Web-Based Inventory Information System For Monitoring Stock, At PT. Sarah Ayu Semarang Branch

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Abstract . PT. Sarah Ayu Semarang Branch is a company that operates in the rental and sales of children's toys. To fulfill the wishes of several outlets in Semarang, the company has a storage warehouse, but the documentation currently used is still simple by recording stock of goods by looking directly at the existing goods, calculating using a calculator and recording it in a book as a report to the management. In this way, differences often occur between real (real) goods stock with monthly goods recording from the head office. This research discusses a web -based inventory information system for monitoring stock at PT. Sarah Ayu Semarang Branch. By designing an application that is capable of processing, documenting, calculating order transactions, and storing inventory in the warehouse. By having minimum stock and maximum stock, the company can find out the amount of inventory that is running out and over stock, while the company can easily find out the final stock amount of goods in the warehouse. Web- Based Inventory Information System is also really needed in companies to help warehouse divisions, administration and leaders in making decisions. To build the system using the PHP programming language MYSQL database . With this inventory information system, it is hoped that the company will be able to carry out planning in making decisions and monitoring inventory properly, and be able to carry out stock control functions including items that are running out or over stock , while also being able to produce reports that are accurate, fast and precise.

Keywords : Information Systems, Inventory, Web , Monitoring , Stock .

1. INTRODUCTION

PT. SARAH AYU SEMARANG BRANCH who is currently renting a place at the company PT. Sahita Guna, whose address is Jl. Majapahit No.325 Semarang, is a company engaged in the sale and rental of toys, including: scooters, roller skates and others. The inventory data processing system is still manual by recording in books. In managing data like this, there are still many shortcomings, namely that it is susceptible to data loss or data damage and the possibility that data can be manipulated and making reports to leadership still takes quite a long time. If at any time the management needs stock data and reports on goods in and out data cannot be provided quickly, because they have to be calculated and recapped manually first. Cannot monitor stock of goods from time to time because goods reports are done once a month. In the absence of a web-based database in the company, leaders cannot access up to date information. With the new information system, we are able to provide inventory reports quickly and accurately, and provide up to date notifications regarding out-of-stock and out-of-stock items. exceeds the maximum limit so that the inventory of goods in the warehouse is more effective, the level of security is

guaranteed by having a password when entering the system. With a Web-based database, each user will be more effective when working.

2. THEORETICAL FOUNDATION

A. System

According to Sutarman, 2012. A system is a collection of elements that are interconnected and interact in one unit to carry out a process of achieving a main goal.

According to Taufiq, 2013. In order for a system to be said to be a good system, it must have several characteristics and can be classified from several points of view. The system characteristics and classification are as follows:

1) System Characteristics

   a) Component

   A system consists of a number of components that interact with each other, and have the meaning of working together to achieve a common unity.

   b) System Limitations

   A system boundary is an area that limits a system to other systems or its external environment.

   c) External System Environment

   The external environment of the system is anything that exists outside the scope or boundaries of the system that affects system operations.

   d) System Liaison

   The system liaison is an intermediary medium connecting the system with other subsystems.

   e) Enter System (*Input*)

   System input is energy entered into the system in the form of maintenance (*maintenance input*) and signals (*signal input*).

   f) System Output (*Output*)

   System output is the result of energy processing and has been classified into output that functions out and can take the form of input for other systems.

   g) System Processing (*Process*)

   System processing is a system that is part of the processing itself as the processor will convert *input* into *output* .

   h) System Goals

   A system must have a goal or target. System goals really determine *the input* required and the output that the system will produce.

2) System Classification

a) Abstract Systems and Physical Systems

An abstract system is a system that contains thoughts or ideas that are not physically visible. While a physical system is a system that can be seen and held physically,

b) Natural and Man-Made Systems

Natural systems are systems that occur naturally and are not created by humans. Meanwhile, man-made systems are systems created by humans.

c) Deterministic Systems and Probabilistic Systems

A deterministic system is a system whose operation can be predicted according to targets. Meanwhile, a probabilistic system is a system that is unpredictable and contains elements of probability.

d) Closed Systems and Open Systems

A closed system is a system that is unrelated and unaffected by the external environment. Meanwhile, an open system is a system that is connected to and influenced by the external environment.

B. Information

Information is data that has been classified or processed or interpreted for use in the decision making process (Tata, 2012).

According to Jogiyanto HM, 2012. Information can be said to be valuable if the benefits are more effective than the cost of income. Information can be said to be meaningful and of high quality for the user. The information characteristics are as follows;

1) Accuracy and verifiability, meaning that the information must be completely free from errors and not misleading.

2) Perfection of information must be complete

3) Timely, meaning that information must be timely because it is used as a basis for decision making.

4) Benefits, namely information will have high benefits if received by the party who should receive it and will be useless if received by parties who do not need it.

5) Easy and cheap, that is, methods and costs are taken into consideration in the information. If the costs incurred are in line with the expected benefits, then the information will be very useful. Ease of information also needs to be considered.

