

## Design of a Merchandise Inventory Accounting Information System for Internal Control at PT Iko Minang Retail, Bukittinggi, Indonesia



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**ABSTRACT:** This study aims to design a merchandise inventory accounting information system and evaluate internal controls at PT Iko Minang Retail. There are differences in the number of stocks in records and warehouses, which causes goods to be delivered late and losses to occur, as well as the quality of goods that are not checked further so that consumers return to PT Iko Minang Retail, this happens because the company does not have a merchandise inventory accounting information system. . The method used in this study is descriptive qualitative, using primary and secondary data sources. Data collection techniques were carried out by means of interviews, observation, and documentation. The results showed that the problems experienced by PT Iko Minang Ritel occurred due to the absence of clear merchandise inventory procedures, especially in the warehouse section, as well as the company's internal controls that were still not effective. Based on these problems, this study resulted in a design of a merchandise inventory accounting information system, as well as a design of the company's internal control.

**KEYWORDS:** Accounting Information System, Merchandise Inventory, and Internal Control

### I. INTRODUCTION

An accounting Information System is a system that collects, records, stores, and changes data to produce information for decision-makers [9]. This system includes people, procedures and instructions, data, software, information technology infrastructure, as well as internal controls and security measures [10]. In a company, an accounting information system can work to encourage as optimal as possible the production of structured accounting information, which is useful both internally and externally for the company, and is also very important for the progress and development of the company itself.[5].

Seeing accounting and information systems as a business language, accounting information systems are needed by corporate organizations. For a company, an accounting information system is built with the main objective of assisting management in managing the company, this includes all activities within the company, such as sales, purchases, receipts, cash disbursements, to recording financial reports. One example of the use of a very important accounting information system is the company's merchandise inventory, with an accounting information system, it is hoped that the merchandise inventory in a company can be managed properly in accordance with the goals to be achieved by the company.

By using an accounting information system, company management will be greatly assisted in managing merchandise inventory in order to achieve maximum profit. Companies can avoid individuals who want to cheat, such as embezzlement of funds and other actions that can harm the company. In order for this accounting information system to function properly, it must be accompanied by effective internal controls. The use of an internal control system serves to direct the company's operations and prevent misuse of the system.

The internal control system is the various policies, practices, and procedures used by the company to achieve four general objectives, namely: (1) Protecting company assets; (2) Ensuring the accuracy and reliability of accounting records and information: (3) Encouraging efficiency in company operations (4) Measuring compliance with policies and procedures established by management [2]. The concept of internal control introduced by the Committee of Sponsoring Organizations of the Tread Way Commission is the supervision of every company program and activity carried out by all parts of the company.

All companies definitely need a system that can manage merchandise inventory and good internal control, one of which is the Electronic Commerce (E-Commerce) industry, because e-commerce is the buying and selling of goods or services carried out through computer networks with specially designed methods. To receive and order goods or services. However, payment and

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delivery of goods or services do not have to be done online. The e-commerce industry is one of the industries in Indonesia, and this industry is growing very rapidly and is still continuing today, as evidenced by the increasing number of companies based on various quality electronic technology. Indonesia is a developing country, and this is a favorable condition for the economic development of the e-commerce industry, with a population of 277.7 million people making the potential for developing e-commerce in Indonesia very large. This is also supported by the use of the internet which continues to grow, making people's enthusiasm in using the internet increase to support their daily activities. The development of e-commerce is also triggered by offering cheap, attractive and innovative products.

Of the ten countries with the highest use of e-commerce in the world, Indonesia is in the top position, namely with internet users of 88.1% in 2021, this percentage is far above the average global adoption of e-commerce which is around 78.6% [1]. In order for the e-commerce industry to grow every year, company management must be careful in using available information, especially in making policies based on this information. However, there are still many e-commerce companies that do not have a merchandise inventory accounting information system accompanied by internal controls. One such e-commerce is PT Iko Minang Retail.

PT Iko Minang Ritel has two types of company sales systems, namely Business to Business (B2B) and Business to Consumer (B2C), where the company offers products through various platforms, such as Instagram Ads, Facebook Ads, Website, Whatsapp and Shopee, with the main focus the target market is the community and business people in the City of Bukittinggi and its surroundings. At this time, the process of inventorying merchandise at the company in general, namely, PT Iko Minang Ritel does not have a warehouse, instead, all requests for goods by customers will be fulfilled through suppliers who are already partners with the company.

