

Analysis of Sales Accounting Information System at CV Ide Teknik Engineering Solo

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ABSTRACT: This study analyzes the sales accounting information system and internal control effectiveness at CV Ide Teknik Engineering Solo. The company applies a Make-to-Order (MTO) sales system. Using a descriptive qualitative method, data were collected through interviews, observations, and documentation. The findings show that the sales system operates systematically but remains semi-manual using Microsoft Excel and is not fully integrated. Internal control is still weak due to the absence of written SOPs, overlapping job functions, and centralized authorization by the owner. The study recommends establishing SOPs, separating functions, digitalizing the accounting system, strengthening internal controls, and developing an integrated database to improve efficiency, accuracy, and data security.

KEYWORDS: Accounting Information System, Internal Control, Sales, Make-to-Order, Segregation of Duties

INTRODUCTION

Accounting Information System (AIS) plays an important role in processing transaction data into information that supports decision-making and internal control of the company. In manufacturing companies, sales AIS helps the process of recording orders, controlling payments, and shipping products. CV Ide Teknik Engineering Solo is a plastic machinery manufacturing company that implements a Make-to-Order (MTO) system, where production is carried out after orders and down payments are made. The complexity of transactions and staged payments demands a structured and accurate sales system. However, various previous studies indicate that semi-manual systems often cause problems such as recording errors, weak internal controls, task overlapping, and data manipulation risks. These conditions can hinder operational effectiveness and the presentation of financial reports. Therefore, this study aims to analyze the implementation of sales accounting information systems and the effectiveness of internal controls at CV Ide Teknik Engineering Solo.

LITERATURE REVIEW

1. System

A system is a network of procedures created according to an integrated pattern to carry out the main activities of a company (Mulyadi, 2023). An accounting system is an organization of forms, records, and reports that are coordinated in such a way as to provide the financial information needed by management to facilitate company management (Mulyadi, 2023:3).

2. Accounting Information System

According to Romney et al., (2021: 11), an Accounting Information System (AIS) is a system that collects, records, stores, and processes data to produce information for decision-makers. A well-designed AIS can provide added value to an organization by improving quality and reducing the cost of products or services, increasing efficiency, sharing knowledge, enhancing the efficiency and effectiveness of the supply chain, as well as improving the structure of internal controls.

3. Sales

Sales carried out by the company by requiring the buyer to make payment for the goods first before the goods are delivered by the company to the buyer (Mulyadi, 2023:379). Sales in accounting information systems are generally discussed within the framework of the revenue cycle. Romney et al., (2021: 374) define the revenue cycle as a series of business activities and related information processing operations that are continuously carried out in connection with the provision of goods and services to customers and the receipt of cash as payment for those sales.

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4. Internal Control

Organizational structure, methods, and measures that are coordinated to safeguard the organization's assets, check the accuracy and reliability of accounting data, encourage efficiency, and promote compliance with management policies (Mulyadi, 2026:163). Meanwhile, according to Romney & Steinbart (2021:324), internal control is the processes and procedures implemented to provide reasonable assurance that control objectives are met..

5. Flowchart

According to Mulyadi (2023: 45), a Data Flow Diagram (DFD) is defined as a model that describes the flow of data and the processes for processing data within a system.

RESEACH METHOD

This study uses a descriptive qualitative method at CV Ide Teknik Engineering Solo, a plastic machinery manufacturing company based on Make-to-Order (MTO). The research focuses on the sales accounting information system and the effectiveness of internal controls. Data were obtained through interviews, observations, and documentation with informants including the owner, financial admin, and general admin. Analysis was conducted using evaluation of procedures, documents, DFD, and elements of internal control.

