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Analysis and Design of Cash Sales Accounting Information System at Alfamart Kembang Beji

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Abstract. The rapid economic growth in the era of globalization opens up opportunities for new businesses but also increases competition among companies. Every company must conduct its operational activities effectively and efficiently. The implementation of an appropriate accounting information system combined with the latest technology is essential to enhance competitiveness and operational efficiency. This study aims to analyze the current cash sales accounting information system and its alignment with the internal control system, as well as to design an alternative system for improvement. This research employs qualitative methods, with data obtained through literature studies, interviews, and direct observation. The analytical tools used include flowcharts, data flow diagrams (DFD), entity relationship diagrams (ERD), and normalization processes. The results of this study indicate that the cash sales accounting information system at Alfamart Kembang Beji has been well computerized; however, weaknesses remain in the separation of duties, document authorization, and document completeness. The finance department currently prepares the turnover report, which should be the responsibility of the accounting department. Therefore, the researcher proposes improvements through the development of flowcharts, DFDs, ERDs, database design, and various document input-output formats to strengthen the existing system.

Keywords: Accounting Information System, Cash Sales, DFD, ERD, Normalization

INTRODUCTION

The higher the level of competition, the faster economic development and technological advancement become, making the role of information critically important for company progress and sustainability. In the modern retail industry, characterized by thin profit margins and high transaction volumes, the efficiency and accuracy of operational systems directly impact business viability and competitive positioning (Susanto, 2017; Sutarbi, 2020; Syaharman, 2020; Yanto, 2016). It is therefore essential that the accounting information system ensures the quality of information produced to help management run the company more effectively (Sari, 2022; Scott, 2014; Setiyono, 2016; Sumarsan, 2020). According to Romney et al. (2021), an effective accounting information system must not only provide accurate and timely financial information but also support operational decision-making, ensure regulatory compliance, and facilitate internal control mechanisms (Rusmawan, 2019).

This research focuses on Alfamart, one of Indonesia's leading modern retail companies, which offers a variety of attractive shopping options combining convenience and high-quality goods at competitive prices (Fauzi et al., 2024; Kalumata et al., 2017; Weygandt et al., 2019). As of 2024, Alfamart operates over 17,813 outlets nationwide, making it one of the most extensive retail networks in Indonesia (Wanti et al., 2023). The selection of Alfamart as the research object is based on several strategic considerations: first, its significant market presence and operational scale make systemic improvements potentially impactful for the broader retail industry; second, as a publicly listed company (PT Sumber Alfaria Trijaya Tbk), it is subject to stringent corporate governance and financial reporting requirements that necessitate robust accounting information systems; third, preliminary observations indicated operational challenges representative of issues faced by modern retail businesses in general (Putra & Putra,

2018).

A common problem faced by PT Sumber Alfaria Trijaya Tbk (Alfamart) is the occurrence of employee errors in handling cash and non-cash transactions, both in data entry and transaction processing, which results in discrepancies in the store's daily income or deposit reports (Mulyadi, 2016). Specifically, based on preliminary interviews with store management, discrepancies between physical cash and system records occur approximately two to three times per week, with average variances ranging from IDR 50,000 to IDR 200,000 per incident. While these amounts may seem minimal individually, they accumulate into significant losses over time and, more importantly, indicate systemic weaknesses that could expose the company to greater operational and financial risks (Saputra et al., 2023). This case shows that the lack of adequate accounting information systems supporting revenue cycle activities can create significant financial problems for an organization (Siregar et al., 2023). Beyond the immediate financial implications, these discrepancies raise concerns about internal control effectiveness, employee accountability, data integrity, and the reliability of financial reporting—all critical for stakeholder confidence and regulatory compliance (Harto et al., 2023; Hastuti, 2019; Khakimi, 2024; Krismiaji, 2020).

Several previous studies have examined accounting information systems in retail contexts, but most focus either on theoretical frameworks or large-scale enterprise implementations (Sofyan et al., 2016). For instance, Anjani & Rasjid (2022) analyzed cash sales accounting information systems at Berkah Jaya store and found weaknesses in the separation of functions and incomplete sales documentation, but their study did not propose a comprehensive system redesign with detailed technical specifications. Similarly, Rahmadani et al. (2023) designed a website-based cash sales accounting information system for Perusahaan Umum Daerah Aman Mandiri, but their focus was on web development rather than addressing fundamental internal control issues. Meiryani & Reyhan (2021) analyzed sales and cash receipt accounting information systems to improve internal control at Bina Nusantara University; however, their context differed significantly from retail businesses.

The research gap addressed in this study is the absence of comprehensive, practical system redesign proposals for mid-sized retail outlets that combine internal control enhancement and operational efficiency through detailed technical specifications, including flowcharts, multi-level DFDs, ERDs, and normalized database designs. Most existing studies provide either high-level recommendations or focus on single aspects of the system, whereas this research offers an integrated approach addressing multiple dimensions simultaneously—separation of duties, document authorization, data flow optimization, database structure, and user interface design.

The novelty of this research lies in three aspects: (1) methodologically, it employs a comprehensive system analysis and design framework integrating both accounting principles and information systems engineering techniques, bridging two often-separated disciplines; (2) practically, it produces ready-to-implement technical specifications that can be directly adopted by Alfamart or adapted by similar retail businesses rather than merely identifying problems; and (3) theoretically, it contributes to the body of knowledge on accounting information systems in emerging retail markets by documenting specific challenges and solutions applicable to Indonesia's unique business environment, characterized by rapidly expanding retail networks, varying levels of employee digital literacy, and evolving regulatory

requirements.

This study aims to analyze the ongoing cash sales accounting information system and its conformity with the internal control system and design an alternative cash sales accounting information system. Specifically, the research objectives are to: (1) evaluate the current cash sales accounting information system at Alfamart Kembang Beji in terms of operational effectiveness, internal control adequacy, and alignment with established accounting standards and best practices; (2) identify and analyze specific weaknesses and gaps in the existing system, including but not limited to separation of duties, authorization mechanisms, document completeness, and data integrity controls; and (3) design and propose an improved cash sales accounting information system that addresses identified weaknesses through enhanced flowcharts, comprehensive DFDs, optimized ERDs, normalized database structures, and user-friendly input-output interfaces that strengthen internal controls while improving operational efficiency.