The problem faced by PT Iko Minang Ritel is that because it does not have a warehouse, PT Iko Minang Ritel cooperates with several partners consisting of traditional traders, supermarkets and shops in the City of Bukittinggi and its surroundings, wherein the cooperation agreement PT Iko Minang Retail has the right to claim products sold by partners as company supplies. All consumer needs will be met on the same day of delivery. This causes a difference between the number of stock items on record and the warehouse, so that when a request for goods is submitted to the warehouse for delivery, the goods cannot be fulfilled because the stock of goods in the warehouse is empty.

This problem occurs more frequently in Business to Business (B2B) sales than Business to Consumer (B2C) due to the larger quantity of ordered goods. Usually for Business to Consumer (B2C) sales, the company will fulfill requests for goods from sellers or distributors outside the company's partners, although sometimes there are price differences that are still within reasonable limits. Whereas in Business to Business (B2B) sales, the company is usually able to fulfill requests for goods that are not available the next day where it is outside the agreement between the company and the consumer who will send the goods one day after the order is received, and the cost of shipping the goods will be borne by the company. Different from the cost of shipping goods one day after the order is received which will be billed to the consumer.

The next problem is the quality of goods, this occurs in Business to Business (B2B) sales. PT Iko Minang Retail will fulfill consumer demands through suppliers who are already partners with the company. Sometimes the quality of goods from suppliers is far below the agreed terms, and due to time and manpower constraints, companies often do not check further how the quality of the goods before sending them to consumers. If this happens, the consumer will return the goods to the company for return, and all losses will of course, be borne by the company.

This problem occurs because the company does not yet have a merchandise inventory accounting information system to improve internal control that can help the system run in the company. Based on this phenomenon, there are several studies on the same topic with the results of research stating that the merchandise inventory accounting information system at PT Parit Padang has not been running effectively and efficiently in supporting the company's internal control [11, 12, and 6]. Based on this, this study aims to design a merchandise inventory accounting information system and evaluate internal controls at PT Iko Minang Retail.

## **II. LITERATURE REVIEWS**

An accounting information system in outline is an organized way of collecting, entering, and processing data both manually and on a computer and will be controlled so that it can produce useful information in achieving company goals [13]. The main objective of an accounting information system is to convert accounting data from various sources into accounting information needed for users to reduce risk in decision-making. Users of this information come from external and internal companies. The accounting information system has benefits for companies, namely: (1) Providing accurate and timely information so that

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companies can effectively and efficiently carry out the company's main activities; (2) Improve quality and reduce costs; (3) Increasing efficiency of business performance; (4) Improving management's ability to make decisions; (5) Increasing opportunities for knowledge sharing within the company [7]. Inventory accounting information system is a system that manages inventory records so that companies can find out if a certain type of item requires addition [3]. Based on this, the inventory accounting system can be defined as a system that processes data and transactions to generate useful information related to inventory for the purpose of planning, controlling, and operating a business. Through accounting information systems, companies can find out the activities of buying, receiving, and selling goods [8]. Internal control is part of every system that is used as a procedure and operational guideline for a particular company or organization. The use of the internal control system serves to direct the company's operations and prevent abuse of the system. The internal control system consists of various policies, practices, and procedures used by the company to achieve four general objectives, namely: (1) Safeguarding company assets; (2) Ensuring the accuracy and reliability of accounting records and information: (3) Encouraging efficiency in the company's operations (4) Measuring compliance with the policies and procedures established by management [2].

The internal control structure includes policies and procedures designed to provide a reasonable level of assurance regarding the achievement of organizational goals [9]. Internal control carries out three important functions, namely internal control for prevention, control for inspection, and corrective control [4]. In general, an accounting information system must maintain four general goals within the company, but sometimes a system still has weaknesses that can pose several risks such as asset destruction, asset theft, damage to information or information systems, and disruption of information systems.

The internal control system is under the responsibility of the organization's management. Management responsibilities include their creation and maintenance. The internal control system must be made adequately, that is, it must be in accordance with the needs of the organization that uses it, so as not to reduce the trust of the parties with interest in the organization. Management is responsible for providing information to shareholders, investors, creditors and all parties with interest in the organization they lead. The internal control system is considered important because many management do not always fulfill their responsibilities properly.

