

Excel-Based Financial Reporting for Grocery Stores in Rajabasa

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Abstract

Purpose: This study aims to address the financial management challenges faced by grocery stores in Rajabasa, Bandar Lampung, due to business competition and limited financial literacy. It focuses on developing an Excel-based financial reporting application that is user-friendly for store owners without accounting backgrounds. The study also includes training and assistance to enable independent and sustainable usage.

Methodology: From a population of 278 grocery stores, 74 were selected using the Slovin formula with a 10% margin of error. One store was chosen for a case study. A mixed-method approach was used, combining qualitative and quantitative techniques such as documentation, questionnaires, interviews, observation, and focus group discussions. The application features automated modules for journals, ledgers, financial statements, and inventory reports.

Results: All respondents (100%) still used manual bookkeeping, citing limited technological skills, fear of errors, and difficulty in profit tracking. The Excel-based application simplified transaction recording and report generation, increased accuracy, and enhanced financial insight. Training and mentoring significantly improved users' ability to operate the system independently.

Conclusion: The study demonstrates that a simple, Excel-based financial reporting application can improve financial management in traditional grocery stores. It presents a scalable, low-cost model for enhancing financial literacy and operational efficiency among MSMEs in underserved areas.

Limitations: This research was limited to a single grocery store and has not been tested on other types of MSMEs.

Contributions: The study offers a practical solution for small business financial management and supports the digital literacy of MSME owners.

Keywords: *Accounting Application, Excel, Financial Reporting, Grocery Store.*

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1. Introduction

Micro, Small, and Medium Enterprises (MSMEs) play a strategic role in Indonesia's economy by contributing significantly to job creation and the distribution of goods and services. One of the most common and accessible forms of MSMEs is the traditional grocery store (toko kelontong), which offers affordable daily necessities, especially for middle- and lower-income communities (Kineta & Suryaningrum, 2024). Bakrie, Suri, Sahara, and Pratama (2024) stated that grocery stores are highly important in both rural areas and lower-income urban neighborhoods.

These stores often serve as the primary retail access points for local residents, making them vital to community welfare and local economic circulation. However, with the rapid pace of technological advancements and increasing competition from modern retail formats such as minimarkets and

supermarkets, grocery stores are under mounting pressure to survive and remain competitive in the market. They face significant challenges not only in terms of pricing and customer service but also in business operations, particularly financial management. Many Toko Kelontong still rely on manual bookkeeping or even informal memory-based records, which are prone to errors, data loss, and misinterpretation.

Pentiana and Yuniarti (2018) emphasized the need for modern tools and strategies to help businesses adapt to the evolving economic environment. Without proper financial recording systems, these microenterprises are likely to encounter difficulties in monitoring profitability, managing expenses, and making data-driven business decisions. Moreover, limited digital literacy and a lack of access to affordable technology further complicate their efforts to modernize. This situation is consistent with findings from training initiatives that stress the importance of introducing financial literacy and basic bookkeeping to micro-entrepreneurs, such as the “DUI” financial statement training model, which has proven effective in enhancing MSME capacity in financial reporting (Herawaty, Oktaviani, Tarigan, & Kushariani, 2023).

As digitalization becomes increasingly central to economic resilience and competitiveness, simple, low-cost financial recording solutions tailored to the needs of small retailers must be introduced. One potential strategy is the use of Excel-based financial recording tools, which offer both accessibility and functionality (Wardiningsih, Dewi, Umam, Rahayu, & Ferdaus, 2024; Wulandari, Zaman, Kurniawan, & Hanimah, 2024). By improving the quality of financial documentation, Toko Kelontong can better understand their financial condition, plan for growth, and even become more eligible for micro-financing or support from government programs. This aligns with community-based empowerment programs that emphasize financial independence and structured management practices to build more resilient and productive MSMEs (Mardiatmi, Nopiyanti, & Resti, 2022).

According to data from the Central Bureau of Statistics of Bandar Lampung City in 2022, Kemiling District had the highest number of grocery stores in Bandar Lampung in 2021, with 1,627 units, while Rajabasa District had 278. Although the number is small, this study focuses on Rajabasa based on the results of a preliminary survey, which indicated that many store owners in this district struggle to prepare simple and efficient financial reports. The survey was conducted while the researcher assisted in distributing the questionnaires for a lecturer's study. During the process, several store owners asked for help in creating financial statements to support their operations, highlighting a lack of knowledge of basic bookkeeping practices among micro-business actors.

In addition to these findings, the Rajabasa District is characterized by a dense population and a rapidly growing commercial environment, which further increases the demand for proper financial management among local micro-enterprises, such as grocery stores. Rajabasa was selected as the research location based on accessibility, as it is close to Politeknik Negeri Lampung. This proximity allowed the researcher to conduct more intensive observations and mentoring with grocery store owners, which would not have been feasible in more distant districts.

Thus, this study has a strong basis for understanding the real conditions of grocery stores in Rajabasa and for developing an Excel-based financial recording application tailored to meet their needs. The goal is not only to provide a practical tool but also to empower store owners through improved financial literacy, which is essential for sustainable growth. Baitii, Santi, Yudistira, and Listyarini (2024) stated that proper financial recording is a fundamental element of sustainable business. In the MSME context, structured bookkeeping not only helps owners understand their financial situation but also serves as the basis for strategic decision-making. With clear records, business owners can monitor cash flows, calculate profits, and plan business development. In addition, structured financial data can increase trust among external stakeholders, such as investors and financial institutions, which is crucial for MSMEs seeking to raise funds. Proper bookkeeping also supports compliance with tax regulations and ensures financial accountability.

However, many MSMEs still do not use adequate bookkeeping systems. This is often due to a lack of understanding of its importance, time limitations, or the perception that the process is complicated and

expensive. In many cases, MSME owners prioritize operational activities over administrative tasks, assuming that recording finances is not urgent or important. As a result, MSMEs frequently face difficulties in managing their finances, which can hinder business growth. Inefficient financial records may lead to misinformed decisions, difficulties in measuring performance, and increased vulnerability to financial risks. The main issue faced by grocery stores in Rajabasa is the lack of a structured financial recording system. Most transactions are recorded manually, and some owners do not keep any records. These practices reflect a broader problem of limited digital literacy and lack of access to simple bookkeeping tools tailored for small business environments. This makes it difficult for them to accurately determine income, expenses, or profits. Wahyuni (2021) noted that such practices hinder proper financial management and increase the risk of recording errors or uncontrolled spending. Poor financial documentation also creates challenges in planning inventory, controlling operational costs and objectively evaluating business performance.

N. Nurmala, Damayanti, and Yuniarti (2019) explained that the better the quality of accounting information as reflected in financial reports, the better the business performance. Accurate records allow for better forecasting, facilitate credit access, and support sustainable decision making. Nurmala and Irawan (2018) also suggested the need for a user-friendly, Excel-based application capable of producing accurate financial reports. This type of digital solution is considered a practical alternative for micro and small businesses with limited resources, as it requires minimal training and infrastructure development. Therefore, developing a simple and affordable Excel-based bookkeeping application is expected to bridge the gap between the need for proper financial management and the current limitations faced by MSMEs in Rajabasa.