The significance of this research is multifaceted. Theoretically, it contributes to the accounting information systems literature by providing empirical evidence of system implementation challenges in Indonesia's retail sector and by demonstrating how integrated system analysis and design methodologies can resolve complex operational issues. Practically, the research delivers actionable recommendations and detailed technical specifications that Alfamart can implement to reduce cash discrepancies, strengthen internal controls, improve financial reporting accuracy, and enhance overall operational efficiency. For other retail businesses facing similar challenges, this study offers a replicable framework for system evaluation and improvement. From a policy perspective, the findings can inform industry best practices and potentially contribute to developing retail-specific accounting information system standards in Indonesia.

Furthermore, the urgency of this research is underscored by several critical factors: first, the increasing scrutiny from regulatory bodies and stakeholders regarding corporate governance and internal controls in publicly listed companies makes system improvements imperative for compliance and reputation management; second, the rapid digitalization of retail operations necessitates continuous system upgrades to maintain competitiveness and meet evolving customer expectations; third, the cumulative financial impact of ongoing cash discrepancies, though small individually, can significantly affect profitability in a low-margin retail business; and fourth, improving system reliability and control effectiveness directly enhances employee accountability and reduces fraud risk, thereby protecting company assets and reputation.

MATERIALS AND METHOD

The object of this research was the cash sales accounting information system data and related documents at Alfamart Kembang Beji, located at Jl. Kembang, Beji District, Beji Village, Depok City, West Java, 16421. The data used in this study consisted of qualitative data, namely descriptive data, opinions, and narratives, which were not measured in numerical form. The data sources were obtained through direct interviews with sales-related personnel at Alfamart Kembang Beji. The research applied descriptive analysis with stages of system analysis, evaluation, and system design.

The research employs a qualitative descriptive approach with the following detailed

methodology: (1) Literature review was conducted on accounting information systems, internal control frameworks (particularly COSO), retail operations management, and database design principles to establish theoretical foundations; (2) Semi-structured interviews were conducted with six key informants including the store head (1), assistant store head (1), finance staff (1), cashiers (2), and warehouse/receiving staff (1) to gather in-depth insights about current practices, challenges, and suggestions for improvement; (3) Direct observation was conducted over a two-week period covering different shifts and days to observe actual cash sales processes, document flows, and employee behaviors in real operational settings; (4) Document analysis examined samples of receipts, Cashier Deposit Proofs (BSK), Bank Deposit Proofs (BSB), and Turnover Reports (LO) to understand document completeness and authorization mechanisms; (5) System modeling tools including Microsoft Visio for flowcharts and DFDs, draw.io for ERD, and Microsoft Access for database design were utilized; (6) Analysis followed an iterative process where findings from each stage informed subsequent stages, with continuous validation through follow-up interviews and observations to ensure accuracy and completeness of understanding.

RESULTS AND DISCUSSION

The object of this research is the ongoing cash sales accounting information system data and related documents on Alfamart Kembang Beji. The parent company of Alfamart minimarket is PT Sumber Alfaria Trijaya Tbk. Djoko Susanto and his family started establishing the company in 1989. Currently, Alfamart has 17,813 operating outlets and 2,985 operating subsidiary outlets spread throughout the country.

One of Alfamart's outlets in Depok, West Java is Alfamart Kembang Beji. The Alfamart is located on Jalan Kembang, Beji, Depok, West Java 16421. Alfamart Kembang Beji began operating to meet the needs of the local community for daily products on April 21, 2005. This minimarket accommodates various needs needed by the community, including basic necessities, household furniture, cosmetics, and various other categories. Since its opening, Alfamart Kembang Beji has become one of the favorite shopping centers of locals due to its strategic location and excellent service

Alfamart Kembang Beji continues to innovate and improve the quality of service to meet consumer needs and satisfaction.

Company Vision and Mission

The vision implemented by PT Sumber Alfaria Trijaya Tbk is "To become a leading retail distribution network owned by the wider community, oriented towards empowering small entrepreneurs, meeting consumer needs and expectations, and being able to compete globally." The vision is achieved through various missions carried out by the company. PT Sumber Alfaria Trijaya Tbk has the following missions:

Providing satisfaction to consumers by focusing on superior quality products and services.

Always be the best in everything done and always uphold high business behavior/ethics.

Participate in building the country by fostering and developing entrepreneurial spirit and business partnerships.

Building a trusted, healthy and growing global organization that benefits consumers, suppliers, employees, shareholders and society at large.

Company Values

High integrity

Innovation for better progress

Highest quality and productivity

Teamwork

Consumer satisfaction through the best service

Organizational Structure

The organizational structure owned by Alfamart Kembang Beji has a line form where it is a form of organization that gives an overflow of authority from the leadership to subordinates vertically. The following is a description of the work of each part contained in the organizational structure of Alfamart Kembang Beji:

Kepala Toko (*Chief Of Store*)

Assistant *Chief Of Store*

Finance

Warehouse Parts

Receiving

Kasir (*Cashier*)

Implemented Cash Sales System

Related Parts in the Cash Sales System at Alfamart Kembang Beji

The related sections applied in the cash sales accounting information system at Alfamart Kembang Beji, are as follows:

Cashier

The cashier is responsible for serving consumers and receiving money from the cash payments of consumers

Head of Store

The store head is responsible for providing the initial balance to the cashier at the beginning of the work shift and equalizing the balance of the sales record with the physical money that has been received and transferring the cash to the head office.

Finance

The finance department is responsible for archiving all documents related to sales, creating Turnover Reports (LOs), creating cash receipt journals, as well as moving cash receipt journals into the ledger.

Documents Used

The documents used in the cash sales accounting information system at Alfamart Kembang Beji, are as follows:

Receipt

Proof of Cashier Deposit (BSK)

Proof of Bank Deposit (BSB)

Accounting Records Used

Sales Journal

These records are used by the finance department to record sales.

Cash Rp xxx

Sales Rp xxx

Generated Financial Statements

The financial statements generated in the cash sales accounting information system at Alfamart Kembang Beji are as follows:

Turnover Report (LO)

Turnover Report A turnover report created per month by the finance department after making multiple deposits to the head office based on money received every day for a month.

Cash Sales Accounting Information System Procedures Applied to Alfamart Kembang Beji

The following is the procedure for the cash sales accounting information system applied to Alfamart Kembang Beji.

