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Design of a Web-Based Goods Inventory Information System at PT. Indonesian Navy Blue

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ABSTRACT : *The currently developing technology has a positive impact on the need for information, one of which is on the Accounting Information System (AIS). The application of technology to AIS helps in recording transactions, reporting, internal control, and quick and accurate decision-making. At PT. Navy Blue Indonesia, after conducting observations and interviews, it was found that they have not yet implemented computerized recording, resulting in recording errors, slow reporting, and data retrieval. Based on this phenomenon, the researcher is interested in designing a web-based inventory information system for PT. Navy Blue Indonesia. It is highly hoped that this web-based inventory information system can help the company overcome its problems. The research method used is descriptive qualitative with the Rapid Application Development (RAD) design method, which includes four stages: project requirements, prototype, rapid construction & feedback, and implementation. The result of this research is a web-based inventory information system used to record incoming goods, quality control goods, and outgoing goods, as well as to manage inventory data, goods quality data, and stock data. This system is designed to support the computerized inventory AIS at PT. Navy Blue Indonesia, ensuring faster and more accurate reporting.*

KEYWORDS -*Accounting Information System, Inventory Information System, System Design.*

I. INTRODUCTION

The inventory information system is a very important system for business actors to prevent errors in recording that might occur if the system used is still manual (Ginting & Hermansyah, 2022, p. 141). Errors in recording inventory affect the company's financial reports and profit and loss statements.

PT. Navy Blue Indonesia is a company operating in the field of electronic spare parts services. Transaction recording at this company uses manual Microsoft Excel to input transactions for receipt and expenditure of goods up to inventory data reports. Based on the results of observations and interviews with company managers, the phenomenon found in this company is the existence of inaccurate inventory reports and slow reporting. Inaccuracies in inventory reports are caused by errors in recording item specifications when inputting into Microsoft Excel and inaccuracies in recording the grouping of goods that pass quality control and those that do not pass quality control which can have an impact on the company's income. Apart from that, searching for goods data is carried out manually because they do not yet have a database, which causes a lot of invalid data and the risk of losing data, which slows down reporting of goods inventory.

This company has an average of 391,369 incoming and outgoing goods per day. In the recording activity, there is a difference between incoming goods and outgoing goods which is repeated every period so that it has an impact on the income received by the company.

The company experiences quite large losses each period, due to errors in recording and managing goods. So companies must be quick and accurate in recording goods because if a recording error occurs it will cause losses. Goods management is also needed so that goods can be managed well to avoid loss of goods which will result in income and slow reporting processes to decision making which will be detrimental. company. As is

known, Microsoft Excel does not yet have a Database Management System (DBMS) so it cannot create database applications and is not equipped with complete and easy-to-use facilities such as automatic input, automatic buttons, and report creation cannot be done automatically. Its use is also less effective and the information produced is slow when the data is needed. So it cannot overcome the problems faced by the company. Therefore, an inventory information system is needed that can overcome this. The application that the author will design is a web-based application using the Php Rad (Rapid Application Development) programming language and using a MySQL database. Web-based system applications make it easier for companies to manage inventory efficiently and in an integrated manner. This is very important for the company's progress in providing wider accessibility, real-time data updates, and ease of managing inventory information. PhpRad (Rapid Application Development) is a framework for developing systems using the PHP programming language and stored in a MySQL database.

II. THEOROTICAL STUDIES

The Accounting Information System (AIS) or Accounting Information System (AIS) is a collection of system devices that have the function of recording transaction data, processing data, and presenting accounting information to internal and external parties of the company (Widiyohening&Supriono, 2023, p. 1) . Meanwhile, according to (Marina et al., 2017, p. 32) the Accounting Information System is a network of all procedures, forms, records and tools used in processing financial data into a report used by management to control its business activities and as a retrieval tool. management decisions.

Inventories based on PSAK 14 are goods available for sale in business activities, in the production process for sale, or in the form of raw materials or equipment used in the production process or providing services (IAI, 2023). Meanwhile, according to (Rusdiana, 2014, p. 374) inventory is materials or goods stored to fulfill a purpose, for example for use in the production or assembly process, for resale, or for spare parts for equipment or machines.

Rapid Application Development (RAD) according to McLeod is a life cycle strategy to provide much faster system development and obtain optimal results with better quality compared to the results achieved through traditional cycles (Mandang et al., 2020, pp. 49–50). The aim of Rapid Application Development (RAD) according to Sukamanto and Salahudin is to shorten the time required in the traditional system development life cycle between designing and implementing information systems (Rudianto&Achyani, 2020, p. 118).

III. RESEARCH METHODS

In this research the author used a qualitative descriptive research method. The qualitative descriptive research method is a method used by researchers to discover knowledge about research at a certain time (Mukhtar, 2013, p. 10). According to (Sugiyono, 2018, p. 213) qualitative research methods are methods that are based on philosophy, this method is used to research scientific conditions where the researcher is the key research instrument, data collection techniques and qualitative analysis where the emphasis is on meaning rather than generalizations .