Permatasari, Wahyuningsih, and Ekawanti (2024) pointed out that a practical solution is the development of an Excel-based financial reporting application. Excel is widely used, cost-effective, and has complete features suitable for small businesses. Its advantages include automatic calculations, chart creation, and preparation of systematic reports. It is also more affordable than dedicated accounting software. Using Excel, grocery store owners can easily record daily transactions, calculate profits, and generate simple financial reports, such as income statements, balance sheets, and cash flow statements. This Excel-based application provides convenience, especially for store owners without an accounting background.

In addition, the familiarity of Excel among business owners makes the transition to a more structured recording system less intimidating and more acceptable for them. Because Excel is often already available on their devices, the implementation of this system does not require additional investment in infrastructure or intensive training. The use of templates and simple formulas can be easily taught and replicated by MSME actors, ensuring sustainability and independence in financial management. The flexibility of Excel also allows for modifications and personalization according to the specific needs of each store (Wardiningsih et al., 2024). The development of an Excel-based financial reporting application is expected to improve the efficiency and effectiveness of financial management.

It simplifies bookkeeping tasks and reduces human error while enabling better decision-making through the availability of real-time data. Moreover, this study aligns with the government's efforts to accelerate digitalization among MSMEs as a key pillar of national economic growth. Susilawati, Hermansyah, Majid, Fatmasari, and Ningrum (2024) emphasized that financial management innovations must also consider local needs and business characteristics. Sari, Mildawati, Yahya, and Kurnia (2022) stated that the purpose of developing this Excel-based application is to assist store owners in recording transactions, generating financial reports, and improving their understanding of the financial conditions of their businesses. This application serves as a tool and a learning medium to enhance financial literacy among traditional business owners.

However, despite several studies emphasizing the importance of digital financial tools, few have specifically addressed the application of Excel-based systems tailored to traditional grocery stores in local Indonesian contexts, especially in areas like Rajabasa. Most previous research tends to focus on broader categories of MSMEs or emphasizes mobile app-based accounting tools, which may not be

accessible to technologically constrained users. Additionally, existing solutions often require Internet access, mobile devices, or specialized training, which are not always feasible for micro-enterprises operating in suburban or semi-urban areas. Therefore, this study seeks to fill this gap by developing a contextually relevant and accessible financial recording tool using Excel that aligns with the capacity, behavior, and needs of traditional store owners in Rajabasa.

This tool is designed to be simple, offline-friendly, and easily adoptable, without requiring intensive training or financial investment. Theoretically, this study contributes to the discourse on grassroots financial digitalization by proposing a practical and low-cost solution within the MSME financial empowerment framework. Furthermore, by integrating practical field insights and local business characteristics into the application design, this study ensures that the tool is both technically functional and socially acceptable. Ultimately, this Excel-based financial recording application is expected to help small businesses adapt to market competition, manage their finances more effectively, and improve their overall performance in the future.

2. Literature Review

2.1 Accounting Information System (AIS)

An Accounting Information System (AIS) is an information system component designed to record, process, and report financial data within an organization (Endaryati, 2021). For Micro, Small, and Medium Enterprises (MSMEs), AIS serves as a fundamental tool for organizing financial activities, particularly in contexts where access to professional accounting services is limited. SoM (2023) note that AIS, when integrated with tools such as Excel, allows MSMEs to systematically record transactions, process data, and generate reports with minimal technical barriers. AIS typically involves three key components: input (data entry), processing (data calculation and classification), and output (financial reporting). Sarwono and Munari (2022) emphasize that Excel enhances these components by offering user-friendly templates and automated functions, enabling business owners to prepare essential reports, such as income statements, balance sheets, and cash flow statements, more efficiently.

Furthermore, AIS not only supports financial reporting but also promotes accountability and operational control. Kustiwi, Alif, and Ridho (2024); Nuraini and Paramitalaksmi (2025) highlight that AIS adoption significantly reduces human error and improves cost-efficiency, especially for MSMEs lacking formal accounting backgrounds. This study positions itself within the existing literature by emphasizing the practical intersection between AIS theory and technological tools such as Excel, showcasing how a simplified AIS model can be implemented in real-world MSME environments. While prior studies have addressed AIS design or Excel's functionality independently, this study synthesizes both perspectives to demonstrate their combined relevance in improving financial literacy, accuracy, and sustainability among small-scale enterprises (Parapat, 2024).

2.2 Financial Management Theory for MSMEs

Financial management theory for MSMEs refers to a systematic approach in managing business finances, including planning, controlling, reporting, and analyzing financial activities (Sholeha, Nurafifah, & Misra, 2025; Sinarwati, Sujana, & Herawati, 2019). Effective financial management is critical for business sustainability, especially in small enterprises that often lack formal structure. Farwitawati (2018); Irfan, Juniar, Nasaruddin, Olifinda, and Febria (2024) emphasized that accessible tools such as Excel serve as practical solutions for basic bookkeeping, allowing MSMEs to record transactions and monitor cash flow accurately.

Furthermore, Wardokhi (2021) highlighted that financial transparency and accountability directly affect MSMEs' credibility in securing external funding and improving operational efficiency. This aligns with the broader function of Accounting Information Systems (AIS), where digital tools such as Excel can be integrated into a simplified AIS framework to support decision-making processes. The synthesis of financial management theory with AIS and Excel-based applications positions this study within the growing body of literature promoting the digital empowerment of MSMEs. By aligning financial practices with digital tools and systems development methods, such as the SDLC, this study addresses

the ongoing gap in accessible yet structured financial solutions for small business actors with limited resources (Nasir & Ginting, 2025).

2.3 Trading Company Theory

A trading company is a business entity engaged in purchasing and selling goods without undergoing production processes (Nurhidayati, Kurniawati, & Wahyudi, 2022). Grocery stores are a typical example of trading companies, where profits are obtained from the difference between the buying and selling prices of goods. Nestariya and Rahayu (2024); Pohan, Syafina, and Nasution (2024) emphasize that trading businesses are characterized by inventory control and the need for accurate financial records. However, in practice, many grocery store owners face obstacles in maintaining proper financial documentation because of limited accounting knowledge (Ayuningtyas & As' ari, 2024; Pratama & Utomo, 2023). To bridge this gap, digital tools such as Excel-based financial recording systems are being increasingly used.

These tools are designed to automate routine calculations and generate financial reports directly from daily transaction data. This aligns with the broader goal of the Accounting Information System (AIS), which emphasizes automation, accuracy, and accessibility in financial reporting, particularly for small-scale enterprises such as MSMEs. Thus, this study positions the use of Excel-based applications not merely as a technical aid but as an integrative solution that brings AIS principles into the practical context of trading companies. By synthesizing the challenges outlined in trading company operations with the advantages offered by AIS and digital tools, this study fills a gap in the existing literature that often separates technical systems from the everyday operational realities faced by MSMEs (Hasmawati, Chrestiana, Septina Louisa, & Rendy, 2023).

2.4 Decision Making Theory

Decision-making theory explains how individuals or groups make choices by processing available information to reach rational conclusions. For MSME business owners who often lack formal accounting education, this theory is essential for bridging the gap between financial information and strategic action (Muhyadi, 2003; Siswanto & Aqdam, 2024). In this study, the use of Excel-based financial recording tools serves as a practical application of this theory, allowing for the structured presentation of financial data such as profit, expenses, and cash flow, which facilitates quick and evidence-based decisions.

