

DEVELOPMENT OF WEB-BASED GOODS STOCK RECORDING SYSTEM DESIGN: A CASE STUDY IN INDONESIA

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Abstract

In this day and age, technology is something that everyone uses in their daily activities. Web system technology has been widely used. Technology is a tool that can make it easier for users to carry out daily activities. Web System technology is one of the most active technologies in all companies. Pt Ingress Technologies Indonesia still uses the old method of using stock management using Microsoft Excel. This study aims to determine the stock of goods at PT Ingress Technologies Indonesia through the Web System. This research method uses a qualitative descriptive type of research used in this study to obtain an in-depth and comprehensive development of the inventory management record system at PT Ingress Technologies Indonesia. The results of this study are the recording system through the web system is very influential for an organization or company in their management, and in inputting data it is easier when using the web. The development of a recording system that will be carried out by the company through a web system must be realized immediately, in order to increase the effectiveness and efficiency of each employee in carrying out the recording system.

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1. Introduction

Warehouses play a crucial role in the success of a company's supply chain. A good warehouse should facilitate the achievement of its main objectives. PT Ingress Technologies Indonesia is a company that manufactures automotive components and operates in the trading sector, producing spare parts. Despite the rapid development of Information Technology and Information Systems, the warehouse activities at PT Ingress Technologies Indonesia have not yet implemented information system technology. Recording of goods, such as production output and items to be shipped, is still done manually using Microsoft Excel. As a result, the process of locating finished goods becomes time-consuming as employees struggle to find the desired stock items for customers. This manual recording leads to inefficiency in production activities.

Currently, technology is widely used by everyone in their daily activities, including the use of Web Systems. Web System technology is one of the most active technologies in all companies. A web-based information system is a set of interconnected components that function to collect, process, store, and transfer information in the form of text, images, sound, and hypertext, accessible by software to support organizational activities in achieving goals.

Based on the above explanation, the purpose of this research is to determine the stock of goods at PT Ingress Technologies Indonesia through a web system and propose the implementation of web system technology at PT Ingress Technologies Indonesia.

2. Methods

In terms of data type, the approach used in this research is descriptive qualitative research, intended to obtain in-depth and comprehensive development of the inventory management recording system at PT Ingress Technologies Indonesia through the web-based inventory management system.

The data collection methods used in this research are interviews, direct observation, and documentation. Based on the conducted interviews, the problems occurring in all warehouse activities were identified. The direct observation revealed that the current system used is manual and does not utilize a web-based system. The documentation results include stock data records and current condition photos of the storage warehouse, which serve as analytical materials for the development of the web-based system

The data analysis technique used in this research is a qualitative approach using the Miles and Huberman method to address the research objectives. The sequence of this method is as follows:

- a) Data reduction
- b) Data presentation after data reduction
- c) Drawing conclusions and verifying the next process

3. Discussion

A. Interview

Interviews were conducted with pre-determined informants. The results of the interviews were interpreted to draw conclusions.

a) To Facilitate Users

In this case, the use of a web-based system facilitates users in conducting recording activities compared to manual recording systems.

Table 1. Interview Result “Facilitate Users”

Can a web system facilitate users in conducting recording activities?		
Informants	Answer	Verbatim Aalysis
1st Informant (Sir Agus Fauzan)	The use of a web system makes it easier for users to perform their tasks, particularly in terms of recording activities. As known, manual recording systems can be time-consuming for workers to perform their tasks.	It has a significant impact on the recording system through the use of a web-based system.
2nd Informant (Sir Supriyanto)	Compared to manual recording systems, using a web-based system can facilitate and reduce the time for its users. Additionally, a web system can connect users without the limitations of distance or geographical boundaries.	Recording through a web-based system has a significant impact on its users.
3rd Academician (Sir Yusup Rachmat Hidayat)	In my opinion, in a web-based recording system, it would certainly be easier compared to manual recording systems.	It has a significant impact when using a web-based recording system.

b) The effectiveness of recording systems through a web-based system

Recording systems using a web-based system are much more effective and helpful for users who will perform their tasks.