DISCUSSION

A. General Description of The Research Object

CV Ide Teknik Engineering Solo is a company engaged in general trading, supplying, and engineering services with a focus on manufacturing industrial machines based on customer needs. The company implements a Make-to-Order (MTO) system, meaning the production process is carried out after orders are received, so product specifications can be customized and the risk of inventory buildup can be minimized. The company's operational activities include production areas, material warehouses, and administrative offices centralized in one operational location. The company's organizational structure is still simple, with the owner as the center of decision-making and operational supervision. The owner is assisted by an operations coordinator, head mechanic, technicians, and the administrative department. In the accounting information system, the company still uses a semi-manual system based on Microsoft Excel for recording transactions, creating quotations, invoices, receipts, and financial reports. The project-based work system with flexible operating hours affects the process of recording the company's revenues and expenses, therefore requiring good administration management and control to ensure operations run effectively and efficiently.

B. Research Result

The research results show that the sales system at CV Ide Teknik Engineering Solo begins with the process of negotiating customer needs, then the company makes a quotation containing product specifications, prices, and payment schemes. Once agreed, the company issues a proforma invoice and production is carried out after the customer pays a down payment. Once the product is completed, the goods are delivered along with the final invoice and receipt.

The division of tasks involves the owner, general admin, and financial admin. The owner plays a role in controlling processes, setting prices, and approving transactions. The general admin handles sales documents, while the financial admin manages cash receipts and payment verification. However, the owner's role is still dominant in various system activities.

Transaction recording is done manually using Microsoft Excel with documents such as quotations, invoices, receipts, and internal memos. The filing system is not optimally organized, making data retrieval difficult. From the internal control perspective, the company does not yet have written SOPs, the segregation of duties is not optimal, and authorization is still centralized with the owner, although there is direct supervision as informal control.

C. System Analysis

The analysis of the sales accounting information system (AIS) at CV Ide Teknik Engineering Solo is carried out based on the AIS components according to Romney & Steinbart, namely people, procedures, data, software, IT infrastructure, and internal controls. In the people component, the parties involved include the owner, financial admin, and general admin. The owner is responsible for receiving orders, giving authorization, and supervising. The financial admin manages transaction records and cash receipts, while the general admin prepares quotations and sales invoices. However, the limited number of employees leads to task overlap, increasing the risk of errors and fraud.

In the procedures and instructions component, the sales procedure has been running systematically, starting from order receipt, quotation preparation, transaction approval, invoice preparation, goods delivery, payment receipt, to recording transactions using Microsoft Excel. Nevertheless, the company does not yet have a written SOP, so the work process has not been formally standardized. In the data component, the company has regularly managed customer data, sales, receivables, cash receipts, and

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goods delivery. However, the still manual system causes the risk of human error and delays in data updates because an integrated real-time database is not yet available.

In software components, the company uses Microsoft Excel as the main medium for accounting records. The use of Excel is considered practical and inexpensive, but it has weaknesses such as lack of integration between sections, risk of formula errors, limited access control, and the absence of an audit trail.

In the IT infrastructure component, the company already has computers, printers, and internet access, but does not yet have a centralized server, regular data backup system, and adequate information security, which increases the risk of data loss.

From the perspective of internal controls, the company has implemented transaction authorization, document storage, and periodic recording. However, there are still weaknesses such as suboptimal segregation of duties, the absence of routine bank reconciliations, documents without printed sequential numbers, and the lack of an independent internal audit.

According to Mulyadi's theory, the functions of sales, credit, warehousing, shipping, and accounting should be clearly separated. However, in practice, some functions are still combined by the admin and owner, and there is no multi-level authorization system yet. The results of data triangulation indicate several main weaknesses, namely the absence of written SOPs, high dependence on the owner, a still manual system, suboptimal function separation, and a high risk of transaction recording errors.

D. Discussion

Based on the theory of Romney & Steinbart, the accounting information system at CV Ide Teknik Engineering Solo has not fully met the characteristics of an effective AIS, especially in terms of system integration and internal control. In theory, an AIS must be able to produce relevant, reliable, accurate, and timely information. However, the use of manual systems based on Microsoft Excel still has the potential to cause information delays as well as recording errors. According to Mulyadi's theory, segregation of duties is an important element in internal control to reduce the risk of errors and fraud. In practice, some functions in the company still overlap, thereby increasing the risk of fraud. In addition, the absence of a written SOP causes high dependence on the owner and certain individuals, making the system less stable when there is a change of employees. Nevertheless, the system in use has advantages such as flexibility, low operational costs, and ease of use. This condition still aligns with the characteristics of medium-sized companies that prioritize operational efficiency and ease of system management.