Table 1. Procedures of Applied Cash Sales Accounting Information System

Part	Work
Cashier	a. Receive consumers and goods brought by consumers. b. Provide greetings and information related to the promo to consumers. c. Operate a computer and scan the *barcode* of goods. d. Receive cash from consumers. e. Printing 1-sheet receipts for consumers. f. After the shift ends, the cashier calculates the money from the cash sale g. Make a Cashier Deposit Proof (BSK) based on 2 pieces of cash sales data. h. Deposit cash and BSK 1 to the store manager. i. Send BSK 2 to the finance department.
Head of Shop	a. Receive and check BSK 1 along with cash from the cashier. b. Equalize the balance of the sales record with the cash provided by the cashier. If appropriate, cash will be deposited at the head office. On the other hand, if it is not suitable, it will ask the cashier concerned for a replacement of the shortcoming. c. Received 3 pieces of Bank Deposit Proof (BSB) from the Bank. d. Send BSB 2 to the head office. e. Send BSB 1 to the finance department. f. Archive BSK 1 and BSB 3 permanently based on date. g. Receiving LO from finance h. Deposit the Turnover Report to the head office.
Finance	a. Received BSB 1 from the shop head. b. Receive BSK 2 from the cashier. c. Journaling and posting journals into the ledger. d. Creating a Turnover Report (LO) e. Depositing the LO to the shopmaster f. Permanently archiving BSB 1 and BSK 2 by date.

Source: Head of Alfamart Kembang Beji Store

1. Flowchart of Cash Sales Accounting Information System Applied to Alfamart Kembang Beji

The following is a flowchart of the cash sales accounting information system

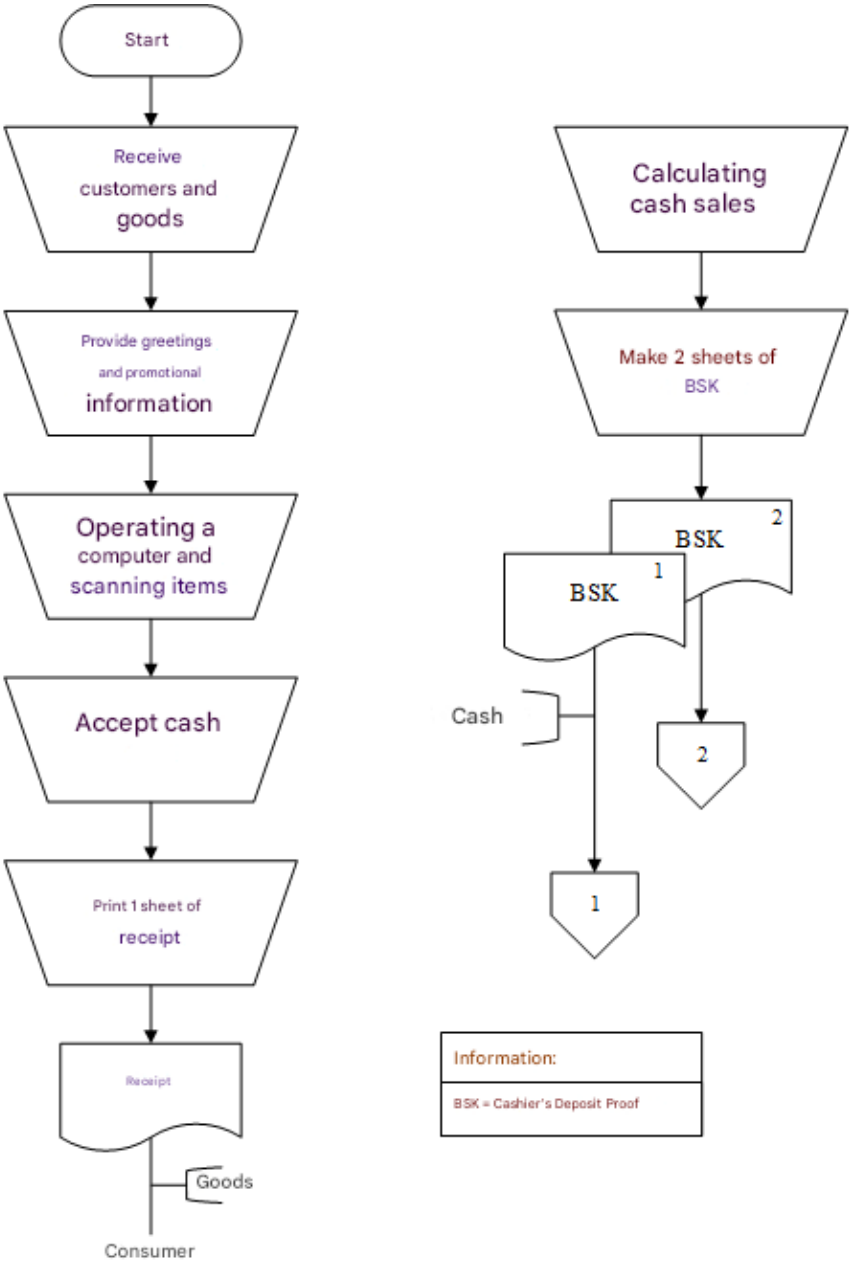

Figure 1. Applied Cashier Section Flow Chart
Source: Head of Alfamart Kembang Beji Store

The following is a flow chart of the cash sales accounting information system applied to Alfamart Kembang Beji as seen in Figure 1.3.

The analysis of the internal control system in the Alfamart Kembang Beji cash sales accounting information system is as follows:

Control Environment

The control environment is the basis for all other internal control components, providing discipline and structure.

Management standards, namely managers must be responsible for compiling guidelines for all members in the form of a company code of ethics and upholding employee justice.

Integrity, that is, managers must be able to create a healthy organizational culture and company ethical values.

Alfamart Kembang Beji sets employee behavior standards such as the cashier must apply 3S (smile, greeting, greeting) when consumers enter the store, providing information related to applicable promos, and asking consumers about shopping bags.

Competence, namely the recruitment of competent employees according to their fields, so that the company's operations run well.

Alfamart Kembang Beji has implemented its commitment to competence well, because Alfamart Kembang Beji sets the criteria for accepted employees such as in the recruitment of cashier who must be proficient in using computer applications and have experience first.

Organizational structure, which is an overview of the division of authority and responsibility of each member of the organization to achieve the company's goals.

Alfamart Kembang Beji does not have a clear organizational structure This is shown to the store manager who still has responsibility for checking the balance of sales records on the computer with cash provided by the cashier and the finance department who is responsible for making a turnover report every month.

Human resource policies and practices, namely in the form of employee recruitment, employee training, employee performance evaluation, employee promotion, and others.

