Information System Design of an Inventory Online Website

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Abstract. The purpose of this research is to design an information system of an inventory online website that can replace manual process in supporting the fulfillment of information requirement, assist data processing with computerization, and assist the processing of stock data, materials and orders using computer media. Prototype method was used to develop the system. The method used in this paper was descriptive analysis method related to online inventory of warehousing system. The goal is to produce an information system of an inventory online website in the form of warehouse information system that can be accessed through computer application. Therefore, this research is done by discussing the flow map of running warehousing system and proposed warehousing system. Information systems that work should be able to facilitate the company as any process that is running in the company, with the information system in inventory activities can replace the manual process is very supportive of the fulfillment of information needs relatively fast, accurate and keep up with the times, errors due to duplication with the validation of data, and can facilitate the processing of stock data, materials & orders using computer media, so as to improve services to all parties who need data quickly.

1. Introduction
The Internet is a global communication medium that is increasingly being used worldwide as an innovative tool for marketing goods and service [1]. In addition to setting a vision of the company, utilizing Information Technology is also an important thing for the success of a business. [2] Colicev et al. elaborated that Social Media affects Brand awareness, purchase intent, and customer satisfaction [3].

Meanwhile, one of the forms of current technology use is the web, which is a dynamic and diverse collection of documents, or a social networking site that can record various information from any actions performed by members or its users and then produce relevant data. [4, 5] To promote the association or group of family members in order to encourage the company's brand, it must be driven by motives relating to identity such as pride and identity [6] Accorsi et al. which explained that warehousing systems have an important role to provide efficiency and customer satisfaction. [7] While Gu and Medinnis explained that the basic function of warehousing is for the process of receiving, storing, order-taking, and delivery [8].

Research conducted by Maind et al. against Ordering System Room found that to overcome the error in ordering food, and improve the efficiency and accuracy of restaurants in saving time for service and ordering can use a technology-based ordering system through smartphones and tablets. [9] While research conducted by Pan et al. explains that for faster delivery systems it takes a pick-and-pass system as the emergence of e-commerce and e-business in global supply chains [10].
From some understanding and the results of previous research it can be seen that the use of information systems on inventory transaction activities is needed. Therefore, this study was conducted with the aim to build information systems that can help the transactional and administrative systems in the business of inventory, using quantitative methods with the tools used are flowmap and context diagram. So that awakening a system that can help the consumer and the inventory in the transaction process.

2. Method
The method be used in system development in design is by using prototype, to get detail without a clear picture from a consumer, and use flowmap diagram, to analyze a system (See Figure 1).

![Figure 1. Prototype Model](image)

3. Results and Discussion
In the inventory business activity, then first create a flow map system that is running, as follows:

a. Make Order of goods in the message.

b. If the stock of order goods there, will proceed to the transaction process, if the stock of order goods does not exist, the production will make the goods according to order.

c. If the raw material of the order goods is insufficient or insufficient, the Warehouse will get the raw material from the supplier.

d. The Supplier will send the material stock to the Warehouse section, and the Warehouse section will update the stock of the raw materials.

Order goods data in production by the production will be given to the admin to do the sale and purchase transactions.

From the system to be proposed, the warehouse information system that can be accessed through computer applications because it has been based software or computing, the user only requires a computer that has local connection facilities, so that each staff can more easily to find information about the data stock glasses , materials, and daily order and other facilities. The description of the proposed system as follows:

- The staff can directly input stock data through the application to update.
- The staff can see the goods information by getting the information quickly and accurately.
Existing facilities other than the above are information about the order data making it easier for the admins to make receipts and update the same stock (See Figure 2).

![Figure 2. Data Flow Diagram.](image)

Relations between tables are a process of grouping tables that have attachments to each other (See Figure 3).

![Figure 3. Table Relation.](image)

The context diagram explains below a diagram that shows an entry of data and exits its data. Here is an overview of the ongoing service manual system. Here's an ongoing inventory:
• Inner Entity: Administration
• Outer Entity: Buyer of Warehouse and Supplier Section
• Process: Checking the completeness of requirements, making a request letter, and doubling the request letter (See Figure 4).

![Figure 4. Context Diagram (Level 0).](image)

After creating a context diagram, the next step is to provide inventory data that is still present in the storage warehouse, with detailed details of the product, such as goods code, item name, and quantity of goods and price of goods (See Figure 5).

![Figure 5. Inventory Data.](image)

After making detailed data about the products that are still available, the next is to make a detailed data about the new raw materials available in warehousing for the process and produced into products needed by consumers (See Figure 6).
Then the next step is to make a detailed data about the old raw material or that is still available in the warehousing that can be used for the next production process (See Figure 7).

![Figure 6. New Material Data.](image1)

![Figure 7. Old Material Data.](image2)

After collecting data on the stock of goods and raw materials that are still available, then the next is to make data orders from products, in order to produce goods in accordance with consumer demand, so that the stock of goods available does not exceed demand (See Figure 8).

![Figure 8. Order Data](image3)

General description of the system to be proposed, namely the warehouse information system that can be accessed through online applications that can be opened from the gadget or computer, the user only requires a computer that has local connection facilities, so that each staff can more easily to find information about the data stock glasses, materials, and daily order and other facilities. The description of the proposed system as follows:

- The staff can directly input stock data through the application to update.
- The staff can see the goods information by getting the information quickly and accurately.
- Existing facilities other than the above are information about the order data making it easier for the admins to make a receipt and update the glasses stock (See Figure 9).
4. Conclusion

Information systems that work should be able to facilitate the company as any process that is running in the company, with the information system in inventory activities can replace the manual process is very supportive of the fulfillment of information needs relatively fast, accurate and keep up with the times, errors due to duplication with the validation of data, and can facilitate the processing of stock data, materials & orders using computer media, so as to improve services to all parties who need data quickly.

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