This theory is interlinked with the Accounting Information System (AIS) and the use of Excel, where financial data are not only recorded but also processed and reported efficiently. The integration of the System Development Life Cycle (SDLC) in developing the Excel application further enhances the reliability of financial information. By synthesizing these elements, the research positions itself at the intersection of financial technology and decision-making behavior among MSMEs, emphasizing how digital financial tools support rational business choices in real-world scenarios (Baihaqi, Supriatna, & Surya, 2025; Pajaria, Ginoga, Syahwani, Ramadhanti, & Rosyanti, 2024).

2.5 Contingency Theory

Contingency theory emphasizes that system effectiveness depends on the alignment between internal capabilities and external conditions. This study provides the rationale for designing an Excel-based accounting system that is not one-size-fits-all, but rather tailored to the specific operational characteristics of grocery stores. This aligns with the principle that system success is contingent on the organizational context. Vertical alignment is reflected in how the system addresses key MSME financial management needs, such as simplified reporting and access to funding, while horizontal alignment allows for integration with routine business processes, including inventory control and daily sales monitoring.

This theoretical perspective complements the SDLC framework, which provides structured steps for building the system and supports the use of AIS and Excel as adaptive tools. Thus, contingency theory serves as a bridge that connects system design (SDLC) with contextual application (MSME needs),

showing the study's unique contribution to the literature (Tindage, Manurung, & Manuhutu, 2025). Nonetheless, Harney (2016) warns of adoption challenges in contingency-based systems, emphasizing the importance of user training and support to ensure successful implementation of these systems. This highlights the practical necessity of capacity-building components in system deployment, reinforcing the study's practical focus.

2.6 Excel

Excel is a spreadsheet-based software that is widely used in accounting and finance (Suryanti, Prabowo, Suyono, & Pratiwi, 2023). Its key features include formulas (such as SUM, IF, and VLOOKUP), Pivot Tables, Conditional Formatting, and Macros that enable users to process numerical data efficiently (Pajaria et al., 2024; Wibowo, 2021). In this study, Excel serves as the core tool to implement the Accounting Information System (AIS), allowing MSME owners to input transactions and automatically generate general ledgers, trial balances, income statements, cash flow, and inventory reports. The use of Excel aligns with the characteristics and needs of MSMEs, which often lack access to expensive accounting software and professional financial staff members.

Compared to manual recording or third-party apps, Excel offers low cost, high flexibility, user friendliness, and real-time reporting capability. However, it also has limitations, such as potential human error, limited data security, and scalability issues for growing enterprises. By integrating Excel into the AIS framework, this study offers a practical and affordable digital accounting solution tailored for MSMEs. This approach is consistent with the findings of Suryanti et al. (2023) and Nisa and Widodo (2024), who emphasized Excel's effectiveness in small-scale financial management. Thus, this study contributes to the literature by demonstrating how Excel can bridge the gap between traditional bookkeeping and digital financial reporting within the MSME context.

2.7 System Development Life Cycle (SDLC)

The System Development Life Cycle (SDLC) is a general and flexible framework used to design and develop information systems in a structured manner (Ahituv & Neumann, 1984). It encompasses several stages, including planning, feasibility analysis, system design, development, testing, implementation, and system maintenance. In this study, the SDLC was employed as a methodological foundation for developing a simple, Excel-based financial recording application tailored to the needs of grocery store owners. The use of SDLC ensures that the resulting system is not only functionally effective and user-friendly, but also adaptable to the limited digital literacy often found among MSME actors (Adhiyattunnisa, Wisna, & Asniar, 2024).

The integration of the SDLC into this research supports the practical implementation of Accounting Information System (AIS) principles through Excel, serving as a bridge between system design theory and the real-world needs of MSMEs. This synthesis demonstrates the study's position within the existing literature by linking system development methodology (SDLC), practical tools (Excel), and financial information systems (AIS) to empower MSMEs with accessible and affordable digital solutions (de Vicente Mohino, Bermejo Higuera, Bermejo Higuera, & Sicilia Montalvo, 2019).

3. Research Methodology

This study does not propose statistical hypotheses, as it is primarily applied research aimed at developing practical solutions. However, this study was guided by the following research question: "Can an Excel-based financial recording application improve the accuracy and ease of daily financial documentation for traditional grocery stores?" This research is an applied study based on a field survey of traditional grocery stores (toko kelontong) in the Rajabasa District, Bandar Lampung. The research approach combines both quantitative and qualitative methods to identify financial recording issues and design a solution in the form of a simple, efficient, and tailored Excel-based financial reporting application for Micro, Small, and Medium Enterprises (MSMEs).

Quantitative data were collected through structured questionnaires to capture common financial recording practices, challenges, and user familiarity with digital tools. Qualitative insights were gathered via interviews with store owners to understand user behavior, expectations, and the perceived

limitations of existing systems. The combination of both approaches allows for a comprehensive understanding of user needs and the contextual constraints of the targeted MSMEs. The findings from both data types informed the development of an Excel-based solution, which was designed iteratively and evaluated based on feedback from end-users to ensure usability, relevance, and practicality.

3.1 Population and Research Sample

3.1.1 Population

The population in this study comprised all grocery stores operating in the Rajabasa District of Bandar Lampung City. This district was chosen because of its high concentration of grocery stores and representation of typical micro and small-scale MSMEs. According to the Central Bureau of Statistics of Bandar Lampung City in 2022, the number of grocery stores in Rajabasa has fluctuated over the years, as shown in table below:

Table 1. Number of Grocery Stores in Rajabasa District (2019–2021)

Year	Number of Grocery Store
2019	363 units
2020	(data not available)
2021	278 units

Source: Central Bureau of Statistics of Bandar Lampung City, 2022

In addition to statistical data, this study uses field documentation, including daily transaction records, inventory logs, and other financial documents that illustrate the financial management conditions of the stores.

3.1.2 Sample and Sampling Technique

The sample was determined using non-probability sampling with a purposive sampling technique based on criteria that aligned with the research objectives.

Table 2. Sampling Criteria

No.	Sampling Criteria
1.	The grocery store is located in Rajabasa District.
2.	Does not use digital accounting applications.
3.	Still uses manual transaction recording methods.
4.	Willing to participate actively in the research process.

Additionally, one grocery store was selected as the main case study object to apply the financial reporting application directly and measure its implementation effectiveness.

The sample size was determined using the Slovin's formula:

$$n = \frac{N}{1 + (N \cdot e^2)}$$

With $N = 278$ and $e = 0.1$, the sample calculation is as follows:

$$n = \frac{278}{1 + 278 \times (0.1)^2} = \frac{278}{1 + 2,78} = \frac{278}{3,78} \approx 73,54 \Rightarrow s = 74$$

Among these, one store was selected as the main case study to directly implement the Excel-based financial recording application and assess its effectiveness.

Justification for Using a Single Case Study

This study employed a single-case study approach to explore financial recording practices in depth in a traditional grocery store. The selected stores reflect typical MSME characteristics in the Rajabasa District, such as manual bookkeeping and limited use of digital tools. According to Ridder (2017), case

studies are appropriate when a detailed contextual understanding is required. In addition, Mohajan (2018) emphasizes that a single case study helps to reveal complex patterns within a real-life setting.

Generalizability of Findings:

Although this study focused on a single store, the findings were not intended for statistical generalization. Instead, the goal was to achieve analytical generalizations. Gerring (2006) explains that analytical generalization enables researchers to apply insights from a case to similar contexts. Furthermore, Gustafsson (2017) notes that transferability can be achieved if the selected case shares key characteristics with a broader population of cases.