Table 2. Interview Result “The Effectiveness of Recording System Through A Web-Based System”

Is the use of a web-based system effective within a company when conducting recording activities?		
Informants	Answer	Verbatim Analysis
1st Informant	A web-based system can make recording activities within a	The web-based system enhances the effectiveness of

(Sir Agus Fauzan)	company more effective and integrated among its users. Even when users are outside the office, they can access the web system through their mobile phones.	its users in performing recording activities.
2nd Informant (Sir Supriyanto)	The presence of a web-based system can greatly assist and improve the efficiency of workers in recording activities. Additionally, the completion of tasks using a web-based system is faster compared to manual recording systems.	The web-based system is highly beneficial and effective for its users.
3rd Academician (Sir Yusup Rachmat Hidayat)	Recording in a web-based system is more effective and efficient compared to manual recording systems.	Recording through a web-based system is more effective and efficient.

c) Obstacles of the recording system through a web-based system

Despite its ability to expedite and assist in recording activities, web-based systems also have their own obstacles.

Table 3. Interview Result “Obstacles of the Recording System Through a Web-Based System”

What are the obstacles that may be encountered when implementing a web-based recording system?		
Informants	Answer	Verbatim Analysis
1st Informant (Sir Agus Fauzan)	Recording through a web-based system has its obstacles, particularly in terms of network or internet connectivity, which needs to be consistently available.	The presence of network or internet connectivity obstacles can cause delays in the recording system.
2nd Informant (Sir Supriyanto)	The obstacles that occur when using a web-based recording system include the need for users to understand how to use the web system effectively.	Users also need to understand how to use the web-based system before conducting recording activities through it.
3rd Academician (Sir Yusup Rachmat Hidayat)	Recording systems using a web-based system still require data backups in case of any potential troubles or issues.	Recording systems in a web-based system should have data backups in case there are any issues with the web itself.

B. Direct Observation

The recording system through a web-based system can assist and support the performance of its users. In this case, using a web-based recording system is more effective and efficient compared to manual recording systems. Therefore, the web-based recording system is more integrated or connected among its users.

Discussion

a) Development of Stock Management Recording System at PT. Ingress Technologies Indonesia through Web-based Stock Management System

Based on the answers obtained from interviews with several informants, it can be concluded that the recording system through a web-based system has a significant impact on recording activities within an

organization or company. Therefore, many organizations and companies have implemented recording systems through web-based systems.

b) Obstacles in the Recording System through Web-based Systems

In this case, the recording system through web-based systems faces several obstacles, including the requirement for users to understand how to use the web system effectively, the need for consistent network and internet connectivity, and the necessity of data or file backups in case of issues with the web. These obstacles significantly impact the recording system in the web-based system.

c) Efforts to overcome obstacles in the recording system through web-based systems include

Based on the identified obstacles in the recording system through web-based systems, the author concludes the following efforts that need to be undertaken to address these obstacles:

- i. An organization or company should conduct trials or experiments on how to use the web-based system before implementing the recording system through the web system.
- ii. An organization or company must ensure a continuous network connection and internet connectivity to enable the uninterrupted use of the recording system through the web system.
- iii. Each user or user should have backup files to minimize potential issues with the web system.

4. Conclusion

Based on the research findings, the following are the conclusions derived from the data processing:

- a) Recording systems through a web-based system have a significant impact on the management of an organization or company, and data input is easier when utilizing such a web system.
- b) Recording systems through a web-based system are more effective and efficient in company activities, and they can enhance employee performance.
- c) Recording systems through a web-based system are highly integrated with all users, as each user can access the recorded data through the web system, making it easier to search for information

References

- [1] K. D. Barber and R. H. Hollier, "The effects of computer-aided-production-control systems on defined company types," *International Journal of Production Research*, pp. 311-327, 2007.
- [2] A. Dioni and B. D. Andah, "Perancangan Sistem Informasi Inventory Barang Berbasis Web pada Universitas Budi Luhur," *IDEALIS : InDonEsiA journal Information System*, pp. 31-38, 2019.
- [3] A. Premana, "Rancangan Bangun Sistem Informasi Inventory Barang (Sinbar) Berbasis Website," *Jurnal Ilmiah Intech : Information Technology Journal of UMUS*, pp. 51-61, 2019.
- [4] M. M. Purba and C. Rahmat, "Perancangan Sistem Informasi Stok Barang Berbasis Web di PT Mahesa Cipta," *JSI (Jurnal Sistem Informasi Universitas Suryadarma)*, pp. 123-158, 2021.
- [5] P. H. Sutanto, "Perancangan System Stok Barang di Warehouse Berbasis Web," *Jusikom : Jurnal Sistem Komputer Musirawas*, pp. 9-18, 2019.
- [6] R. P. Wicaksono and A. Widodo , "Sistem Informasi Persediaan Barang Berbasis Web pada CV Patriot Kencana Medika Kudus," *Jurnal SIMADA (Sistem Informasi dan Manajemen Basis Data)*, pp. 42-50, 2020.