Alfamart Kembang Beji has established a training program for employees. This proves that Alfamart Kembang Beji pays attention to the development of human resources and employees.

Control Activities

Control activities aim to measure and evaluate performance against the standards that have been set.

Granting authorization for transactions, that is, certain employees are authorized to carry out the activities of a transaction.

which is set by management to protect the company's assets and records such as physical security.

The separation of duties and responsibilities, i.e. authority and responsibilities, must be clearly defined for each employee.

Information and Communication

Information and communication are the main objectives of an accounting information system, which is to understand how transactions are initiated, data is obtained, archives are accessed and updated, data is processed, and information is reported.

Alfamart Kembang Beji shows that the information on cash sales has been conveyed well, this is shown by the finance department being able to find out cash sales data from the cashier and store head. So there is no miscommunication between the cashier, the head of the store, and the finance department.

Monitoring

Monitoring is the process of determining the quality of internal control performance around the clock.

Area Managers and store heads routinely conduct monitoring to evaluate the performance of employees. Alfamart Kembang Beji also installed CCTV that can help monitor activities in the store or around the store.

Flowchart of Proposed Cash Sales Accounting Information System in Accordance with Internal Control System

Proposed Accounting Records in Accordance with the Internal Control System for Cash Sales at Alfamart Kembang Beji

The records proposed in the cash sales accounting information system at Alfamart Kembang Beji are as follows:

Daily Recap Notes

This record is proposed for the finance department as proof of having checked the BSK.

Proposed Cash Sales Accounting Information System Procedure in Accordance with the Internal Control System for Alfamart Kembang Beji

The procedure for the proposed cash sales accounting information system in accordance with the internal control system for Alfamart Kembang Beji is in Table 4.2 as follows:

Table 2. Proposed Cash Sales Accounting Information System Procedures in Accordance with Internal Control System

Part	Work
Cashier	a. Receive consumers and goods brought by consumers. b. Provide greetings and information related to the promo to consumers. c. Operate a computer and scan the *barcode* of goods. d. Receive cash from consumers e. Printed 3 sales receipts. f. Provide 1-sheet receipts to consumers. g. Calculates the money from cash sales that is at the cash register when the shift ends.

Table 3. Proposed Cash Sales Accounting Information System Procedures in Accordance with Internal Control System (Advanced)

Part	Work
Cashier	h. Make a Cashier Deposit Proof (BSK) based on 2 pieces of cash sales data i. Deposit money, BSK 2 sheets and Receipt 3 to the finance department j. Permanently archive Receipt 2 by date.
Finance	a. Received money, BSK 2 sheets and Receipt 3 from the cashier. b. Check BSK 2 and at the same time equalize the balance from the sales record on the computer with the cash given by the cashier. If appropriate, BSK 2 will be authorized and cash deposited at the head office. If it is not suitable, it will ask the Cashier concerned for a replacement of the shortfall. c. Received 3 sheets of Bank Deposit Proof (BSB) from the bank. d. Send BSB 2 to the head office. e. Submit BSB 3 and BSK 2 to the accounting department. f. Archive BSK 1, BSB 1, and Receipt 3 permanently based on date.

Table 4. Proposed Cash Sales Accounting Information System Procedures in

Accordance with the Internal Control System (Advanced)

Part	Work
Accountancy	Received BSB 3, and BSK 2 from the finance department. Matching the documents, if they don't match they will be reverted to the previous section. Conduct journaling as well as posting journals into the ledger and authorize all related documents. Create a Turnover Report (LO). Provide Turnover Reports to the head office every month. Permanently archiving BSB 3 and BSK 2 by date.

Source: Data processed, 2024

1.Proposed Cash Sales Accounting Information System Flowchart

The following is a flowchart of the proposed cash sales accounting information system in accordance with the internal control system seen in Figure 2.

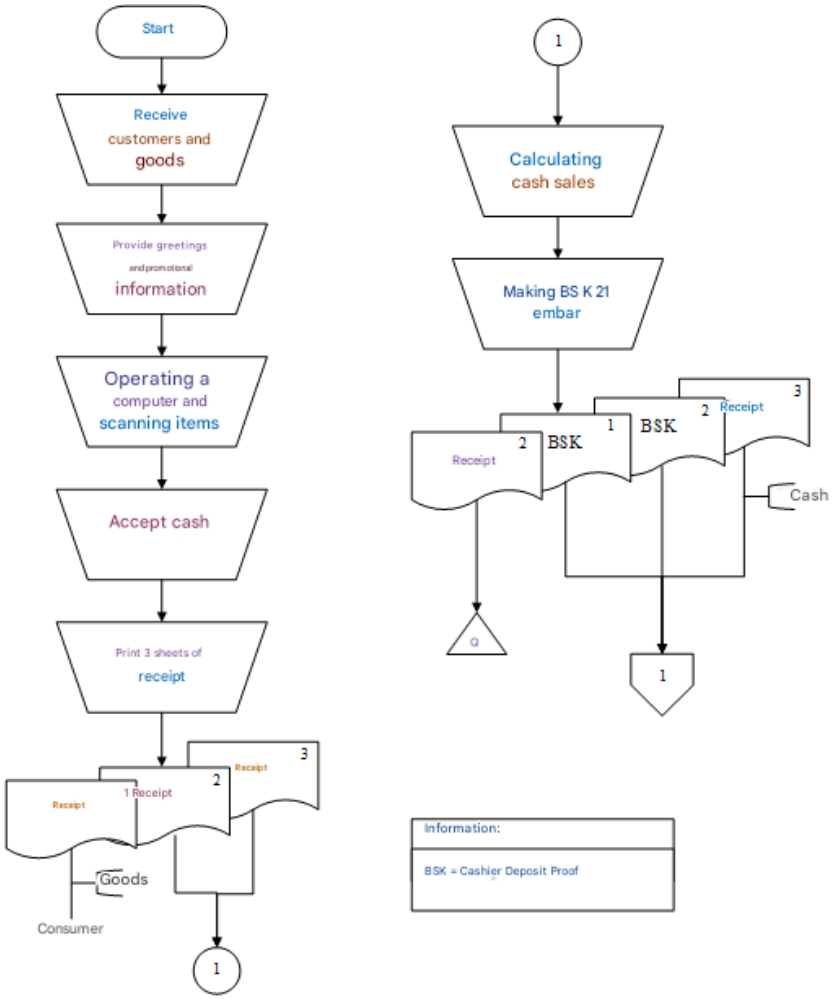

Figure 2. Flow Chart of Proposed Cashier Parts According to Internal Control System