3.2 Types of Data

The types of data used in this study included:

- a. Quantitative data: Numerical data obtained from questionnaires and application testing were analyzed using SPSS.
- b. Qualitative data: Derived from interviews, documentation, field observations, and focus group discussions (FGD).

This study integrates the post-positivist paradigm for quantitative data and the constructivist paradigm for qualitative data (Risnita, Muhajirin, & Asrulla, 2024).

3.3 Data Sources

3.3.1 Primary Data

Primary data were directly collected through the following methods: documentation, questionnaires, in-depth interviews, field observations, and focus group discussions (FGD).

3.3.2 Secondary Data

Secondary data were obtained from BPS statistics, academic journals, MSME and micro-accounting reports, and relevant literature and theories.

3.4 Data Collection Techniques

- a. Documentation
Purpose: To collect supporting evidence, such as purchase receipts, manual cash books, and other financial transaction data. Execution: Conducted concurrently with interviews and observations with the store owner's consent.
- b. Questionnaire
Purpose: To gather quantitative data on financial recording practices and perceptions of Excel. Format: Combination of open and closed questions. Focus: Financial literacy, manual recording issues, and system expectations.
- c. In-depth Interviews
Purpose: To explore store owners' experiences, challenges, and needs regarding financial recording. Focus: Recording practices, accuracy issues, and expectations of system features.
- d. Field Observations
Purpose: To directly observe transaction recording, stock management, and workflows. Execution: Participative observation to identify informal accounting practices.
- e. Focus Group Discussion (FGD)
Purpose: To obtain insights from store owners and staff regarding the design of the Excel-based application. Execution: Small group discussions were conducted to collect user-driven feedback.

3.5 Devices and Applications Used

- a. Software
Excel 2021: Used to design the financial recording and reporting systems.
- b. Hardware
HP Laptop Specifications: Windows 11, Intel Core i3, 8GB RAM
- c. Key Features of the Designed Application: General journal entry input, Automated general ledger, trial balance, income statement, financial position, cash flow, Inventory card (stock control)

3.6 Data Analysis Methods

The data analysis combined descriptive qualitative and evaluative quantitative approaches, consisting of the following stages:

- a. Data Reduction Filtering relevant information from documentation, questionnaires, interviews, observations, and FGDs.
- b. Data Presentation Presenting the data in narrative, tabular, and graphical formats for easier interpretation.
- c. Data Analysis
The following steps were performed: evaluation of existing manual recording systems, implementation and testing of the Excel system, comparison and identification of pre and post-implementation results, and identification of benefits and challenges of the new system.
- d. Data Validation (Triangulation)
Cross-checking data from interviews, observations, documents and financial reports.
- e. Conclusion Drawing
Assessing the effectiveness of the application in solving financial recording problems and making recommendations for sustainable usage.

3.7 Supporting Theories

This study is supported by the following seven main theories.

- a. Accounting Information System (AIS) Theory
- b. Merchandising Business Theory
- c. Decision-Making Theory
- d. Contingency Theory
- e. Excel Theory
- f. System Development Life Cycle (SDLC)
- g. MSME Theory

4. Results and Discussion

4.1 General Overview of Current Financial Practices

4.1.1 Survey Findings on Manual Recording Practices

Based on questionnaires distributed to 74 traditional grocery stores in the Rajabasa District, it was revealed that 100% of the respondents still rely on manual bookkeeping. This result was drawn from responses to the technology utilization questionnaire, particularly item number 8, which indicated that none of the store owners used digital applications or software such as Excel to record their business transactions. These findings highlight the urgent need for a simple and accessible digital recording solution tailored to the operational realities of traditional grocery stores.

4.1.2 Sample Selection: Toko Ghanim

In response to these findings, Toko Ghanim managed by a married couple, Mrs. Rika Dewi and Mr. Untung Suroso was selected as the main sample in this development research. This store was chosen strategically because it reflects the general characteristics of grocery stores in Rajabasa and exhibits promising business potential, with an average daily gross turnover of approximately IDR 5,000,000.

4.1.3 Store Owner Profile and Adaptability

Despite having educational backgrounds unrelated to finance (food technology and nursing), both owners showed strong enthusiasm and adaptability during the training and mentoring processes. Following the implementation of the Excel-based financial application, they were able to manage daily transaction data more effectively and independently generate organized financial reports.

4.2 Operational Challenges and System Implementation

4.2.1 Identification of Operational Problems in Grocery Store Management

Traditional grocery stores face various operational challenges, particularly in financial record-keeping and inventory management. From 74 survey respondents, it was found that all store owners relied solely on handwritten records to track daily income and expenses without tracking individual stock movements. This practice leads to vulnerabilities, such as theft, stock discrepancies, and inaccurate financial records. In addition, the absence of regular monitoring or validation further contributes to data unreliability. Moreover, store owners tend to manage their finances independently, without delegating tasks to others. This limits their understanding of the overall financial condition of a business. The questionnaire results in point 8 confirmed that all respondents still use manual records and have not adopted digital accounting tools yet.

a. Difficulties in Manual Recording

The data show that 77% of respondents (57 out of 74) experienced difficulties with manual bookkeeping (point 10). Common issues include difficulty in tracking profit and loss, unstructured records, time-consuming processes, calculation errors, and the inability to clearly understand financial conditions. Additionally, manual records are prone to being lost, damaged, or forgotten, further worsening data inaccuracy and reducing the reliability of decision-making processes.

b. Low Adoption of Accounting Systems

All respondents (100%) admitted that they had not used any accounting systems or digital tools (point 9). They also lack integrated inventory management systems, resulting in low operational efficiency and poor monitoring of cash flows and inventory levels. This also limits financial forecasting, monthly evaluations, and the compilation of financial statements.

c. Reasons for Persisting with Manual Records

Most respondents continued using manual methods owing to habit and fear of making mistakes when using digital tools. Many were also unaware of how to use software such as Excel. These findings are based on open-ended responses to questions 7 and 8. In addition, some store owners felt that using a digital system might be too complex or unnecessary for the scale of their businesses.

d. Limited Time to Learn Digital Technology

Respondents also cited a lack of time as the main barrier to learning digital bookkeeping systems. Some participants felt that their businesses were too small to require such systems. These findings indicate that knowledge gaps, lack of access to relevant training, and limited confidence are the main obstacles to adopting digital financial systems.

