waste responsibly.

Second, Inventory Management Theory is used to understand how inventory is managed efficiently and promptly. In inventory management, inventory is viewed as a strategic asset that must be controlled through demand planning, stock control, and evaluation of material usage to achieve cost efficiency. The main concepts in this theory

¹³ Mohammad Ghozali et al., "Business Practice: An Islamic Business Ethics Perspective," *AL-IKTISAB: Journal of Islamic Economic Law* 8, no. 2 (2024): 89–100, <https://doi.org/10.21111/aliktisab.v8i2.13101>.

¹⁴ Abdul Haqi and Madian Muhammad Muchlis, "Tinjauan Literatur Tentang Etika Bisnis Syariah Berdasarkan Prinsip Amanah Dan Adil," *Kajian Ekonomi Dan Akuntansi Terapan* 1, no. 4 (2024): 124–34, <https://doi.org/10.61132/keat.v1i4.639>.

¹⁵ Fauzi, "Penyikapan Islam Terhadap Mubadzir Dan Isrof Dalam Konsumsi Studi Tentang Etika Penggunaan Sumber Daya Alam."

¹⁶ Abdul Haqi and Madian Muhammad Muchlis, "Tinjauan Literatur Tentang Etika Bisnis Syariah Berdasarkan Prinsip Amanah Dan Adil."

include Just-in-Time Inventory, which aims to reduce excess stock and potential food waste; Economic Order Quantity (EOQ), which helps determine the optimal order quantity to minimize storage costs and losses.¹⁷ And FIFO (First-In, First-Out), which ensures that materials that entered first are used first so that they do not spoil or go stale.¹⁸ The application of these concepts enables more efficient and timely management of perishable raw materials, while also supporting waste reduction. The integration of inventory management theory with the value of *amanah* allows cafés to implement stock management practices that are not only economically efficient but also in line with Islamic ethical principles, thereby achieving sustainable food waste reduction.

Through the integration of these two theories, this study seeks to build a more comprehensive understanding of how the application of the value of *amanah* can play a mediating role in food inventory management in cafés, while encouraging the creation of efficient, ethical, and sustainable culinary business operations. This approach allows raw material inventory management to not only consider technical and financial aspects, but also take into account moral dimensions and social responsibility in accordance with Islamic economic principles.¹⁹ Thus, this study is expected to provide conceptual and practical contributions to the development of ethics-based inventory management and the value of *amanah* in the local culinary industry.

In general, this study is designed to fill the scientific gap in the study of Islamic ethics-based inventory management, particularly regarding the lack of discussion on the application of the value of *amanah* as an ethical principle in raw material inventory management in the culinary business. So far, studies on café operational efficiency have tended to focus on technical aspects such as stock control, demand forecasting, or storage

¹⁷ Atika Zahra et al., "Inventory Management as the Key to Improving the Company ' s Operational Performance (Manajemen Persediaan Sebagai Kunci Peningkatan Kinerja Operasional Perusahaan)," *Jurnal Ilmiah Ekonomi Dan Manajemen* 3, no. 3 (2025): 418–28.

¹⁸ Oki Nursetiowati and Kartika Dewi, "Pentingnya Penerapan Metode Fifo Dalam Meningkatkan Standart Kualitas Bahan Baku Di Hotel," *Jurnal Sains Manajemen* 5, no. 1 (2023): 46–51.

¹⁹ Fitrayani, "Integrasi Nilai-Nilai Islam Dalam Praktik Manajemen Bisnis Modern," *Jurnal Pilar: Jurnal Kajian Islam Kontemporer* 16, no. 1 (2025): 1–13.

strategies alone, without placing moral and ethical values such as responsibility, honesty, and accuracy as part of the mechanisms that influence inventory management behavior and the success of reducing food waste. By presenting the value of *amanah* as an ethical framework, this study seeks to show that the effectiveness of inventory management at Café Teras is not only influenced by technical procedures but also by the internalization of ethical values that shape employee discipline, responsibility, and consistency in decision-making related to the use of raw materials.