Source: Data processed, 2024

The design of the proposed cash sales accounting information system data flow diagram is in accordance with the following internal control system:

1. Cash Sales Context Diagram

The following is a context diagram of the sales system

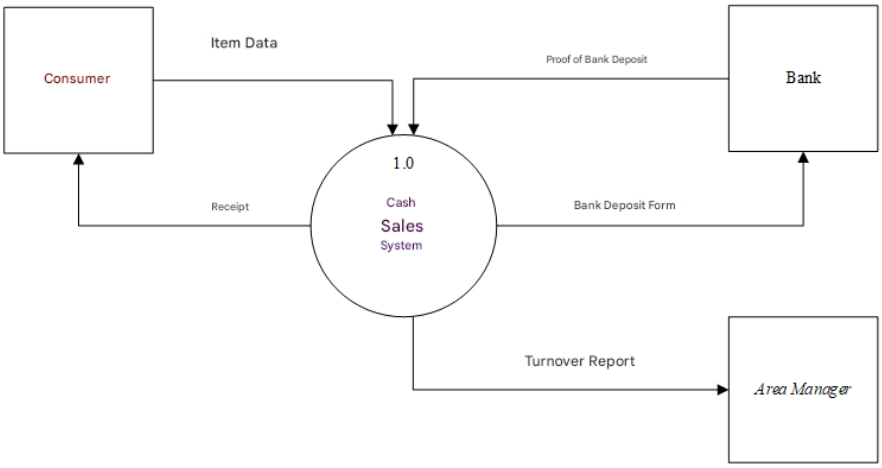

Figure 3. Context Diagram of the Proposed Cash Sales System in Accordance with the Internal Control System

Source: Data processed, 2024

Based on Figure 3, the cash sales system starts from the cashier accepting consumers who buy goods and the goods data is processed into the cash sales system and then generating sales receipts that are given to customers. After that, the Sales Receipt is used to make a Cashier Proof of Deposit (BSK), the system provides a bank deposit form to transfer daily sales results to the head office and receive a Proof of Deposit from the Bank. BSK and BS are used to make daily record records, after sales are processed the system generates a Turnover Report (LO) to report to the Area Manager. In the cash sales system, there are 3 processes, namely making sales, making daily record records and making turnover reports.

2.Cash Sales Level 0 Chart

The following is a level 0 diagram of the sales system

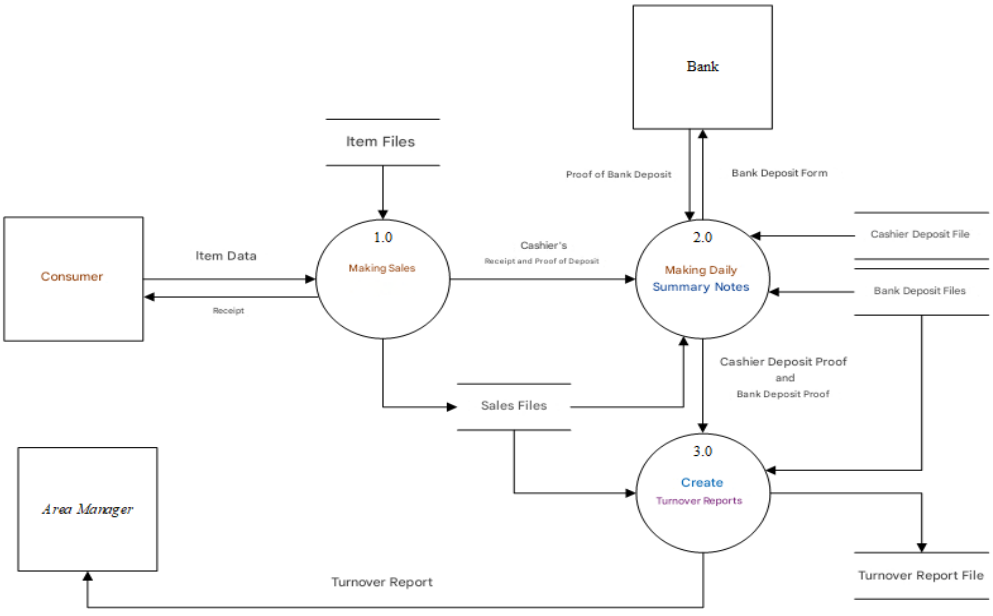

Figure 4. Level 0 Diagram of the Proposed Cash Sales System in Accordance with the Internal Control System

Source: Data processed, 2024

Based on Figure 4, the first process is to make a sale, where the cashier part accepts

consumers who buy goods so as to input data on goods. The system processes the data of goods and requires the Goods Files which will generate the Sales Files. The documents produced are receipts given to consumers and subsequent processes.

The second process is to receive the Cashier Receipt and Proof of Deposit (BSK) from the previous process and receive the Bank Deposit Proof (BSB) from the bank. The system creates a Daily Summary Record, this process requires Sales Files, Cashier Deposit Files and Bank Deposit Files.

The third process is the creation of a report, the system receives the Cashier Proof of Deposit (BSK) and the Bank Deposit Proof (BSB) from the previous process. Next, the system inputs sales data from the Sales File and bank deposit data from the Bank Deposit File. Then the resulting file is the Turnover Report File and the resulting document is the Turnover Report (LO). This Turnover Report (LO) will be given to the Area Manager.

Level 1 Diagram of Process 1 Cash Sales

The following is a diagram of level 1 process 1 of the sales system

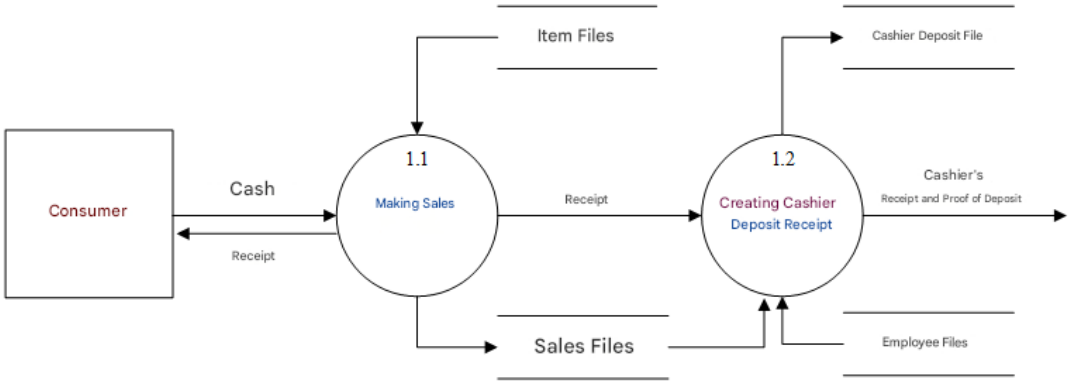

Figure 5. Level 1 Diagram of Process 1 Proposed Cash Sales System in Accordance with Internal Control System

Source: Data processed, 2024

Based on Figure 5, the sales process requires the Goods File to produce the Sales File and the Receipt document to be given to the consumer and to be used by the advanced process, namely making a Cashier Deposit Proof (BSK) which requires input from the Employee File, Sales File and will produce a Cashier Deposit File. Proof of Cashier Deposit (BSK) will be used for the next process.