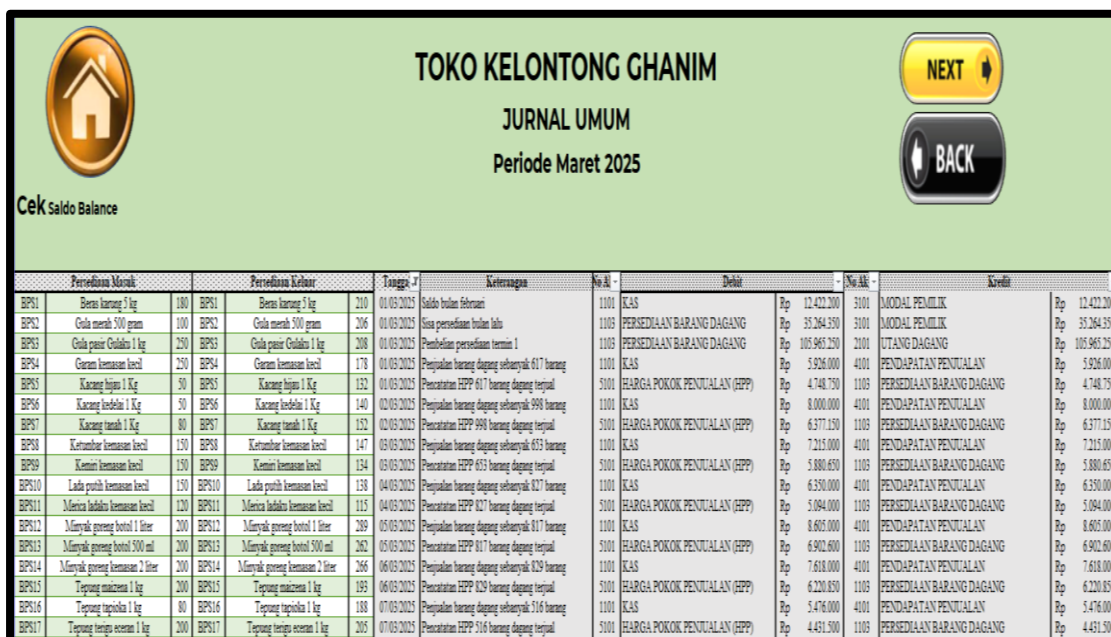
4.2.2 Design of Excel-Based Financial Report Application

The financial reporting application designed in this study aims to provide a practical, automated, and user-friendly recording tool for grocery-store owners. The design process began by identifying the basic needs for recording transactions and tracking inventory, as well as the need for structured financial reporting. This study also considered the time, resources, and knowledge constraints of MSME actors in managing finances.



Figure 1. Initial Display of Excel Application

Since 77% of store owners reported difficulties with manual bookkeeping (point 10), the demand for a more efficient tool is evident. The application was developed by combining field experience and prior implementation results by the researcher, including during a three-month internship at MSME Madu Al-Ghifary. Experiences from student organizations and learning from YouTube also enriched the app features. Users only need to enter transaction data once in the General Journal section. From there, various financial reports are automatically generated, including the General Ledger, Trial Balance, Income Statement, Statement of Financial Position, Cash Flow Statement, and Inventory Report. The image below displays the General Journal menu and input used for recording daily transactions.



Periodic Month	Periodic Year	Transaction Date	Transaction Description	Debit	Credit
BP01	Beras 1 kg	180	BP01 Beras 1 kg	210	Saldo bulat ke depan
BP02	Gula merah 500 gram	100	BP02 Gula merah 500 gram	206	01/03/2025 Saldo persediaan bulat lalu
BP03	Gula pasir 1 kg	250	BP03 Gula pasir 1 kg	208	01/03/2025 Pembelian persediaan terimin 1
BP04	Garam 1 kg	250	BP04 Garam 1 kg	178	01/03/2025 Pengeluaran barang dagang sebanyak 617 barang
BP05	Kacang hijau 1 kg	50	BP05 Kacang hijau 1 kg	132	01/03/2025 Pencatatan HPP 617 barang dagang terjual
BP06	Kacang kedelai 1 kg	50	BP06 Kacang kedelai 1 kg	140	02/03/2025 Pengeluaran barang dagang sebanyak 990 barang
BP07	Kacang tanah 1 kg	80	BP07 Kacang tanah 1 kg	132	02/03/2025 Pencatatan HPP 990 barang dagang terjual
BP08	Ketumbar 1 kg	150	BP08 Ketumbar 1 kg	147	03/03/2025 Pengeluaran barang dagang sebanyak 433 barang
BP09	Kumin 1 kg	150	BP09 Kumin 1 kg	134	03/03/2025 Pencatatan HPP 433 barang dagang terjual
BP010	Lada putih 1 kg	150	BP010 Lada putih 1 kg	138	04/03/2025 Pengeluaran barang dagang sebanyak 827 barang
BP011	Mentha 1 kg	120	BP011 Mentha 1 kg	115	04/03/2025 Pencatatan HPP 827 barang dagang terjual
BP012	Minyak goreng 1 liter	200	BP012 Minyak goreng 1 liter	289	05/03/2025 Pengeluaran barang dagang sebanyak 817 barang
BP013	Minyak goreng 500 ml	200	BP013 Minyak goreng 500 ml	262	05/03/2025 Pencatatan HPP 817 barang dagang terjual
BP014	Minyak goreng 2 liter	200	BP014 Minyak goreng 2 liter	266	06/03/2025 Pengeluaran barang dagang sebanyak 829 barang
BP015	Tepung maizena 1 kg	200	BP015 Tepung maizena 1 kg	193	06/03/2025 Pencatatan HPP 829 barang dagang terjual
BP016	Tepung tapioka 1 kg	80	BP016 Tepung tapioka 1 kg	188	07/03/2025 Pengeluaran barang dagang sebanyak 316 barang
BP017	Tepung terigu segitiga 1 kg	200	BP017 Tepung terigu segitiga 1 kg	205	07/03/2025 Pencatatan HPP 316 barang dagang terjual

Figure 2: General Journal Menu and Input Form Display

This automation feature reduces repeated data entry and human error, aligning with Questionnaire Point 18, where 100% of respondents expressed the need for automated reporting features. The application also provides control and accuracy benefits, ensuring that once transaction data are entered, they flow seamlessly across all related reports.

The following figures are examples of financial reports automatically generated by the application.



Kode Akun	Nama Akun	Tanggal	Transaksi	Ref	Debit	Kredit	Saldo
52	BEBAN SEWA TOKO	30/03/2025	Pembayaran sewa toko		Rp 1.500.000	Rp -	Rp 1.500.000
			Total		Rp 1.500.000	Rp -	Rp 1.500.000

Figure 3: Automatic General Ledger Display

This ledger is created directly from the transactions recorded in the General Journal



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Cek Saldo Saldo Balance

TOKO KELONTONG GHANIM


NERACA SALDO

Periode 31 Maret 2025

No. Akun	Nama Akun	Debit	Kredit
1101	KAS	Rp 77.526.850	Rp -
1102	PIUTANG DAGANG	Rp -	Rp -
1103	PERSEDIAAN BARANG DAGANG	Rp 69.734.850	Rp -
1104	BIAYA DIBAYAR DIMUKA	Rp -	Rp -
1105	PERLENGKAPAN	Rp -	Rp -
1201	PERALATAN TOKO	Rp 3.300.000	Rp -
1202	KENDARAAN	Rp 5.400.000	Rp -
1203	AKUMULASI PENYUSUTAN PERALATAN	Rp -	Rp 165.000
1204	AKUMULASI PENYUSUTAN KENDARAAN	Rp -	Rp 270.000
2101	UTANG DAGANG	Rp -	Rp 63.579.150
2102	UTANG BANK (JANGKA PENDEK)	Rp -	Rp -
2103	BEBAN YANG MASIH HARUS DIBAYAR	Rp -	Rp -
2201	UTANG BANK (JANGKA PANJANG)	Rp -	Rp -
3101	MODAL PEMILIK	Rp -	Rp 56.386.550
3102	PRIVE PEMILIK (PENGAMBILAN PRIBADI)	Rp -	Rp -
3103	LABA DITAHAN	Rp -	Rp -
4101	PENJUALAN	Rp -	Rp 220.246.000
4102	POTONGAN PENJUALAN	Rp -	Rp -
4103	PENDAPATAN LAIN-LAIN	Rp -	Rp -
5101	HARGA POKOK PENJUALAN (HPP)	Rp 177.460.000	Rp -
5102	RETUR PEMBELIAN	Rp -	Rp -
5103	POTONGAN PEMBELIAN	Rp -	Rp -
5201	BEBAN SEWA TOKO	Rp 1.500.000	Rp -
5202	BEBAN LISTRIK DAN AIR	Rp 150.000	Rp -
5203	BEBAN GAJI KARYAWAN	Rp 4.000.000	Rp -
5204	BEBAN TRANSPORTASI	Rp 150.000	Rp -
5205	BEBAN PERLENGKAPAN TOKO	Rp 10.000	Rp -
5206	BEBAN PENYUSUTAN PERALATAN	Rp 165.000	Rp -
5207	BEBAN PENYUSUTAN KENDARAAN	Rp 270.000	Rp -
5208	BEBAN IKLAN DAN PROMOSI	Rp -	Rp -
5209	BEBAN PAJAK	Rp 195.000	Rp -
5210	BEBAN KEBERSIHAN	Rp 20.000	Rp -
5211	BEBAN PERBAIKAN DAN PEMELIHARAAN	Rp 65.000	Rp -
5212	BEBAN LAIN-LAIN	Rp 700.000	Rp -
6101	PENDAPATAN BUNGA	Rp -	Rp -
6201	BEBAN BUNGA	Rp -	Rp -
Total		Rp 340.646.700	Rp 340.646.700