C. Information Systems

Basically, an information system is a system created by humans consisting of components in an organization to achieve a goal, namely presenting information. An information system is a system within an organization that meets needs. An information system is a computer application

that supports company operations where this information system is a collection of *hardware, software, brainware* , and procedures where the aim is to manage information. Information systems consist of two words, namely system and information, each of which has a separate definition (Kadir, 2014).

An Information System is a system within an organization that brings together the needs for managing daily transactions, supporting operations, managerial and strategic activities of an organization and providing certain external parties with the necessary reports (Tata, 2012).

D. Supply

Inventory is an asset that includes goods owned by a company with the intention of being sold within a certain business period, or inventory of goods that are still in progress or in the production process, or inventory of raw materials awaiting use in a production process (Rangkuti F, 2015). There are several benefits of inventory, namely as follows:

1) Eliminates the risk of delays in goods that the company needs at that time.
2) Maintaining the company's operational stability or ensuring the smooth flow of production.
3) Eliminates the risk that the material ordered is not good and must be returned.

3. METHODOLOGY

web- based inventory information system application for Monitoring *Stock* at PT. Sarah Ayu Semarang Branch. The method used in research, namely educational research and development (R&D), is a process used to develop and validate educational products. The steps in this process are generally known as the R & D cycle, which consists of: reviewing the results of previous research relating to the validity of the components of the product to be developed, developing it into a product, testing the designed product, and reviewing and correcting the product based on test results. This is an indication that the findings from the development activities carried out have objectivity.

In learning technology, descriptions of development research procedures and steps have been widely developed. Borg & Gall (1983) stated that development research procedures basically consist of two main objectives, namely: (1) developing products, and (2) testing the effectiveness of products in achieving objectives.

The first objective is referred to as the development function while the second objective is referred to as validation. Thus, the concept of development research is more accurately defined as development efforts which are simultaneously accompanied by validation efforts. (Borg and Gall, 1983) proposed a series of stages that must be taken in this approach, namely:

1) *Research and information collecting.*
2) *Planning.*

3) *Develop preliminary form of product.*

4) *Preliminary field testing.*

5) *Play product revision.*

6) *Main field testing.*

7) *Operational product revision.*

8) *Operational field testing.*

9) *Final product revision.*

10) *Dissemination and implementation.*
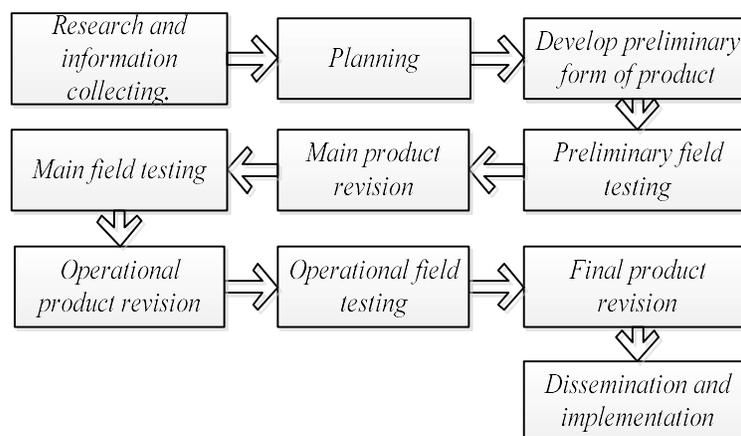
Below is Figure 3.1 flow of the method (R&D)

Figure 3.1 *Research and Development flow* in 10 stages (Borg & gall, 1983)

Of the 10 (ten) stages above, the author only uses 6 (six) stages, first *research and information collecting* to the *main field testing stage* .

4. RESULTS AND DISCUSSION

A. Results

The following are the results of the execution of the PT inventory information system program. Sarah Ayu Semarang Branch.

Admin and Warehouse Main Menu Form Design Image
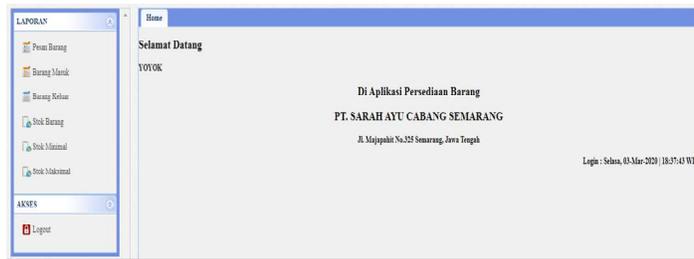
Leadership Form Design Image

The main menu function is used to display and select all the contents of forms used for data collection, processing and *logout* .
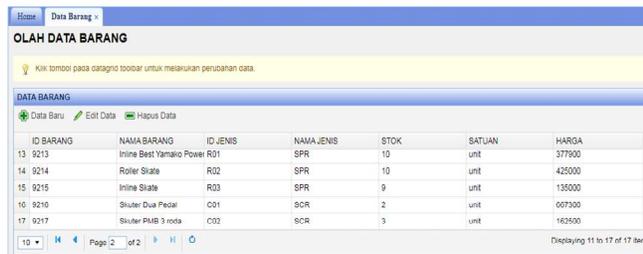