B. LITERATURE REVIEW

1. Food Waste in The Culinary Business

Food waste in food services is understood as food waste that arises mainly at the end of the production chain, from preparation, processing, to distribution in food service units. Lins et al. emphasize that, to date, there is no single agreed-upon definition in the literature, so the understanding of food waste is often adjusted to the research context.²⁰ In the context of restaurants, Renfors shows that food waste can occur at critical points such as menu planning, ingredient preparation, serving, and leftovers on customers' plates.²¹ Tourism and hospitality literature highlights that the food service sector is a significant contributor to food waste accumulation, due to its raw material-intensive operational characteristics and tendency to generate waste during preparation and consumption.²² A study in the hospitality sector by Vuksanović et al. adds that chefs' capacity and knowledge of sustainability practices play an important role in reducing waste, for example, through proper storage rotation, such as FIFO, efficient ingredient selection, and menu

²⁰ Máisa Lins et al., "Food Waste on Foodservice: An Overview through the Perspective of Sustainable Dimensions," *Foods* 10, no. 6 (November 2021): 1175, <https://doi.org/10.3390/foods10061175>.

²¹ Renfors, "Food Waste Management Practices in Restaurants : How to Prevent and Reduce Food Waste ?"

²² Viachaslau Filimonau et al., "Food Waste and Its Management in the Foodservice Sector of a Developing Economy : An Exploratory and Preliminary Study of a Sample of Restaurants in Iraq," *Tourism Management Perspectives* 45, no. November 2022 (2023): 101048, <https://doi.org/10.1016/j.tmp.2022.101048>.

adaptation.²³

More broadly, a number of studies show that food waste in the food service industry is influenced by managerial and operational factors, including suboptimal menu planning, inefficient inventory practices, and production decisions that are not aligned with actual demand.²⁴ In Indonesia, research by Rivanty and Hermawan highlights that pro-environmental behavior in companies and the implementation of Material Flow Cost Accounting (MFCA) contribute to low levels of food loss and food waste. These findings indicate that behavior-based approaches and information management systems can improve the efficiency of food use while supporting more sustainable culinary business practices.²⁵

2. Inventory Management in Culinary MSMEs

Inventory management in a business context refers to the process of planning, implementing, controlling, and evaluating the activities of purchasing, storing, and distributing materials and finished goods to meet consumer demand on time while maintaining cost efficiency.²⁶ The main functions of inventory management include deciding "how much" and "when" to purchase goods, how to store them, and how to distribute them so that the flow of goods in the supply chain runs smoothly.²⁷ Research by Bagum et al. shows that the complexity of the supply chain and costs in the supply chain have a significant effect on the effectiveness of inventory management, and optimal inventory management improves product

²³ Nikola Vuksanovi and Dunja Demirovi, "Culinary Knowledge and Sustainability : Chef-Led Food Waste Management in Serbia ' s Hospitality Sector," 2025, 1–28.

²⁴ Ronelle Crocker, Reshma Sucheran, and Nirmala Dorasamy, "A Critical Review of Factors Contributing to Food Waste in the Food Service Industry," *African Journal of Hospitality, Tourism and Leisure* 14, no. 3 (2025): 537–43, <https://doi.org/10.46222/ajhtl.19770720.635>.

²⁵ Nathania Ester Rivanty and Ancella Anitawati Hermawan, "Analisis Hubungan Perilaku Pro-Lingkungan Dengan Besarnya Food Loss & Food Waste Berdasarkan MFCA," *Jurnal Informatika Ekonomi Bisnis* 6, no. 4 (2024): 974–81, <https://doi.org/10.37034/infec.v6i4.1073>.

²⁶ Dya Ayuning Wardhani and Bambang Suharto, "Metode EOQ Berbasis Digital Guna Meningkatkan Efisiensi Manajemen Persediaan Bahan Pada FB Service Hotel," *Digital Transformation Technology* 4, no. 1 (2024): 225–31.