Level 1 Diagram of Process 2 Cash Sales

The following is a diagram of level 1 process 2 of the sales system

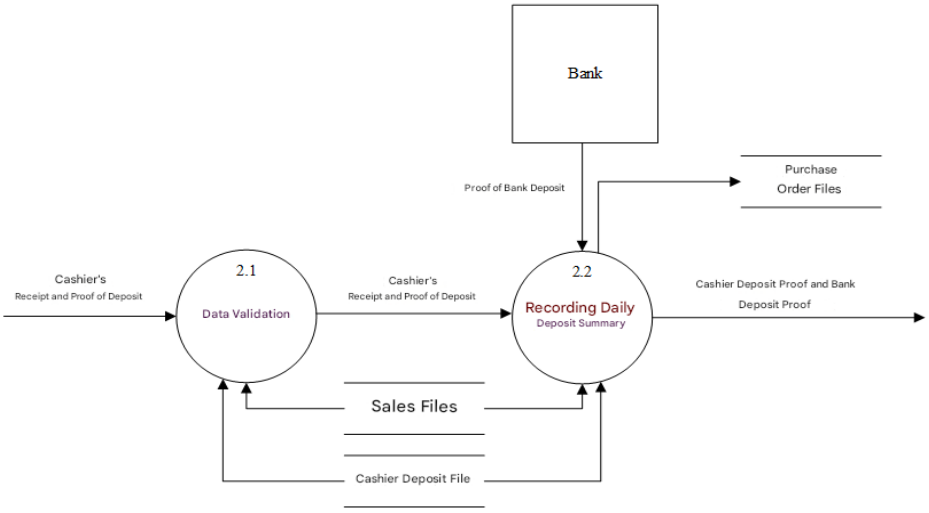

Figure 6. Level 1 Diagram of Process 2 Proposed Cash Sales System in Accordance with Internal Control System

Source: Data processed, 2024

Based on Figure 6 validation of data that requires input from the Cashier Deposit File and Sales File, after that the process records the daily data record that requires input from the Sales File and Cashier Deposit File, then it will generate a Bank Deposit File that will be used by the next process.

Level 1 Diagram Process 3 Cash Sales

The following is a level 1 diagram of the sales system's 2 process

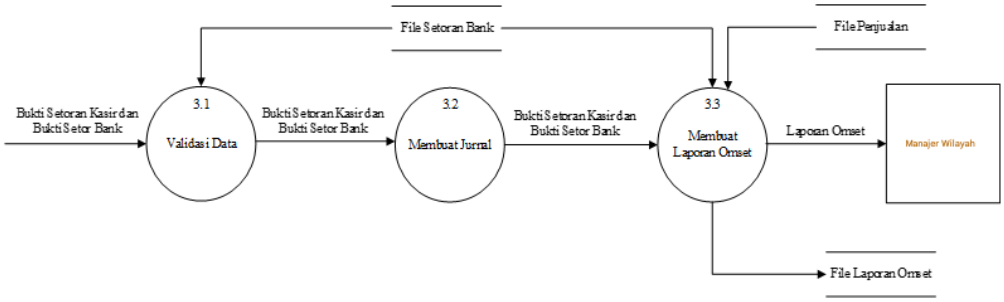

Figure 7. Level 1 Diagram of Process 3 Proposed Cash Sales System According to Internal Control System

Source: Data processed, 2024

Based on Figure 7, the system receives the Cashier's Proof of Deposit (BSK) and Bank Deposit Proof (BSB) from the previous process. Validate data that requires a Bank Deposit File, then the system requires a Cashier Deposit Proof (BSK) and Bank Deposit Proof (BSB) to be used to make a Turnover Report (LO). The Turnover Report (LO) requires input from the Bank Deposit File and Sales File which will then generate a Turnover Report (LO) which will be sent to *the Area Manager*.

***Entity Relationship Diagram* (ERD) for Proposed Cash Sales in Accordance with Internal**

Control System

The following is *an entity relationship diagram* (ERD) of the proposed sales system in accordance with the internal control system