### **III. METHODS**

Based on the background and research objectives previously described, this research uses a qualitative descriptive method, so that this research gains a deeper understanding of the merchandise inventory accounting information system in the framework of internal control and also the development of the theory. This research was conducted at PT Iko Minang Ritel, an e-commerce-based retail company in Bukittinggi City, West Sumatra Province, which will focus on the merchandise inventory accounting information system within the framework of internal control at the company. In this study, primary data was obtained based on interviews conducted with the leadership of PT Iko Minang Ritel Company and also with company employees. In this study, company documents are used as a secondary data source. The documents used are related to the merchandise inventory received and issued by the company.

This research will use interview and observation research instruments. Interviews are research conducted by asking several questions either directly or face to face or indirectly via digital such as telephone or other communication media. Through this interview research instrument, the information obtained will be more extensive and accurate because there are no limitations on questions that can be asked about the research object. Observational research instruments are carried out by observing the object of research directly to obtain more accurate and objective data or information. This study uses a data credibility test, namely a test of trust in the results of the data obtained from the research conducted, with the aim that the research results are not in doubt. The credibility test in this study uses the triangulation technique, which is a technique to obtain data from various sources that are useful for increasing understanding of the findings in the research conducted.

### **IV. RESEARCH RESULTS**

#### **4.1 RESEARCH RESULT Data Reliability and Validity**

Reliability testing in this study was carried out by re-checking the existing data with the data obtained from informants. These data are in the form of documents that can support research related to merchandise inventory in improving the company's internal control. Data from informants were obtained from interviews conducted with the Chief Executive Officer and chief financial officer of PT Iko Minang Ritel to test whether the explanations from informants matched the research data. This study also analyzed the validity of the data using data triangulation which was carried out by interviewing PT Iko Minang Ritel informants. In addition to interviews, researchers also collected data from various sources such as written documents, archives,

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minutes, and records owned by the company. By using the triangulation method, researchers can compare the data obtained from interviews with existing documents, so that the resulting data is accurate and can be accounted for. Based on the data collected by the researchers, there is no difference between the data provided by the informants and the documents owned by PT Iko Minang Ritel. Researchers believe that the resulting data can be trusted for research, because there is no difference in the data.

### 4.2 Design of Merchandise Inventory Accounting Information System at PT Iko Minang Retail

PT Iko Minang Ritel does not yet have a merchandise inventory accounting information system in the framework of the company's internal control, whereas with an accounting information system, the company will be greatly assisted in making decisions, and helping the activities of the company to run effectively and efficiently. The inventory accounting information system is closely related to the sales system, sales return system, purchasing system, purchase return system, and production cost accounting system. Through an overview of the accounting information system using a flowchart design, the company will be assisted in understanding the contents of the merchandise inventory information, so that researchers provide suggestions related to the design of the merchandise inventory accounting information system for PT Iko Minang Retail as follows:

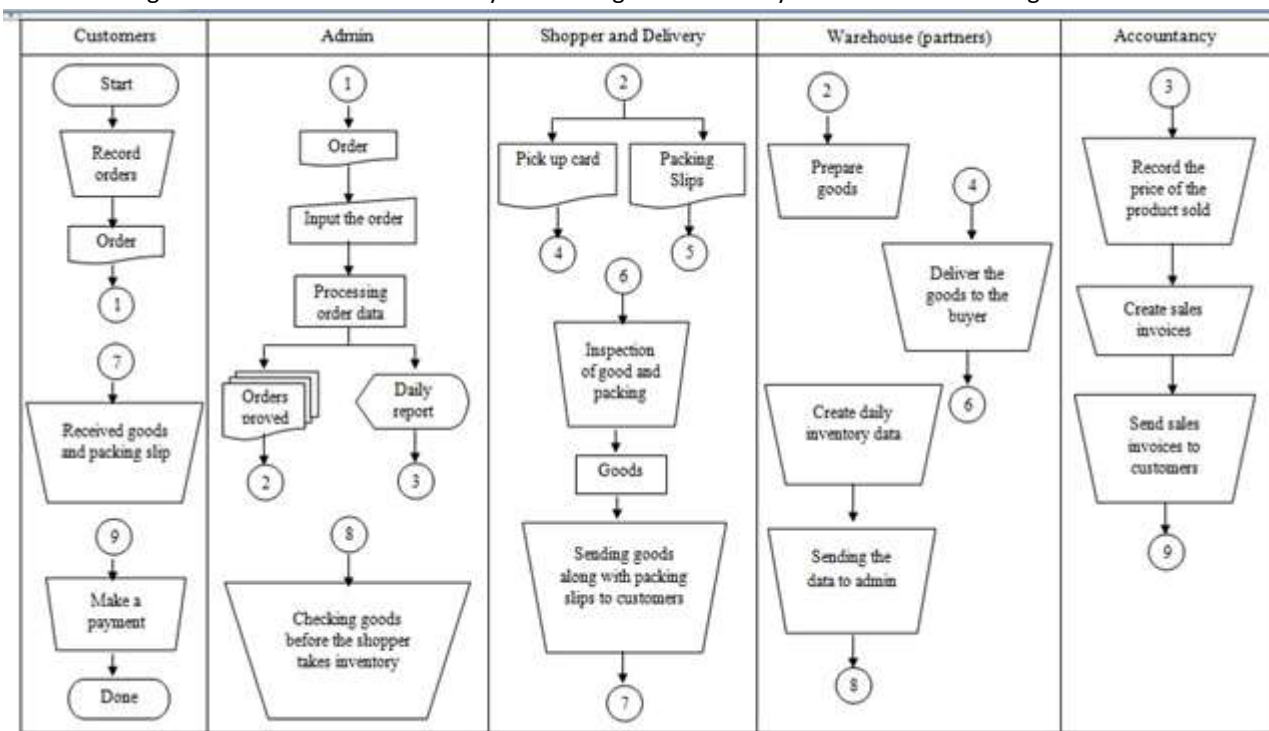


Figure 1. Flowchart of PT Iko Minang Retail's Merchandise Inventory Accounting Information System

### 4.3 Internal Control Analysis at PT Iko Minang Retail

Internal control is needed by a company so that the company's accounting information system functions properly. The use of an internal control system serves to direct the company's operations and prevent misuse of the system. Based on the COSO internal control components, which consist of the control environment, risk assessment, control activities, information and communication, and monitoring activities, the researchers made observations regarding the internal controls at PT Iko Minang Ritel.

## V. DISCUSSION

Figure 1 explains that the consumer will write a list of ordered items and place an order to the company admin, the order list is sent along with the consumer's address. The admin of PT Iko Minang Retail, who has received orders from consumers, will then enter and process the order data for the goods and proceed with making proof of consumer orders. Order data that has been made is also used to make daily reports that will be submitted to the accounting department. The admin sends proof of consumer orders to the shopper and shipping departments, and also to the warehouse (partners) department.

The shopper and delivery department receive proof of order from the admin, which is used as a data source for making collection cards and also packing slips. The collection card will be handed over to the warehouse department at the time of

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picking up the goods, and the packing slip will be sent to the consumer along with the delivery of the goods. After the warehouse department receives proof of order from the admin, then the consumer's ordered goods will be prepared and handed over to the shopper on the condition that there is a collection card that will be given by the shopper to the warehouse department. The shopper brings the consumer's ordered goods obtained from the warehouse to the Iko Check Point to check the quality and quantity, then the goods are packed and sent to the consumer's address along with the packing slip.

The accounting section receives daily reports from the admin, which will then be used as a data source for recording. Based on the results of the recording, then the accounting department will create a sales invoice consisting of the total amount of consumer spending and other costs, and send it to the consumer. Consumers who have received sales invoices will then make payments.

In the design of this merchandise inventory accounting information system, the researcher provides suggestions that the warehouse section will make daily inventory data in the form of inventory cards which will be reported to the company admin, this aims to reduce the risk of unavailability of consumer ordered goods. This can be done if the company renews the cooperation contract with the supplier/partner, where in the previous cooperation agreement, PT Iko Minang Ritel has the right to claim that the goods sold by the partners are stock of trade goods for PT Iko Minang Ritel, and functions as the company's warehouse. Due to the absence of a physical warehouse owned by PT Iko Minang Ritel, the company often does not know the supply of merchandise from suppliers/partners,

The researcher also suggests that the admin contact the warehouse department by sending proof of the order so that the warehouse department can prepare the ordered goods before the shopper comes to pick up the ordered goods. The reason for the researcher giving this suggestion is because at PT Iko Minang Retail, the warehouse department (partner) will prepare the ordered goods after the shopper comes to the warehouse and submits the collection card, this is certainly not efficient in terms of time.