²⁷ Wardhani and Suharto.

quality, sales, and customer satisfaction.²⁸ The theoretical basis also confirms that inventory management is supported by quantitative models such as EOQ, ROP, and dynamic inventory management, especially in the food industry, which is sensitive to expiration dates. In addition, holding costs, ordering costs, and supply chain complexity affect inventory efficiency; the higher the costs and the more complex the supply chain, the greater the challenge of achieving efficiency. The findings of this study support this theory by showing that the effectiveness of inventory management is an important mediator that links costs and complexity to operational performance and customer satisfaction. Furthermore, good inventory management also plays a role in reducing costs, mitigating operational risks, and increasing the speed and flexibility of business processes.²⁹

In previous studies related to culinary MSMEs, inventory management has been proven to be a crucial variable for smooth operations and business competitiveness. Research in the food and beverage sector shows that optimizing the inventory of perishable raw materials can improve product quality, customer satisfaction, and sales.³⁰ Another study found that the implementation of good inventory management has a positive effect on operational performance, including service speed and reduction in storage costs.³¹ Specifically for culinary MSMEs, the integration of digital technology in EOQ methods, such as real-time monitoring and automatic ordering systems, has been proven to reduce inventory costs while increasing the efficiency of raw material

²⁸ Mst. Nasima Bagum et al., "Uncertain Supply Chain Management Optimizing Inventory Management in Food Processing : A Conceptual Model Linking Supply Chain Costs and Complexity to Sales , Quality , and Customer Satisfaction," *Uncertain Supply Chain Management* 14 (2026): 55–66, <https://doi.org/10.5267/j.uscm.2025.1.001>.

²⁹ Zahra et al., "Inventory Management as the Key to Improving the Company ' s Operational Performance (Manajemen Persediaan Sebagai Kunci Peningkatan Kinerja Operasional Perusahaan)."

³⁰ Bagum et al., "Uncertain Supply Chain Management Optimizing Inventory Management in Food Processing : A Conceptual Model Linking Supply Chain Costs and Complexity to Sales , Quality , and Customer Satisfaction."

³¹ Zahra et al., "Inventory Management as the Key to Improving the Company ' s Operational Performance (Manajemen Persediaan Sebagai Kunci Peningkatan Kinerja Operasional Perusahaan)."

usage.³² However, many culinary SMEs have yet to fully implement formal or quantitative inventory management models, resulting in frequent stock surpluses or shortages.³³ Thus, the literature emphasizes that strengthening inventory management capabilities is a crucial strategy for culinary SMEs to improve operational performance and support business sustainability

3. The Value of *Amanah* in Islamic Business Ethics

Islamic business ethics places *amanah* as one of the core values that must be realized in all business activities. Halal business practices carried out by business actors not only follow certification rules but also internalize the four characteristics of the Prophet Muhammad saw., namely *şidq*, *amanah*, *tabligh*, and *fatanah*, into operational processes, from raw material selection, processing, customer service, to marketing. Thus, business activities are not merely viewed as economic activities, but as a form of practicing *amanah* that provides social and spiritual benefits.³⁴ This view emphasizes that Islamic business ethics demands harmony between profit orientation and compliance with moral values that prioritize responsibility, honesty, and benefit.

Hafidhuddin and Tanjung explain that *amanah* is the responsibility of carrying out every task and obligation, which is manifested through openness, honesty, optimal service, and *ihsan* in all aspects of *muamalah*. This principle is an important foundation for business actors, especially those directly related to public services.³⁵ In line with this, Abdul Haqi and Muchlis emphasize that *amanah* from the perspective of sharia includes maintaining trust, transparency, and responsibility in asset management, information delivery, and the fulfillment of transaction rights and obligations.

Within the framework of Islamic economics, resource management practices that lead to food waste can be categorized as a form of *tabdzir*,

³² Wardhani and Suharto, "Metode EOQ Berbasis Digital Guna Meningkatkan Efisiensi Manajemen Persediaan Bahan Pada FB Service Hotel."

³³ Wardhani and Suharto.

³⁴ Ghozali et al., "Business Practice: An Islamic Business Ethics Perspective."

³⁵ Didin Hafidhuddin and Hendri Tanjung, *Manajemen syariah dalam praktik*, Cet. 1 (Jakarta: Gema Insani, 2003).

thus requiring control mechanisms that are not only technically effective but also lawful and compliant with Islamic principles.³⁶ Therefore, consistency in maintaining integrity, avoiding waste and fraud, and providing fair treatment to consumers, employees, and business partners are important factors in the success of Sharia based businesses. Research by Kusmilawaty et al. adds that the application of the value of *amanah* in Islamic Good Corporate Governance (GCG) through fairness, transparency, accountability, and compliance with sharia principles not only strengthens the ethical foundation of the company but also increases public trust and business sustainability in the modern era.³⁷