The following is a comparison of Sales Accounting Information Systems based on theory and practice:

Table 1. The following is a comparison of Sales Accounting Information Systems based on theory and practice

No	Aspect	Teory (Romney & Steinbart / Mulyadi)	Internship at CV Ide Teknik Engineering Solo	Analysis
1	Struktur System	The system must be integrated and computer-based	Using Microsoft Excel (semi-manual)	Not yet integrated, at risk of input errors
2	Procedure	Must have written and documented SOP	Does not have written SOP	Causing process inconsistency
3	Separation of functions	The functions of sales, cash, and accounting must be separated	The function is still held by both the admin and the owner	High risk of fraud and errors
4	authorization	Every transaction must go through layered authorization	Authorization only by the owner	Lack of formal control
5	Dokumentasion	The document must be sequentially numbered and neatly documented	The documents exist, but the archives are not yet systematic	Complicating audits and data searches
6	Internal Control	There must be a strong internal control system	Control is still informal	Does not guarantee system security
7	Data processing	Data is processed automatically in the system	Manual input in Excel	Prone to human error
8	Data Storage	Using a centralized database	There is no specific database	Risk of data loss

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No	Aspect	Teory (Romney & Steinbart / Mulyadi)	Internship at CV Ide Teknik Engineering Solo	Analysis
9	Timeliness of Information	Information must be real-time	Depends on manual input	Information is not fast enough
10	Audit Trail	There must be a clear audit trail	Not available systematically	Difficult to examine

Based on the table above, it can be concluded that the sales accounting information system at CV Ide Teknik Engineering Solo has not fully met the theoretical standards proposed by Romney & Steinbart and Mulyadi. The most significant gaps lie in the aspects of segregation of duties, internal control, and the use of information technology. Specifically, the lack of clear segregation of duties indicates that the system still has fundamental weaknesses in internal control. In addition, the use of Microsoft Excel as the main recording tool shows that the system is not yet optimally integrated..

The sales system flow starts with the customer's request, which is then followed by a negotiation process regarding specifications and price. Once an initial agreement is reached, the admin prepares a quotation, which is then approved by the owner before being sent to the customer. If the customer agrees to the offer, the admin will create a proforma invoice as the basis for advance payment. After the payment is confirmed, the production process begins until the goods are produced. Next, the goods are delivered to the customer, and the admin prepares the final invoice. After the customer completes the payment, the company issues a receipt and records the transaction in the Excel system. All documents are then archived as part of the company's administration.

E. Recommendation

Based on the analysis of the sales accounting information system at CV Ide Teknik Engineering Solo, which is still semi-manual and not yet integrated, the researcher designed a proposed system flowchart as a form of improvement. This flowchart aims to illustrate a sales process that is more structured, documented, and has stronger internal control.

1. Flowchart Recommendation

As for the proposed sales accounting information system flow, it is as follows:

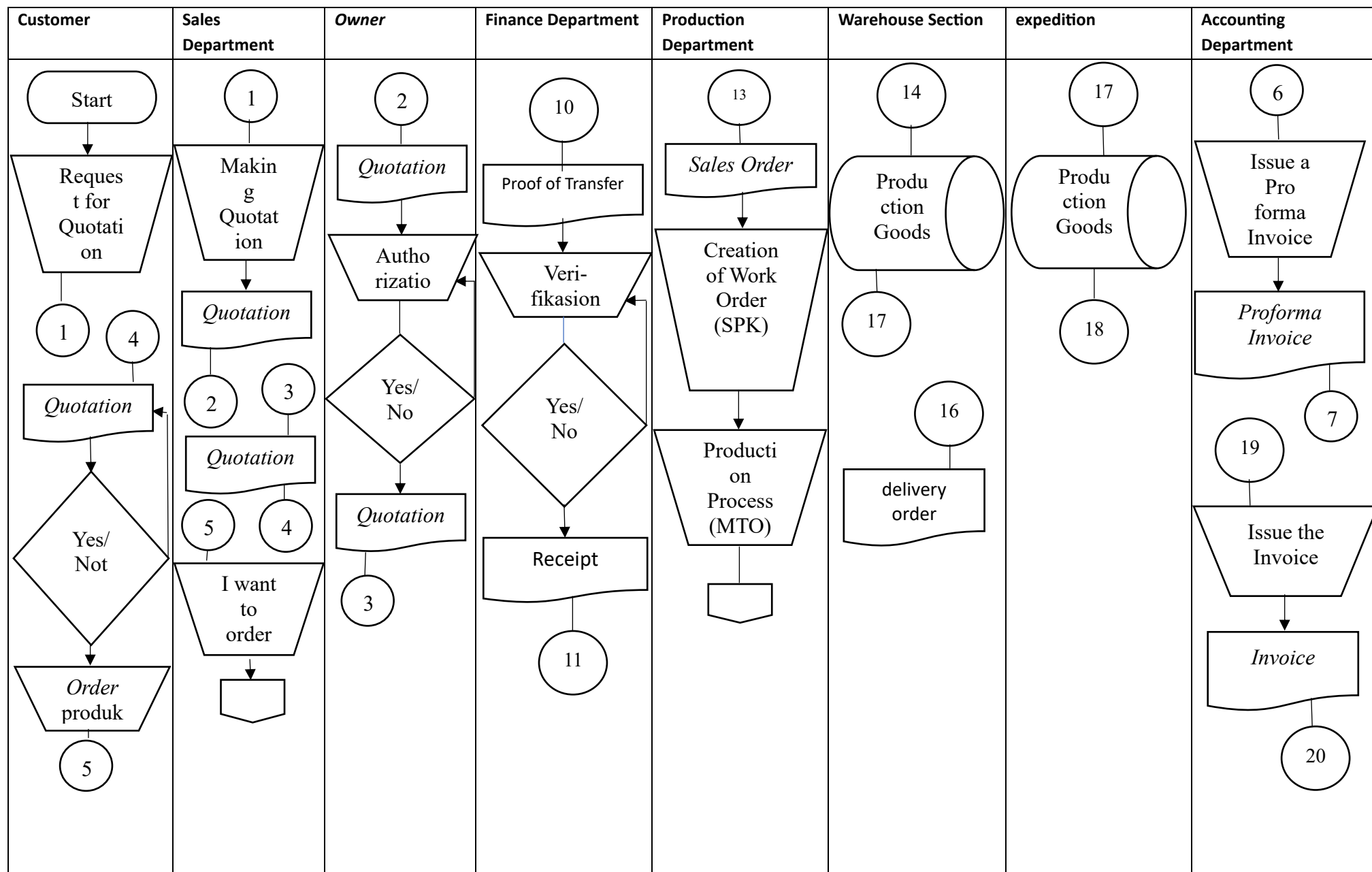
Sales Accounting Information System Flow:

- The customer submits a request for a quotation to the company according to the desired product needs, including specifications, quantity, and processing time.
- The sales department receives the customer's request and prepares a quotation document or price offer based on the needs and specifications of the product requested by the customer.
- The quotation document is submitted to the owner to obtain authorization and approval as a form of internal company control.
- After obtaining the owner's approval, the quotation is sent to the customer for review and consideration..
- If the customer agrees to the quotation provided, the accounting department issues a Proforma Invoice as an initial billing document used as the basis for the down payment (DP).
- The Proforma Invoice is sent to the customer as a detailed breakdown of the initial payment according to the transaction agreement.
- The customer makes the down payment (DP) based on the Proforma Invoice issued by the company.
- The finance department verifies the down payment (DP) to ensure that the payment has been received according to the specified amount..
- After the down payment (DP) is received and verified, the sales department issues a Sales Order (SO) as the official basis for carrying out the transaction and production process.
- Transaction data from the Sales Order is then input into the accounting information system based on software so that all transactions are recorded automatically and integrated.
- The production department creates a Work Order (SPK) as the basis for carrying out production according to customer orders.
- The production department carries out the production process using the Make-to-Order (MTO) system, meaning production is carried out after an order that has been approved by the customer and the DP payment has been received.
- After the production process is completed, the Quality Control (QC) department conducts a quality inspection of the products to ensure compliance with the specified specifications and standards.