Internal controls at PT Iko Minang Retail that have not been effective, namely:

1. **Control Environment.** PT Iko Minang Ritel already has good corporate values and a code of ethics. PT Iko Minang Ritel also has an organizational structure that separates the functions and duties of each part of the company and has sound policies and practices. However, PT Iko Minang Ritel does not have a Standard Operating Procedure related to merchandise inventory which serves as work guidelines, legal basis, benchmarks, and a guide to facilitate work implementation. This causes the implementation of work performed by employees to be inconsistent and sometimes not in accordance with company rules. For example, in the process of checking inventory before sending it to consumers, the shopper is required to check the quality and quantity of the goods according to the standards set by the company, but due to time and manpower constraints, often the shopper does not check in detail, and sends them directly to consumers. If the consumer receives goods with conditions that are not in accordance with the agreement, a return will be made which will certainly cause losses for the company.
2. **Risk Assessment.** PT Iko Minang Retail still uses the company's manual operating system. In general, every process carried out at PT Iko Minang Retail uses the Microsoft Excel application, which is not guaranteed to be secure, and the risk of errors is quite high. For example, when the admin makes daily reports, there are often errors in both the type of goods, the quantity of goods, and the price of these goods. This will make the accounting and finance department have to check the data from the admin again and compare it with related documents such as collection cards and packing slips. Because of these problems, finally the accounting and finance departments could not work efficiently.
3. **Control Activities.** The risk of errors in data processing as well as the inefficient performance of accounting and finance departments, can be overcome by using accounting software such as accurate, zahir, or others. By using accounting software, the security of company data will be guaranteed and avoid leaks. Subsequent control activities, namely PT Iko Minang Retail must make Standard Operating Procedures related to the company's merchandise inventory to serve as work guidelines, legal basis, benchmarks, and as guidelines to facilitate work implementation. Examples of these Standard Operating Procedures are Standard Operating Procedures for picking up goods, Standard Operating Procedures for shipping goods, Standard Operating Procedures for quality control,
4. **Information and Communication.** PT Iko Minang Ritel conducts weekly meetings in each division which are attended by the company's chief executive officer. Each division will explain the duties and responsibilities that have been carried out and the problems experienced. The chief executive officer will provide instructions and make decisions in solving problems experienced by the division.

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5. Monitoring Activities. Every day PT Iko Minang Retail always checks sales data. Daily data created by the admin will be given to the accounting and finance department for further inspection, whether all data looks normal and in accordance with company rules. PT Iko Minang Ritel also conducts internal audits on a micro-scale in the finance section on a regular basis. The head of finance will check every data and document in the accounting and finance department. Each division member at PT Iko Minang Ritel always provides a report to the division head regarding the progress of the member's job responsibilities, which will then be reported at the weekly meeting with the company's chief executive officer.

6.

### VI. CONCLUSION

The design of the inventory accounting information system for PT Iko Minang Retail was created by adding inventory cards made by the warehouse department (partners) so that empty stocks in the warehouse can be avoided. In addition, there is also an addition to proof of order sent to the warehouse before the shopper picks up the goods, so that the goods have been prepared by the warehouse in advance and reduce the risk of delays in sending ordered goods to consumers.

Internal control at PT Iko Minang Ritel is based on internal control components according to COSO, namely, the company has good values, a code of ethics, and an organizational structure, but does not have Standard Operating Procedures related to the company's merchandise inventory. PT Iko Minang Retail only uses the Microsoft Excel application to run the company's operations. PT Iko Minang Ritel conducts weekly meetings in each division attended by the company's chief executive officer, and conducts micro-scale internal audits in the accounting and finance department. Based on this, it can be concluded that the internal control at PT Iko Minang Retail is still not effective. The design of internal control at PT Iko Minang Retail is by carrying out control activities in the form of using accounting software.

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