C. METHOD

This study employs a qualitative research design using a field research approach to gain an in-depth understanding of how the value of *amanah* is implemented in inventory management to reduce food waste at Café Teras, a local scale culinary business in Bone Regency. A qualitative approach was chosen because the study aims to explore contextual understandings, lived experiences, and actual business practices in applying Islamic ethical principles, which cannot be adequately measured through quantitative methods. The research participants consisted of the owner, cashier, and kitchen and bar supervisor. Participants were selected using purposive sampling, with the criteria that they possess direct experience in inventory management processes and a clear understanding of the implementation of *amanah* values at Café Teras.

Data was obtained through *in-depth interviews* with the owner and employees responsible for raw material management. Data analysis used Sugiyono's approach with three simultaneous activities, namely data reduction, data display, and conclusion drawing/verification, with triangulation of sources to enhance the credibility of the findings.³⁸

³⁶ Abdul Haqi and Madian Muhammad Muchlis, "Tinjauan Literatur Tentang Etika Bisnis Syariah Berdasarkan Prinsip Amanah Dan Adil."

³⁷ Kusmilawaty, Azhari Akmal Tarigan, and Yenni Samri Juliati Nasution, "Good Corporate Governance Sebagai Implementasi Amanah Dalam Al- Qur ' an (Tafsir QS . Al-Mu ' Minun)," *Jurnal Ilmiah Ekonomi Islam* 10, no. 1 (2024): 1045–51.

³⁸ Sugiyono, *Metode Penelitian Kuantitatif, Kualitatif, Fan R&D* (Bandung: Alfabeta, 2014).

D. RESULTS AND DISCUSSION

1. Inventory Management Practices and Theory Implementation

Inventory management practices at Café Teras show that raw material control is carried out in a structured manner through a combination of daily planning, periodic checks, and ongoing evaluation. From the results of interviews and observations, daily material requirements are planned based on historical sales data and estimated customer numbers. This approach is applied to reduce excess purchases and maintain efficient use of materials. Furthermore, the cashier, who is also responsible for operational management, conducts stock checks every 10 days, then compiles a report on the actual inventory status and sends it to the owner. This report contains data on stock levels that are running low, stock that is still sufficient, and categories of materials that require special attention.

In addition to these routine checks, managers also pay attention to actual reports on certain days, especially when there is an increase in the number of visitors, such as weekends, religious holidays, or certain moments that cause demand to increase. On these days, stock must be increased beyond the usual amount to ensure availability to meet demand. This process of adjusting stock based on actual reports strengthens the accuracy of planning, while preventing material shortages that could disrupt operations.³⁹

At the implementation level, inventory management theory principles are applied consistently. The kitchen manager implements FIFO (First-In, First-Out) to regulate ingredient rotation so that ingredients that arrive earlier are used first. The bar section implements daily purchasing for perishable ingredients such as avocados, dragon fruit, and other fresh fruits to avoid rapid spoilage. This approach is in line with the Just-in-Time (JIT) concept, where raw materials that are at risk of rapid deterioration are purchased according to daily needs so that they

³⁹ Feby Gusti Dendra, Elita Amrina, and Ahmad Syafruddin Indrapriyatna, "Inventory Control Model of Beef for Rendang Products," *Jurnal Optimasi Sistem Industri* 22, no. 1 (2023): 22–30, <https://doi.org/10.25077/josi.v22.n1.p22-30.2023>.

do not pile up in storage.⁴⁰

On the other hand, capital constraints are a major consideration in determining procurement strategies. Due to limited operating capital, Café Teras cannot purchase large quantities of ingredients at once. Therefore, the management applies the Economic Order Quantity (EOQ) principle in practice, which is to determine the optimal order quantity based on weekly requirements, 10 day inventory reports, and daily demand conditions. Although not calculated mathematically, ordering decisions are made by considering the balance between production needs, storage costs, and available capital. In other words, capital constraints encourage the adaptive application of EOQ and JIT to maintain operational efficiency and prevent food waste.