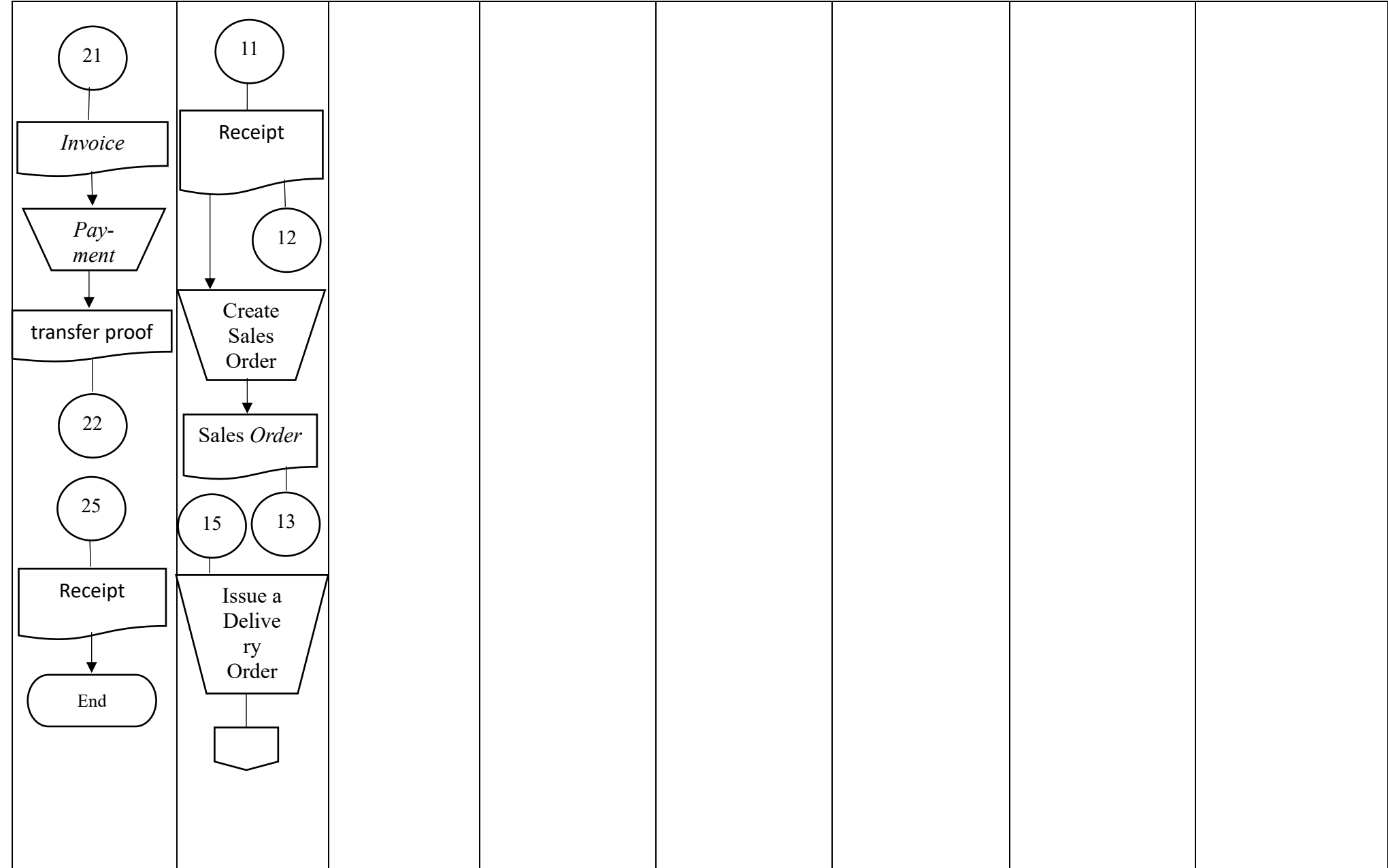
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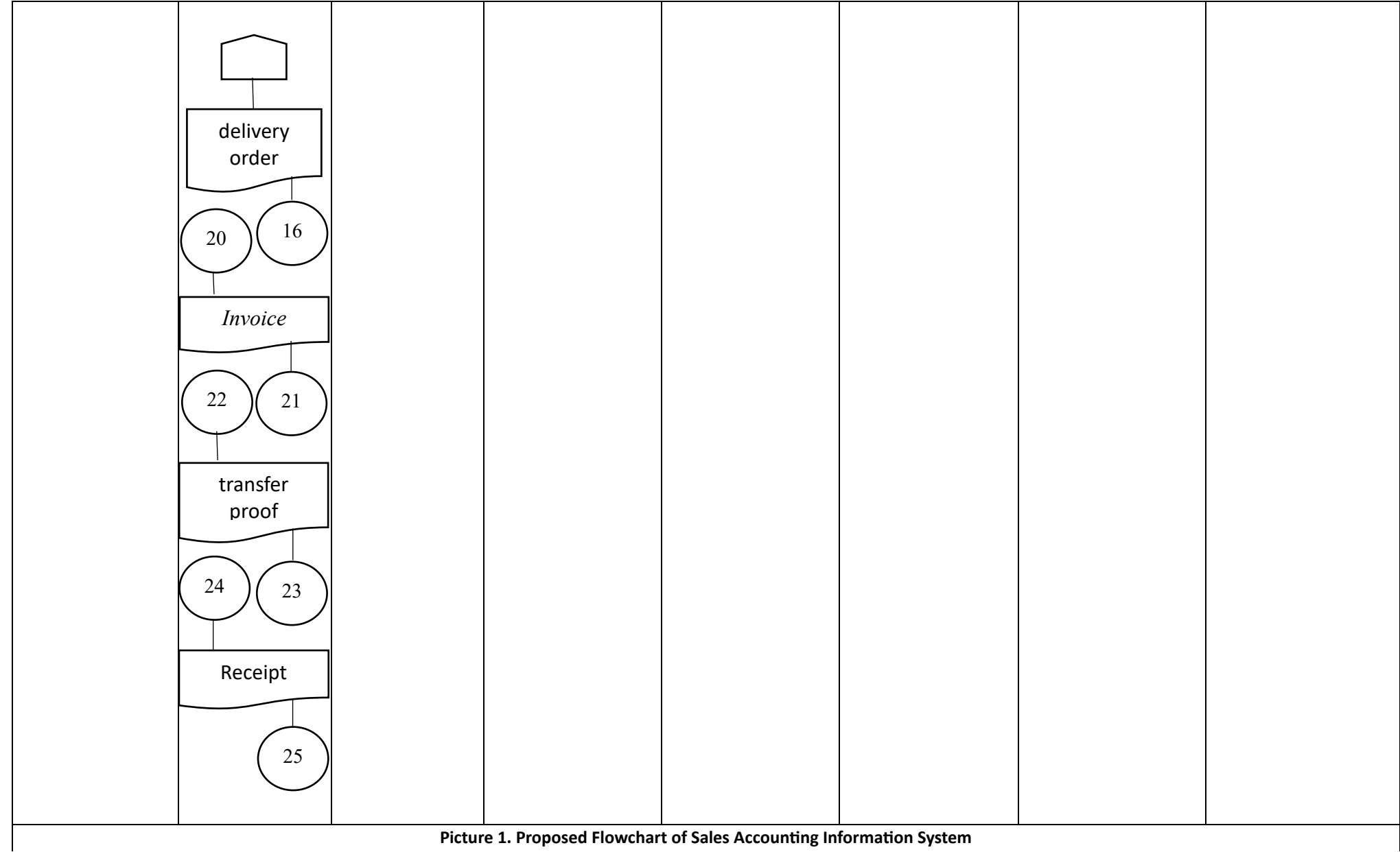
- n. Products that have passed the QC inspection are then handed over to the warehouse section to be temporarily stored as finished goods before shipment.
- o. The expedition/shipping department distributes the goods to customers accompanied by delivery documents as official proof of shipment.
- p. After the goods are sent, the accounting department issues invoices or billing statements for payment settlement according to the payment terms agreed upon with the customer.
- q. The customer makes full payment for sales transactions that have been conducted according to the invoice issued by the company.
- r. The finance department receives the customer's payment and records the cash receipt into the company's accounting information system.
- s. The finance department reconciles the transaction records in the system with the company's bank account mutations to ensure the accuracy of cash receipt transaction data.
- t. The system automatically generates financial reports and sales reports based on transaction data that has been integrated into the system.
- u. All sales transaction data is stored in an integrated database as an archive medium, data backup, and a source of company information that is secure and easily accessible.