The data used are inventory data, observation results, interview results, and documents or notes relating to inventory at PT. Navy Blue Indonesia. This data is collected in order to create an application so that the data is qualitative in nature. In addition, this research focuses on detailed descriptions and characteristics regarding user needs and problems that must be solved in designing the system.

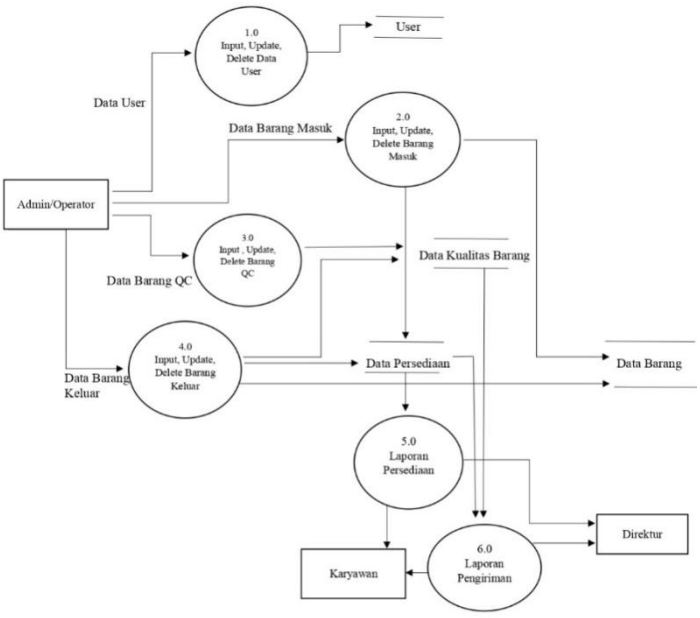
The results of this research will display original data without manipulation which is useful for solving problems in companies and producing fast and accurate inventory data.

IV. RESULT

Analysis of system requirements as a reference in designing this application is by analyzing user needs, where the users of this application are admins, employees and directors.

In the current information system flow above, there are several weaknesses, namely the current system still uses manual processes and has not been fully computerized. Starting from the input of goods to the output of goods, several problems occur which have been mentioned in the background above. Based on several weaknesses, the author provides suggestions regarding the current system so that the process is carried out computerized. The following is a proposed design for a web-based inventory information system at PT. Navy Blue Indonesia which the author has designed. Web-based information system flow at PT. Navy Blue Indonesia:

1. Starting with the vendor proposing a collaboration with PT. Navy Blue Indonesia
2. The company director proposes terms and agreement on the price per item during the contract period
3. The vendor agrees to the proposed requirements and then makes a cooperation contract according to the agreement
4. Vendor sends work agreement to company director PT. Navy Blue Indonesia
5. The company director receives the employment agreement then signs and makes a copy
6. The director sends the work agreement to the vendor and archives a copy of the work agreement document
7. The vendor sends goods which will be checked by the company in parallel during the contract period
8. The warehouse department receives goods, travel documents and shipping documents from vendors then inputs them into the application and stores them in the database
9. The warehouse department sends the goods to the warehouse department for checking
10. Wegan section receives goods and incoming goods data then carries out manual vision checks and ledwire cutting
11. Wegan section creates key point documents for goods that do not pass quality control and sends them to the Wegan section with goods that pass quality control
12. The warehouse department inputs quality control goods into the system and creates travel documents, shipping documents and attaches key point documents to be sent to the vendor
13. The vendor receives goods that have been checked in parallel during the contract period
14. The company director prints an inventory report from the database to the vendor
15. Vendor receives inventory report and creates a debit note then makes payment
16. The vendor sends a debit note and proof of transfer to the company director
17. The company director receives the debit note and proof of transfer then archives it, complete.



Picture 1. Web Design

V. CONCLUSION

Based on the research above that has been carried out by the author regarding the design of a web-based inventory information system at PT. Navy Blue Indonesia, it can be concluded that in this design the author used PHP Rad Classic, My SQL database, and 000WebHost. PHP Rad Classic is used to design data modeling according to the prototype desired by PT. Navy Blue Indonesia is for recording, managing and reporting inventory. The My SQL database is used because it is adapted to the company's large data needs and can be accessed using the internet so this database is suitable for use. Furthermore, 000WebHost is web hosting which is used so that the system can be accessed using the internet, so that the system can be used on mobile phones, laptops and computers connected to the internet. This system can be used by more than one user and can be accessed simultaneously. This system contains a database to manage goods data, goods quality data, and inventory data, goods transaction input to record transactions for incoming goods, quality control goods, and outgoing goods, and reports to create inventory reports and delivery reports. These features have been adapted to the prototype that the company wants to manage, record and report inventory. So it is hoped that this system can meet the company's needs and solve the problems found in the company.

Recommendation are companies should consider using a web-based inventory information system to make it easier for employees to carry out the inventory recording process and produce more accurate reports needed by the company so as to increase the efficiency and effectiveness of the company's operational activities.

If the company decides to implement this system, it is best for the company to provide special training regarding the use of this application in accordance with the manual book provided by the author to avoid errors and be able to run the application properly and correctly. Companies should check the system database and change passwords regularly in an effort to maintain the security of company data.

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