The combination of periodic stock checks, specific daily actual reports, the application of FIFO in the kitchen, the application of JIT in the bar, and EOQ practices tailored to capital capacity shows that inventory management at Café Teras has been disciplined and responsive to market conditions. These practices significantly contribute to reducing food waste, while also demonstrating that inventory management theory can be implemented flexibly and effectively in the context of MSMEs with limited space, capital, and fluctuating demand

2. The Value of *Amanah* as an Ethical Foundation

The value of *amanah* internalized by the owners and employees of Café Teras not only serves as an ethical guideline but also shapes an organizational culture oriented towards responsibility and transparency.⁴¹ In an operational context, *amanah* becomes a mechanism for controlling behavior that encourages each individual to carry out their duties with the awareness that the raw materials, equipment, and finances they manage are *a trust* that must be safeguarded. This awareness is evident in the discipline of recording stock, the thoroughness in storing materials according to standards, and the commitment to avoiding

⁴⁰ Alvin Agus Prasetyo, Hansly Tunjang, and Achmad Syamsudin, "Evaluation of the Implementation of a Just-in-Time System for Raw Material Inventory to Satisfy Production Requirements," *JSM: Jurnal Sains Manajemen* 12, no. 1 (2023): 31–36.

⁴¹ J. Junaidi, "The Role of Ethical Leadership to Employees Work Engagement: A Social Learning Theory Perspective," *International Journal of Social Economics*, 51, no. 7 (2024): 884–898., <https://doi.org/10.1108/IJSE-03-2023-0218>.

practices that can cause inefficiency, such as over purchasing or neglecting materials that are nearing their expiration date.

The application of the value of *amanah* also strengthens internal accountability, where every employee has a moral responsibility to maintain the trust of owners and consumers. This principle is reflected in the way they account for the use of materials, provide honest and accurate inventory reports, and communicate openly when there are stock shortages or surpluses. In line with Islamic business ethics literature, *amanah* serves as the main pillar for achieving fairness, efficiency, and honesty in economic activities, as it encourages business actors to balance profit, benefit, and business sustainability.⁴² This normative foundation is reinforced by Allah swt. words in QS. Al-Mu'minūn (23): 8, which reads:

وَالَّذِينَ هُمْ لِأَمْتِهِمْ وَعَهْدِهِمْ رَاعُونَ ۖ

Translation: (Truly fortunate are) those who preserve their trusts and covenants.

This verse emphasizes that safeguarding *amanah* is an essential characteristic of believers. In the context of business, this verse provides moral legitimacy that every form of responsibility, including inventory management, must be carried out with precision and integrity.⁴³

Furthermore, the existence of *amanah* as a core value also influences strategic decision-making, particularly in the context of supplier selection and inventory cycle management. Owners selectively choose suppliers with a good track record, not only in terms of price, but also honesty and consistency in quality. This shows that *amanah* does not stop at the personal level, but extends to become a standard in building sustainable business relationships. In addition, the decision to purchase materials according to actual needs and implement FIFO-based stock rotation demonstrates the integration of the value of *amanah* with modern

⁴² A. L Kahfi and H. Mahmud, "Penerapan Etika Amanah Dalam Manajemen Kepemimpinan Modern Perspektif Qs Al-Ahzab: 72 Berdasarkan Tafsir Al-Misbah," *Al-Munir: Jurnal Studi Ilmu Al-Qur'an Dan Tafsir* 6, no. 2 (2024): 293-314, <https://doi.org/10.24239/al-munir.v6i2.1009>.

⁴³ T Andika, M Taqiyuddin, and N Yunita, "Amanah Dan Khianat Dalam Al-Qur'an Menurut Quraish Shihab," *Al Tadabbur: Jurnal Ilmu Alquran Dan Tafsir*, *Al-Tadabbur: Jurnal Ilmu Al-Quran Dan Tafsir* 5, no. 2 (2020): 177-206, <https://doi.org/10.30868/%2520/at.v4i01.427>.

inventory management practices, so that the risk of material damage and waste can be minimized.⁴⁴

Thus, the value of *amanah* is not only a normative aspect but also an ethical foundation that guides operational efficiency, shapes employee behavior, and strengthens the integrity of the overall inventory management system. These findings show that Islamic ethics are not only conceptual but can be operationalized in real world daily managerial practices in the context of culinary MSMEs.