Figure 4: Trial Balance Display

The trial balance ensures that the total debits and credits across all accounts are balanced.



TOKO KELONTONG GHANIM

LABA RUGI

Periode 31 Maret 2025

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	Pendapatan:		
4101	PENJUALAN	Rp 220.246.000	
4102	POTONGAN PENJUALAN	Rp -	
Pendapatan Bersih			Rp 220.246.000
4103	PENDAPATAN LAIN-LAIN	Rp -	
Total Pendapatan			Rp 220.246.000
	Harga Pokok Penjualan (HPP):		
5101	HARGA POKOK PENJUALAN (HPP)	Rp 177.460.000	
Laba Kotor			Rp 42.786.000
	Beban Usaha:		
5201	BEBAN SEWA TOKO	Rp 1.500.000	
5202	BEBAN LISTRIK DAN AIR	Rp 150.000	
5203	BEBAN GAJI KARYAWAN	Rp 4.000.000	
5204	BEBAN TRANSPORTASI	Rp 150.000	
5205	BEBAN PERLENGKAPAN TOKO	Rp 10.000	
5206	BEBAN PENYUSUTAN PERALATAN	Rp 165.000	
5207	BEBAN PENYUSUTAN KENDARAAN	Rp 270.000	
5208	BEBAN IKLAN DAN PROMOSI	Rp -	
5209	BEBAN PAJAK	Rp 195.000	
5210	BEBAN KEBERSIHAN	Rp 20.000	
5211	BEBAN PERBAIKAN DAN PEMELIHARAAN	Rp 65.000	
5212	BEBAN LAIN-LAIN	Rp 700.000	
Total Beban Usaha			Rp 7.225.000
Laba Usaha			Rp 35.561.000
	Pendapatan/Beban Lain-Lain:		
6101	PENDAPATAN BUNGA	Rp -	
6201	BEBAN BUNGA	Rp -	
Total Pendapatan/Beban Lain-Lain			Rp -
Laba Sebelum Pajak			Rp 35.561.000
Laba Bersih Setelah Pajak			Rp 35.561.000

Figure 5: Automatic Income Statement Display

This report shows a business's profit or loss over a given period, including revenues and expenses.



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Cek Saldo Saldo Balance

TOKO KELONTONG GHANIM

LAPORAN POSISI KEUANGAN


Periode 31 Maret 2025

No. Akun	Nama Akun		
<u>ASET</u>			
ASET LANCAR			
1101	KAS	Rp	77.526.850
1102	PIUTANG DAGANG	Rp	-
1103	PERSEDIAAN BARANG DAGANG	Rp	69.734.850
1104	BIAYA DIBAYAR DIMUKA	Rp	-
1105	PERLENGKAPAN	Rp	-
TOTAL ASET LANCAR			Rp 147.261.700
ASET TIDAK LANCAR			
1201	PERALATAN TOKO	Rp	3.300.000
1202	KENDARAAN	Rp	5.400.000
1203	AKUMULASI PENYUSUTAN PERALATAN	Rp	165.000
1204	AKUMULASI PENYUSUTAN KENDARAAN	Rp	270.000
TOTAL ASET TIDAK LANCAR			Rp 8.265.000
TOTAL ASET			Rp 155.526.700
<u>LIABILITAS DAN EKUITAS</u>			
LIABILITAS JANGKA PENDEK			
2101	UTANG DAGANG	Rp	63.579.150
2102	UTANG BANK (JANGKA PENDEK)	Rp	-
2103	BEBAN YANG MASIH HARUS DIBAYAR	Rp	-
LIABILITAS JANGKA PANJANG			
2201	UTANG BANK (JANGKA PANJANG)	Rp	-
TOTAL LIABILITAS			Rp 63.579.150
EKUITAS			
3101	MODAL PEMILIK	Rp	56.386.550
3102	PRIVE PEMILIK (PENGAMBILAN PRIBADI)	Rp	-
3103	LABA DITAHAN	Rp	35.561.000
TOTAL EKUITAS			Rp 91.947.550
TOTAL LIABILITAS DAN EKUITAS			Rp 155.526.700

Figure 6: Automatic Statement of Financial Position Display

Presents a summary of assets, liabilities, and owners' equity.



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Cek Saldo Saldo Balance

TOKO KELONTONG GHANIM

ARUS KAS

Periode 31 Maret 2025

No. Akun	Nama Akun		
<u>AKTIVITAS OPERASI</u>			
	Laba Bersih	Rp	35.561.000
Penyesuaian: Beban Non-Kas			
	Penyusutan Peralatan	Rp	165.000
	Penyusutan Kendaraan	Rp	270.000
Perubahan Aset dan Liabilitas:			
	(Kenaikan)/Penurunan Piutang	Rp	-
	(Kenaikan)/Penurunan Persediaan	Rp	(69.734.850)
	Kenaikan/(Penurunan) Utang Dagang	Rp	63.579.150
	Pembelian Perlengkapan	Rp	-
	Arus Kas dari Aktivitas Operasi	Rp	29.840.300
<u>AKTIVITAS INVESTASI</u>			
	Pembelian Peralatan	Rp	(3.300.000)
	Pembelian Kendaraan	Rp	(5.400.000)
	Penjualan Aset Tetap	Rp	-
	Arus Kas dari Aktivitas Investasi	Rp	(8.700.000)
<u>AKTIVITAS PENDANAAN:</u>			
	Penerimaan Pinjaman	Rp	-
	Pembayaran Utang Bank	Rp	-
	Setoran Modal Pemilik	Rp	56.386.550
	Pengambilan Prive	Rp	-
	Arus Kas dari Aktivitas Pendanaan	Rp	56.386.550
<u>SALDO KAS AKHIR:</u>			
	Total Arus Kas Bersih	Rp	77.526.850
	Kas Awal	Rp	-
	Kas Akhir	Rp	77.526.850

Figure 7: Cash Flow Statement Display

Displays cash inflows and outflows automatically derived from recorded transactions.