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Picture 1. Proposed Flowchart of Sales Accounting Information System

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2. System Improvement Proposal

Based on the proposed system flowchart, there are several improvement recommendations that can be applied by the company, as follows:

a. *Compilation Standard Operating Procedure (SOP)*

The proposed flowchart shows the need for a written SOP that regulates the entire sales process systematically. The SOP functions as a work guideline so that activities run consistently, facilitate supervision, and reduce dependence on the owner in running the sales system.

b. *Separation of Functions*

The proposed system implements a separation of functions between the sales, finance, production, shipping, and accounting departments to strengthen internal control and reduce the risk of errors or fraud. The division of functions includes:

- 1) Sales Department: handles quotations and sales orders
- 2) Finance Department: manages cash receipts and payment verification
- 3) Production Department: carries out the production process of goods
- 4) Shipping Department: distributes goods to customers
- 5) Accounting Department: records transactions and prepares financial reports

c. *Digitization of Accounting Information Systems*

The proposed system uses accounting software to replace manual record-keeping based on Microsoft Excel. The use of a digital system allows for automatic recording, real-time report presentation, availability of an audit trail, and reduces the risk of human error, making the system more efficient and accurate.

d. *Strengthening Internal Control*

The proposed system implements internal control through layered authorization, simple internal audits, and routine reconciliation between financial data and bank accounts to ensure transactions are recorded correctly and in accordance with company policy.

e. *Integrated System Development*

The proposed system uses an integrated database so that data can be accessed in real-time, minimizing the risk of data loss through backups, enhancing data security, and connecting all parts of the company in one system.

CONCLUSION

Based on the results of research and discussion regarding the sales accounting information system at CV Ide Teknik Engineering Solo, several conclusions can be drawn as follows:

1. The sales accounting information system at CV Ide Teknik Engineering Solo has been running with a fairly systematic flow, starting from the order receipt process, quotation creation, transaction approval, Make-to-Order (MTO) based production process, up to billing and payment receipt. However, the system used is still semi-manual by utilizing Microsoft Excel, so it is not yet fully integrated across functions.
2. Internal control in the sales system has not been running optimally. This is indicated by the absence of written SOPs, the existence of overlapping tasks between functions, and authorization still being centralized with the owner. This condition has the potential to cause risks of recording errors, delays in information, and opportunities for fraud.
3. If compared with the accounting information system theory according to Mulyadi and Romney & Steinbart, the system implemented by the company does not fully meet the elements of a good system, particularly in aspects of segregation of duties, procedure documentation, use of technology, and internal control..
4. Based on the analysis results, the sales accounting information system needs to be developed through the implementation of written SOPs, clear function separation, system digitalization using accounting software, strengthening internal controls, and the development of an integrated database. The proposed system flowchart design shows that a more structured and digitized system can improve efficiency, accuracy, and company data security..

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