3. The Relationship Between *Amanah* and Food Waste Reduction

Interview and observation data show that the consistent application of the value of *amanah* has a significant effect on employee discipline, accuracy, and sense of responsibility in operational activities. The Captain of the Kitchen and Bar emphasized that awareness of *amanah* encourages him to check raw materials before use, ensure that no materials are damaged or past their expiration date, and record daily usage regularly. This practice directly contributes to minimizing raw material damage and the potential for food waste at Cafe Teras. This finding is in line with the Islamic ethical principle stated in QS. Al-Mu'minūn (23): 8 “and those who keep their trusts and covenants.” This verse emphasizes that keeping *amanah* is a key characteristic of believers, which is meaningful not only on an individual moral level but also in professional performance.⁴⁵ In the operational context of a restaurant or cafe, *amanah* becomes an ethical guideline that shapes disciplined, accurate, and responsible work behavior. When the value of *amanah* is instilled in workers, operational activities such as checking ingredients, stock rotation, recording incoming and outgoing goods, and saving ingredients are no longer carried out merely as technical obligations, but as a form of spiritual commitment.⁴⁶

⁴⁴ Marzena Tomaszewska et al., “Sustainable Food Waste Management in Food Service Establishments in Relation to Unserved Dishes,” *Sustainability* 16, no. 15 (November 2024): 6631, <https://doi.org/10.3390/su16156631>.

⁴⁵ Andika, Taqiyuddin, and Yunita, “Amanah Dan Khianat Dalam Al-Qur’an Menurut Quraish Shihab,” *Al Tadabbur: Jurnal Ilmu Alquran Dan Tafsir*,”

⁴⁶ Udin Udin et al., “Islamic Work Ethics , Affective Commitment , and Employee ’ s Performance in Family Business : Testing Their Relationships,” *Sage Open*, 12, no. 1 (2022): 1–12, <https://doi.org/10.1177/21582440221085263>.

Furthermore, field data shows that internalizing *amanah* contributes to reducing negligence, which is often the main cause of food waste. For example, negligence in monitoring expiration dates, carelessness during storage, or irregular stock records can increase the risk of ingredients spoiling before use. However, when employees view their duties as a responsibility, the potential for negligence is significantly reduced because they are motivated to be more thorough, careful, and proactive.

Thus, reducing food waste is not only achieved through the application of technical methods such as EOQ, JIT, or periodic inspection systems, but also through the internalization of ethical values within employees.⁴⁷ *Amanah* serves as a mediator that connects work discipline with effective inventory management. This value motivates employees to routinely check materials, manage stock according to actual needs, perform simple forecasting based on sales reports, and avoid negligent behavior that can cause material damage or waste.

The blending of spiritual values and technical procedures creates a more holistic inventory management system, where efficiency is achieved not only through systems, but also through the integrity of individuals.⁴⁸ At Cafe Teras, this is evident in how employees consistently record stock, follow operational storage standards, and quickly report potential damage to materials so that it can be handled before it causes waste.

Thus, the inventory management practices implemented at Café Teras can be understood not only as an operational strategy to reduce losses, but also as a form of indirect compliance with the prohibition of *tabdzir* in Islam. The implementation of systems such as FIFO, purchasing based on actual needs, and honest stock recording and reporting serves as a preventive mechanism against food waste, which is normatively prohibited in Sharia principles. These findings confirm that the value of *amanah* acts as a link between moral obligations and legal compliance in culinary business practices.

⁴⁷ Nikola Vuksanović et al., "Culinary Knowledge and Sustainability: Chef-Led Food Waste Management in Serbia's Hospitality Sector," *Sustainability* 17, no. 18 (November 2025): 8497, <https://doi.org/10.3390/su17188497>.

⁴⁸ Teresia Debby et al., "A Study of Intention to Reduce Indonesia's Food Waste," *MATRIK: Jurnal Manajemen, Strategi Bisnis, Dan Kewirausahaan* 19, no. 2 (2025): 159–70.