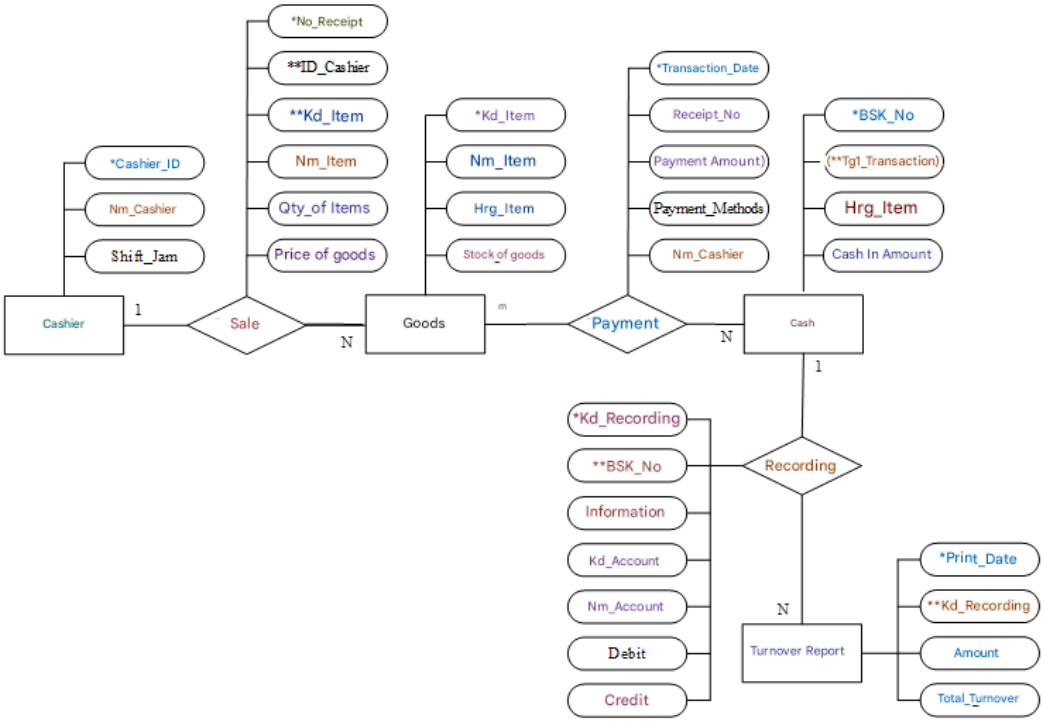

Figure 8. Proposed Cash Selling System ERD Conforms to Internal Control System

Source: Data processed, 2024

Based on Figure 8 that the Cashier entity is related to the goods entity, the relationship between the two entities is named "Sales". The cardinality of the relationship is one-to-many (1:N). Only one cashier is on guard at each shift to sell various types of goods. An item entity is related to a cash entity. The relationship between these two entities is named "Payment". The cardinality of this relationship is many-to-many (M:N), because one or more types of goods can be sold in many transactions. Therefore, cash receives many payment transactions from various sales of goods. Cash entities are related to turnover reporting entities. The relationship between these two entities is named "Record". The cardinality of this relationship is many-to-many (1:N), because one turnover report can record one or more cash transactions.

Normalization for Proposed Cash Sales in Accordance with the Internal Control System

The process of organizing files to eliminate this repetitive group of elements is called normalization. The following are the stages of normalization carried out.

Abnormal Shape (UNF)

This form is a collection of data that will be stored, there is no need to follow a certain format, it can be incomplete or duplicated and the data is collected as it is according to the time of input

First Normal Form (1NF)

The first normal form is characterized by atomic field data and complements the existing

attributes/fields. The first-level normalization of the cashier's name attribute is not yet atomic so it is changed to Nm_Depan, Nm_Belakang to be atomic. Second Normal Form (2NF)

The form of data that has met the criteria for the first normal form. The non-key attribute must be functionally dependent on the primary key so that to form a second normal, the field key must be determined. The field key must be unique and can represent other attributes of which it is a member.

Third Normal Form (3NF)

The third normal form describes the relationships between tables that must be in the second normal form, each column that is not a primary key has no transitive dependence on the primary key. The third normal form of the proposed cash sales data draft for Alfamart Kembang Beji

Proposed Cash Sales Database Design

The database of the accounting information system for cash sales is designed to consist of database design tables, namely cashier tables and goods tables. The following are the tables of the proposed database design attached to Table 4 and Table 5:

Table 5. Cashier Table

No	Field Name	Data Type	Field Size/ Format	Information
1	*ID_Kasir	Short Text	20	Cashier ID
2	Nm_Kasir	Short Text	20	Cashier Name
3	Shift_Jam	Number	10	Shift Jam

Source: Data processed, 2024

Table 6. Table of Contents

No	Field Name	Data Type	Field Size/ Format	Information
1	*Kd_Barang	Short Text	20	Item Code
2	Nm_Barang	Short Text	20	Item Name
3	Hrg_Barang	Currency	"Rp"#,###.00	Item Prices
4	Stok_Barang	Number	10	Stock Goods

Source: Data processed, 2024

The database of the accounting information system for cash sales is designed to consist of database design tables, namely sales tables and payment tables. The following are the tables of the proposed database design attached to Table 6 and Table 7:

Table 7. Sales Table

No	Field Name	Data Type	Field Size/ Format	Information
1	*No_Struk	Short Text	15	Receipt Number
2	**ID_Kasir	Short Text	15	Cashier ID
3	**Kd_Barang	Short Text	20	Item Code
4	Nm_Barang	Short Text	20	Item Name
5	Jmlh_Barang	Number	10	Number of Items
6	Hrg_Satuan	Currency	"Rp"#,###.00	Unit Price

Source: Data processed, 2024

Table 8. Payment Table

No	Field Name	Data Type	Field Size/ Format	Information
1	*Tgl_Transaksi	Date/Time	Short Date	Transaction Date
2	**No_Struk	Short Text	20	Receipt Number
3	Jmlh_Pembayaran	Currency	"Rp"#,###.00	Amount of Cash Coming In
4	Payment_Methode	Short Text	20	Payment Method
5	Nm_Kasir	Short Text	20	Cashier Name

Source: Data processed, 2024

The database of the accounting information system for cash sales is designed to consist of database design tables, namely cash tables and record tables. The following are the tables of the proposed database design attached to Table 8 and Table 9:

Table 9. Cash Table

No	Field Name	Data Type	Field Size/ Format	Information
1	*No_BSK	Short Text	20	BSK Number
2	**Tgl_Transaksi	Date/Time	Short Date	Transaction Date
3	Hrg_barang	Currency	"Rp"#,###.00	Item Prices
4	Jmlh_Kas_Masuk	Currency	"Rp"#,###.00	Amount of Cash Coming In

Source: Data processed, 2024

Table 10. Recording Table

No	Field Name	Data Type	Field Size/ Format	Information
1	*Kd_Pencatatan	Short Text	20	Logging Codes
2	**No_BSK	Short Text	20	BSK Number
3	Information	Short Text	35	Information
4	Kd_Akun	Short Text	10	Account Code
5	Nm_Akun	Short Text	20	Account Name
6	Debit	Currency	"Rp"#,###.00	Debit
7	Credit	Currency	"Rp"#,###.00	Credit
8	Total_Kas_Masuk	Currency	"Rp"#,###.00	Total Cash Inflow

Source: Data processed, 2024

The database of the accounting information system for cash sales is designed to be a table of turnover reports. The following is a table of proposed database designs attached to Table 10:

Table 11. Turnover Report Table

No	Field Name	Data Type	Field Size/Format	Information
1	*Tgl_Cetak	Date/Time	Short Date	Print Date
2	*Kd_Pencatatan	Short Text	20	Logging Codes
3	Sum	Currency	"Rp"#,###.01	Sum
5	Total_Omset	Currency	"Rp"#,###.00	Total Turnover

Source: Data processed, 2024

CONCLUSION

The study on Alfamart Kembang Beji concluded that its computerized cash sales accounting information system functioned effectively overall, though certain weaknesses remained in duty separation, document authorization, and document completeness. These findings aligned with those of Anjani and Rasyid (2022), who also identified similar internal control issues in retail accounting systems. Specifically, the study observed that the finance department prepared turnover reports that should have been the responsibility of the accounting department, indicating a lack of proper role segregation. To address these weaknesses, the researcher proposed design alternatives incorporating flowcharts, data flow diagrams (DFDs), entity-relationship diagrams (ERDs), database structures, and improved input-output document designs to strengthen internal control compliance. Future research should focus on testing these proposed system designs through implementation studies across multiple retail outlets to evaluate their effectiveness in enhancing operational control and data accuracy.