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TOKO KELONTONG GHANIM

LAPORAN PERSEDIAAN

Periode 31 Maret 2025

STOK OPNAME PERSEDIAAN

No.	Kode Barang	Nama Barang	Persediaan 01 Februari 2025			Persediaan Masuk 01 Feb s/d 28 Feb 2025			Persediaan Keluar 01 Feb s/d 28 Feb 2025			Persediaan 28 Februari 2025		
			Jumlah	Harga	Harga Total	Jumlah	Harga	Harga Total	Jumlah	Harga	Harga Total	Jumlah	Harga	Harga Total
1	BPS1	Beras karung 5 kg	32	73.500	2.352.000	180	73.500	13.230.000	210	73.500	15.435.000	2	73.500	147.000
2	BPS2	Gula merah 500 gram	110	17.500	1.925.000	100	17.500	1.750.000	206	17.500	3.605.000	4	17.500	70.000
3	BPS3	Gula pasir Gulaku 1 kg	3	17.500	52.500	250	17.500	4.375.000	208	17.500	3.640.000	45	17.500	787.500
4	BPS4	Garam kemasan kecil	14	700	9.800	250	700	175.000	178	700	124.600	86	700	60.200
5	BPS5	Kacang hijau 1 Kg	85	25.000	2.125.000	50	25.000	1.250.000	132	25.000	3.300.000	3	25.000	75.000
6	BPS6	Kacang kedelai 1 Kg	95	15.000	1.425.000	50	15.000	750.000	140	15.000	2.100.000	5	15.000	75.000
7	BPS7	Kacang tanah 1 Kg	76	26.000	1.976.000	80	26.000	2.080.000	152	26.000	3.952.000	4	26.000	104.000
8	BPS8	Ketumbar kemasan kecil	16	1.500	24.000	150	1.500	225.000	147	1.500	220.500	19	1.500	28.500
9	BPS9	Kemiri kemasan kecil	13	2.500	32.500	150	2.500	375.000	134	2.500	335.000	29	2.500	72.500
10	BPS10	Lada putih kemasan kecil	11	3.500	38.500	150	3.500	525.000	138	3.500	483.000	23	3.500	80.500
11	BPS11	Merica ladaku kemasan kecil	5	1.000	5.000	120	1.000	120.000	115	1.000	115.000	10	1.000	10.000
12	BPS12	Minyak goreng botol 1 liter	95	21.300	2.023.500	200	21.300	4.260.000	289	21.300	6.155.700	6	21.300	127.800
13	BPS13	Minyak goreng botol 500 ml	66	10.000	660.000	200	10.000	2.000.000	262	10.000	2.620.000	4	10.000	40.000
14	BPS14	Minyak goreng kemasan 2 liter	68	40.800	2.774.400	200	40.800	8.160.000	266	40.800	10.852.800	2	40.800	81.600
15	BPS15	Tepung maizena 1 kg	9	12.000	108.000	200	12.000	2.400.000	193	12.000	2.316.000	16	12.000	192.000
16	BPS16	Tepung tapioka 1 kg	110	10.000	1.100.000	80	10.000	800.000	188	10.000	1.880.000	2	10.000	20.000
17	BPS17	Tepung terigu eceran 1 kg	7	15.000	105.000	200	15.000	3.000.000	205	15.000	3.075.000	2	15.000	30.000
18	BPS18	Tepung terigu Segitiga Biru 1 kg	2	15.200	30.400	250	15.200	3.800.000	218	15.200	3.313.600	34	15.200	516.800
19	BPS19	Telur ayam	90	28.000	2.520.000	150	28.000	4.200.000	236	28.000	6.608.000	4	28.000	112.000
20	BPS20	Bihun	50	4.000	200.000	120	4.000	480.000	166	4.000	664.000	4	4.000	16.000
21	BPS21	Mie kuning	95	4.500	427.500	180	4.500	810.000	273	4.500	1.228.500	2	4.500	9.000
22	BPS22	Minyak cup kecil	8	3.000	24.000	200	3.000	600.000	206	3.000	618.000	2	3.000	6.000

Figure 8: Inventory Report Display

It provides real-time inventory status and valuation. The application is designed with simple sheet-to-sheet navigation and intuitive color usage. Even users without accounting backgrounds can easily understand it, as supported by the survey results indicating a preference for easy-to-use tools. The interface uses formulas embedded in cells to automate calculations and generate visual reports that are easy to interpret. The accounts used in the application are compiled based on the questionnaire results (open question point 1), including Daily Sales, Merchandise Purchases, Customer Payments Received, Utility Expenses, Debt Payments to Suppliers, Rent, and Salaries.

The account categories included:

Assets

- 1101 Cash
- 1102 Accounts Receivable
- 1103 Merchandise Inventory
- 1104 Prepaid Expenses
- 1105 Supplies
- 1201 Equipment
- 1202 Vehicles
- 1203 Accumulated Depreciation - Equipment
- 1204 Accumulated Depreciation - Vehicles

Liabilities

- 2101 Accounts Payable
- 2102 Bank Loans (Short-Term)

2103 Accrued Expenses
2201 Bank Loans (Long-Term)

Equity

3101 Owner's Capital
3102 Owner's Drawings
3103 Retained Earnings

Revenue

4101 Sales
4102 Sales Discounts
4103 Other Income
6101 Interest Income

Expenses

5101 Cost of Goods Sold
5102 Purchase Returns
5103 Purchase Discounts
5201 Rent Expense
5202 Electricity and Water Expense
5203 Salary Expense
5204 Transportation Expense
5205 Supplies Expense
5206 Equipment Depreciation
5207 Vehicle Depreciation
5208 Advertising and Promotion Expense
5209 Tax Expense
5210 Cleaning Expense
5211 Repair and Maintenance Expense
5212 Miscellaneous Expenses
6201 Interest Expense

To provide a clearer overview of how the application works, the following figure illustrates the financial management process flow using an Excel-based application.