4. Constraints and Strategic Recommendations

Although the application of the value of *amanah* and inventory management practices has been implemented, interview data show that Café Teras faces several obstacles that create a gap between inventory management theory (EOQ and JIT) and actual practice in the field. One of the main challenges is limited capital, which makes it impossible to purchase ingredients in optimal quantities as calculated in EOQ. The owner explained that for cash flow efficiency, purchases of staple ingredients such as milk are made twice a month, at the beginning and end of the month. This purchasing pattern was chosen so that capital is not depleted at one time, even though EOQ theory may require a different purchase frequency. This condition shows that adaptation to the financial context of MSMEs is an important factor in the implementation of inventory methods.⁴⁹

Additionally, fluctuations in customer numbers still make it difficult to implement JIT ideally.⁵⁰ When demand increases or changes suddenly, certain ingredients may run out before restocking time, so menu availability is not always consistent. To maintain integrity and avoid using unsuitable ingredients, waiters choose to inform customers that the menu item is “sold out” rather than forcing ingredient substitutions or compromising product quality. This decision demonstrates the integration of integrity in service, as it prioritizes honesty and quality over short-term profits.

Another challenge arises with ingredients that have a short shelf life, particularly fresh fruit. To minimize the risk of spoilage, staff take the technical step of peeling the fruit and storing it in the freezer. This method extends shelf life while supporting efforts to reduce food waste. However, this practice still requires strict quality control because frozen ingredients have a limited use by date and are prone to texture deterioration if not stored properly.

⁴⁹ Tri Ratna Pamikatsih and Dewi Ika Octavia, “Optimalisasi Manajemen Persediaan Berbasis Keuangan Pada Toko Novi (Bu Atun) Di Klaten,” *PROFICIO: Jurnal Pengabdian Kepada Masyarakat* 6, no. 2 (2025): 968–73.

⁵⁰ Prasetyo, Tunjang, and Syamsudin, “Evaluation of the Implementation of a Just-in-Time System for Raw Material Inventory to Satisfy Production Requirements.”

Based on these findings, several strategic recommendations can sharpen the integration of the value of *amanah* in inventory management practices:

- a. Developing a purchase plan based on monthly demand data, so that the twice-monthly restocking pattern can still meet demand fluctuations without sacrificing cash flow. Historical sales data can help map material requirements more precisely.
- b. Daily monitoring and evaluation of stock, especially perishable items such as fruit, to detect potential food waste early. This evaluation is also a form of implementing *amanah* because it ensures that ingredients are not wasted.
- c. Developing *Amanah* based SOPs that emphasize procedures for handling fresh ingredients, storage standards (e.g., storage time limits for frozen fruit), and service measures when stocks run out, including procedures for communicating “sold out” information to customers honestly and professionally.
- d. Utilizing simple technology such as spreadsheets or digital stock applications to record daily usage, compile restocking predictions, and monitor the expiration dates of frozen and non-frozen ingredients.

Thus, the integration of *amanah* values and operational strategies has proven to play an important role in maintaining efficiency, honesty, and business sustainability. This approach not only helps reduce food waste but also ensures that every decision related to inventory is made ethically in line with Islamic economic principles and the characteristics of MSMEs that require flexible adaptation to financial conditions.

E. CONCLUSION

Food waste reduction at Café Teras is influenced not only by the application of appropriate inventory management techniques, but also by the internalization of *amanah* as an ethical foundation in daily operational activities. The value of *amanah* fosters discipline, accuracy, and responsibility among employees, enabling consistent demand planning, stock monitoring, material recording, and inventory rotation. From the perspective of Islamic economics, the inventory management system implemented at Café Teras functions as a practical mechanism for preventing *tabdzir*, positioning food waste reduction not merely as an

economic objective but also as a form of compliance with Sharia principles. The integration of *amanah* values with modern managerial practices results in an adaptive and effective inventory management system aligned with Islamic business ethics.

Café Teras applies a combination of inventory management methods, including FIFO, daily procurement of perishable ingredients, and contextual adaptations of EOQ and JIT in response to capital constraints typical of MSMEs. Although these methods are not mathematically formalized, their flexible application remains operationally efficient and relevant. The internalization of *amanah* significantly reduces negligence, which is a primary contributor to food waste, thereby supporting sustainable business practices. This study highlights that embedding ethical values into operational systems offers a viable and low-cost strategy for culinary MSMEs to enhance efficiency and sustainability. Future research is encouraged to adopt quantitative or comparative approaches across broader culinary MSME contexts to further examine the consistency and scalability of *amanah*-based inventory management in reducing food waste.

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