REFERENCES

Anjani, A. A., & Rasjid, H. (2022). Analisis Perancangan Sistem Informasi Akuntansi Penjualan Tunai Pada Toko Berkah Jaya. Jurnal Syntax Admiration. 3(4).

Fauzi, G. A., Hartanto, M. A., Mudzaqy, A., & Hamonangan, B. R. (2024). Pengaruh Manajemen Mutu pada Efisiensi Operasional Layanan Bus Rapid Transit (BRT) di Jakarta. Jurnal Ilmu Teknik. 1(4), 26-31.

Harto, B., Rukmana, A. Y., Subekti, R., Tahir, R., Waty, E., Situru, A. C., & Sepriano. (2023). Transformasi Bisnis di Era Digital (Teknologi Informasi dalam Mendukung Transformasi Bisnis di Era Digital). Edisi Pertama. Bandung: Sonpedia Publishing.

Hastuti, P. (2019). Analisis Kualitas Pelayanan pada Alfamart (Studi Kasus pada Alfamart Kawasan Marpoyan Kota Pekanbaru). Skripsi. Riau: Program Sarjana Strata Satu Universitas Islam Riau.

Kalumata, N., Nangoi, G. B., & Lambey, R. (2017). Evaluasi Pengendalian Internal Sistem Informasi Akuntansi Penjualan dan Penerimaan Kas pada PT Hasjrat Abadi Cabang Malalayang Manado. Going Concern: Jurnal Riset Akuntansi. 12(2), 1205-1215.

Khakimi, M. (2024). Sistem Informasi Akuntansi Pembelian dan Penjualan Barang pada Toko Pasific Cell. Jurnal Ilmiah Sistem Informasi (JUSI). 3(1), 1-8.

Krismiaji. (2020). Sistem Informasi Akuntansi. Edisi Kelima. Yogyakarta: UPP STIM YKPN.

Meiryani, & Reyhan. (2021). Analysis of Accounting Information Systems Sales And Cash Receipts to Improve Internal Control. Bina Nusantara University. 8(2), 73-81.

Mulyadi. (2016). Sistem Akuntansi. Edisi 4. Jakarta: Salemba Empat.

Putra, D. W. T., & Putra, J. J. (2018). Perancangan Sistem Informasi Pencarian Lowongan Pekerjaan. Jurnal TEKNOIF. 6(1).

Rahmadani, Karamoy, H., & Datu, C. (2023). Perancangan Sistem Informasi Akuntansi Penjualan Tunai Berbasis Website pada Perusahaan Umum Daerah Aman Mandiri Kota Tidore Kepulauan. Going Concern: Jurnal Riset Akuntansi. 18(1), 11-23.

Romney, M. B., Steinbart, P. J., Summers, S. L., & Wood, D. A. (2021). Accounting Information Systems. Fifteen Edition. United Kingdom: Pearson Education Limited.

Rusmawan, U. (2019). Teknik Penulisan Tugas Akhir dan Skripsi Pemrograman. Jakarta: Alex Media Komputindo.

Saputra, A., Nusantoro, H. J., & Kurniawan, A. (2023). Analisis Peranan Sistem Informasi Akuntansi Pembelian Tunai dan Penjualan Tunai dalam Pengendalian Persediaan Barang Dagang pada Toko Salah Parkir Metro. Expensive Jurnal Akuntansi. 2(1), 83-95.

Sari, V. W. (2022). Analysis of Accounting Information Systems of Cash Receipts and Cash Distributions At UD. AB Bakery Tebing Tinggi. International Journal on Social Science. 12(3), 122-128.

Scott, J. (2014). Sistem Pengendalian Intern. Edisi Keenam. Yogyakarta: Sekolah Tinggi Ilmu YKPN.

Setiyono, J. (2016). Analisis Teks dan Konteks pada Iklan Operator Seluler (Xl dengan Kartu As). Jurnal Pedagogi. 5(2), 297-310.

Siregar, S., Nurwani, & Harmain, H. (2023). Analysis of Accounting Information Systems of Cash Receipts. Indonesian Interdisciplinary Journal of Sharia Economics. 6(2), 1122-1136.

Sofyan, A., Gustomi, L., & Fitrianto, S. (2016). Perancangan Sistem Informasi Perencanaan dan Pengendalian Bahan Baku pada PT Hema Medhajaya. Jurnal Sisfotek Global. 6(1), 120.

Sumarsan, T. (2020). Sistem Pengendalian Manajemen (Konsep, Aplikasi, dan Pengukuran Kinerja). Edisi Revisi. Jakarta: CV Campustaka.

Susanto, A. (2017). Sistem Informasi Akuntansi (Pemahaman Konsep Secara Terpadu). Edisi Perdana. Bandung: Lingga Jaya.

Sutarbi, T. (2020). Analisis Sistem Informasi. Edisi I. Yogyakarta: CV Andi Offset.

Syaharman. (2020). Peranan Sistem Informasi Akuntansi dalam Mengambil Keputusan Manajemen pada PT Walet Solusindo. Bisnis-Net Jurnal Ekonomi dan Bisnis. 3(2), 185-192.

Wanti, A. A. N., Dince, M. N., & Aurelia, P. N. (2023). Sistem Informasi Akuntansi Penjualan Tunai PT. Kerajinan Jepara Tunggal. Jurnal Accounting UNIPA. 2(1), 68-78.

Weygandt, J. J., Kimmel, P. D., & Kieso, D. E. (2019). Pengantar Akuntansi 1 Berbasis IFRS. Edisi 2. Jakarta: Salemba Empat.

Yanto, R. (2016). Manajemen Basis Data Menggunakan MySQL. Yogyakarta: Deepublish. https://alfamart.co.id/tentang-perusahaan/sejarah (diakses pada tanggal 10 Juni 2024).