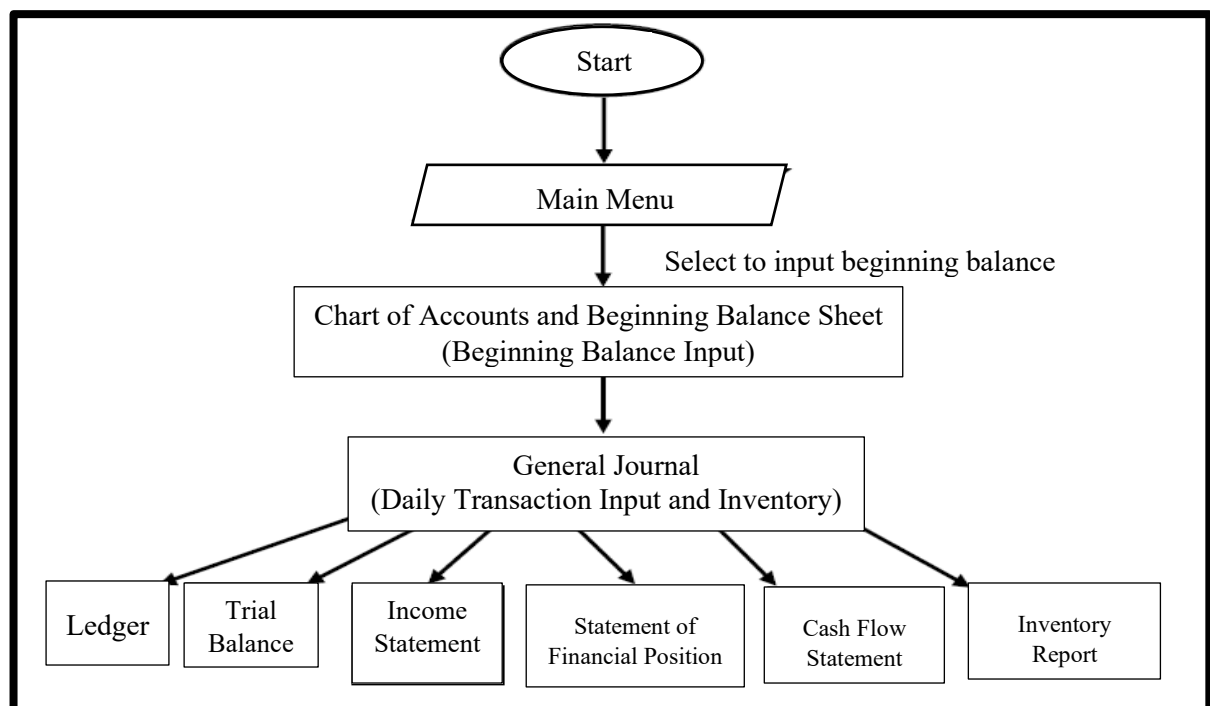


Figure 9: Process Flow Diagram of Store Financial Management Using Excel Application

This application encourages store owners to transition from error-prone manual records to a more efficient digital system. Excel was chosen because of its familiarity, offline usability, and no additional cost—features supported by the survey findings: 77% have difficulties with manual bookkeeping (point 10), 78% have trouble calculating profit/loss (point 12), 99% believe Excel increases efficiency (point 16), 88% are willing to try Excel (point 17), and 100% want automation features (point 18). Furthermore, the application allows store owners to professionally present their financial conditions when applying for funding, joining cooperatives, or participating in government assistance programs. It also promotes increased financial literacy among microentrepreneurs, enabling them to make better strategic decisions, avoid cash shortages, and plan their business operations with more precision.

4.2.3 Assistance and Education in Using the Application

- a. Survey Findings on Training Needs
Based on questionnaire point 15, 72 out of 74 respondents stated that they required training to use Excel in financial management. Therefore, a structured training program was conducted to enable store owners to operate the application independently and effectively.
- b. Assistance Methods
 1. Direct Training: Conducted at the store location, covering step-by-step guidance from data entry to report generation.
 2. Q&A Sessions: Provided opportunities for store owners to resolve their doubts directly with experts.
 3. Simulation with Real Data: Helped improve understanding and confidence through actual store transaction data. These simulations are crucial for bridging the gap between theory and practical usage.
- c. Evaluation
Post-training evaluation showed that the store owners could operate the application well, although some complex reporting features required further learning. The observations revealed significant improvements in data entry accuracy and time efficiency.
- d. Store Owners' Feedback
Mrs. Rika Dewi and Mr. Untung Suroso provided positive feedback. Although initially facing difficulties, they now find the system very helpful, simple, and it reduces the burden of manual recording. They appreciated the ability to monitor cash flows and inventories in real time. According to them, the automation feature provides great clarity in understanding their store's financial position. The evaluation questionnaire design was adapted from the research of Permatasari et al. (2024), who also found that Excel-based systems improved the clarity of financial conditions for MSME owners.
- e. Ensuring Sustainability of Use
 1. Regular Monitoring: To ensure that the application continues to be used.
 2. Application Updates: Easily modifiable as the store develops further.
 3. Ongoing Support: Open access to consultation so that the application can be continuously used optimally.

5. Conclusion

The findings of this study reveal that grocery stores in Rajabasa continue to face serious obstacles in managing their finances and recording inventory, with all respondents (100%) relying on manual bookkeeping methods. These challenges stem primarily from limited technological literacy, difficulties in tracking profits accurately, concerns about errors when using digital systems, and a general lack of time to learn more efficient and structured financial tools. These findings demonstrate the urgent need for accessible and easy-to-use financial solutions.

The implementation of the Excel-based financial reporting application proved to be a practical and effective response to these problems. The application simplifies the process of recording daily transactions and automatically generates key financial reports, such as the general ledger, trial balance, income statement, cash flow statement, financial position report, and an inventory report. With features that are automated and designed to reduce the likelihood of human error, this system empowers users, even those without an accounting background, to manage their business finances with greater accuracy.

and efficiency. The application's offline capability, user-friendly interface, and zero-cost operation make it highly accessible to micro and small business owners.

Moreover, structured training and mentoring conducted through hands-on sessions, question-and-answer discussions, and real-data simulations played a crucial role in building users' confidence and skills in operating the application. Follow-up efforts, such as periodic monitoring, customizable updates, and continuous consultation services, further ensure the sustainable use of this application. Feedback from the store owners involved in this study was overwhelmingly positive, highlighting the tool's impact on improving financial visibility, operational decision-making, and readiness for formal financing or partnership opportunities in the future. In conclusion, this study successfully achieved its objective by demonstrating that a simple, Excel-based financial reporting application can significantly improve the quality of financial management in traditional grocery stores. It offers a scalable, low-cost, and replicable model for enhancing digital financial literacy and operational efficiency among micro, small, and medium enterprises (MSMEs), particularly in underserved or technologically limited environments.

Theoretically, this study contributes to the development of Accounting Information Systems (AIS) by demonstrating how simple, spreadsheet-based tools can serve as effective financial solutions for MSMEs with limited resources. This reinforces the applicability of AIS principles in low-tech environments and highlights the importance of user-centric system design, training, and sustainability strategies to ensure long-term adoption among non-technical users. These findings have important practical implications. From a public policy perspective, promoting the use of simple, Excel-based applications can accelerate digitalization among MSMEs, especially in regions with limited access to advanced technology. Additionally, the system's flexibility makes it highly adaptable for use in other informal or traditional business sectors, such as street vendors, home-based food producers, small-scale service providers, and rural cooperatives, which often face similar financial management constraints as farmers.

5.1 Limitations and Future Research

This study had several limitations. First, the research object was limited to a single grocery store, Toko Ghanim, located in the Rajabasa District. Consequently, the findings may not be fully generalizable to all micro-enterprises in other regions with different business conditions. Second, although the Excel-based application developed in this study includes essential features for financial and inventory reporting, it was only tested in a small-scale business setting. However, its effectiveness in large-scale operations has not yet been evaluated. Third, user adoption and understanding of the technology remain heavily reliant on direct guidance. Therefore, the application may not be as effective if it is implemented without accompanying training or support.

For future research, it is recommended to expand the sample size by including more grocery stores from diverse areas to obtain more representative results. The Excel-based application can also be further developed by adding data security features, automatic financial chart analysis, and digital barcode integration. Additionally, long-term evaluations are needed to assess the sustainability of application usage after the mentoring phase ends, as well as its impact on business decision-making and financial growth among micro, small, and medium enterprises (MSMEs).

5.2 Acknowledgment

The author expresses sincere gratitude to the State Polytechnic of Lampung, particularly the Department of Tax Accounting, for the academic support provided throughout the research process. Special thanks are also extended to the owners of Toko Ghanim, Ms. Rika Dewi and Mr. Untung Suroso, for their willingness to collaborate in this study and for providing valuable data and time during the mentoring process. The author also appreciates the non-financial assistance from academic advisors and fellow students who contributed constructive feedback, encouragement, and support during the preparation of this paper. Finally, the author extends appreciation to all respondents who participated in the questionnaire, enabling the successful completion of this study.

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