Image of Item Data Menu Form

Image of Stock Report Menu Form

Image of Stock Report

Image of Goods Order Transaction Menu Form

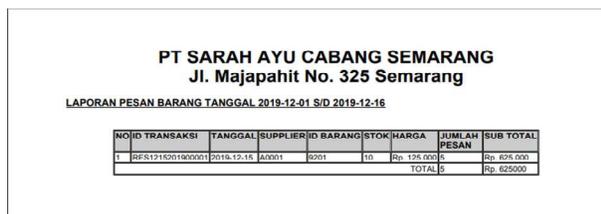Image of the Goods Order Report Menu Form

Image of Order Report/Order Goods

Image of Incoming Goods Transaction Menu Form
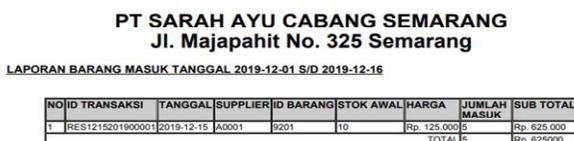

Image of Incoming Goods Report Menu Form

Image of Incoming Goods Report

Image of Outgoing Goods Transaction Menu Form

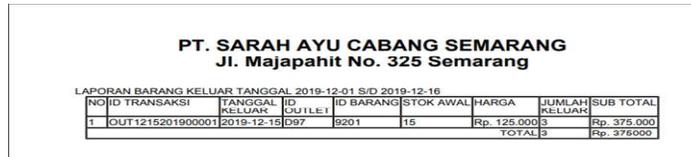Image of Outgoing Goods Report Menu Form

Image of Outgoing Goods Report

B. Discussion

Based on the results of validation trials carried out by experts and users, there were differences of opinion regarding the manufacture of the final product. This can mean that the conclusions of expert experts may not necessarily represent the opinions of *users* . Likewise, conversely, a user's conclusions *cannot* also represent the opinion of an expert. The final discussion regarding products that have been validated by experts and users.

a. Internal or Expert Expert Opinion

1) Comments and Improvement Suggestions

With the validation test, experts provided comments for immediate improvements, the comments that have been given are as follows:

a) Slight improvements *to the Flowchart* / *Flow Of Document* (FOD)

b) Improvements to *the Entity Relationship Diagram* (ERD)

2) General Assessment Conclusion

The results of the general conclusions are that the experts concluded that the product created by the author can be used with slight revisions, so the author must make improvements to the product. This indicates that the value given by experts regarding the product produced by the author is

good, but can be used with slight revision. These are the results given by experts regarding the products made by the author.

b. External or User Opinions

The general assessment conclusion after trying to use the product that the author has created, the user concludes that the product created by the author can be used at PT. Sarah Ayu Semarang Branch.

From the two opinions above, it is clear that there is a significant difference of opinion. The author can conclude that the world of work is wider than the world of education. This also has an impact on the product, which will make the product even better when compared to before carrying out the validation test.

5. CONCLUSION

Based on the analysis and discussion carried out in the previous chapter, the following conclusions can be drawn:

1. A computerized *database accounting information system* makes it easier to input data and create reports more quickly and accurately.

2. With an information system, all data is stored in *a database.*

3. Reports can be generated automatically and can be reported at any time.

4. Make it easier for employees to collect data so that there is no accumulation of data, errors in data input, thus making data searches and service systems faster and more efficient and maximizing employee performance in data storage, especially in making reports.

BIBLIOGRAPHY

Borg, Walter R., & Gall, M.D. 1983; " *Educational research: An introduction (4ed)* " , New York & London: Longman

Jogiyanto HM, 2012; " *Information Systems Analysis and Design Structured Approach Theory and Practice of Business Applications* ", Yogyakarta: Andi Offset

Kadir, Abdul, 2014; " *Introduction to Information Systems Revised Edition* ", Yogyakarta: Andi Yogyakarta

M. Rudyanto Arief, 2011, " *Dynamic Web Programming Applications with PHP and MySQL* ". Yogyakarta, Gava Media

Rangkuti F., 2015; " *Application Inventory Management in the Business Sector* ", Jakarta: Erlangga.

Sadeli, Muhammad, 2011; " *7 Hours of Interactive Dreamweaver Learning for   Lay   People   * ", Palembang: Maxikom.

Sutarman, 2012; " *Introduction to Information Technology* ", Jakarta: PT. Literary Earth.

Tata Sutabri, 2012; " *Information Systems Analysis* ", Yogyakarta: CV. Andi Offset

Taufiq, 2013; " *Management Information Systems Basic Concepts, Analysis and   Development Methods* ", Yogyakarta: Graha Ilmu.

Terry, George R., 2012; " *Management Principles* ", Jakarta: PT. Literary Earth

Jaelani, Ahmad, 2011; " *Designing a Web-Based System for Admission of Prospective New Students at SMK Putra Rifara Tangerang* ", Tangerang: STMIK Raharja.