Design of Web-based Online Sales Information System

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Abstract. The purpose of this research is to create an online information system design of web-based sales to provide a convenience for people, to promote their products, and make consumers easier to obtain information about the desired product. The method used in this study is the waterfall method. This method was used to develop the software system that has a groove on a regular basis starting from analysis, design, coding, and testing. The development of online sales site can trigger a business in any field in the virtual world. Based on the research results, website development is important to address today's business competition, especially sales of products in the conduct of transactions ranging from product orders, storing product data, change data, and delete data products. This research also provides real-time stock information, such as stock availability of goods to the sales report.

1. Introduction

Internet is a tool to get information especially for businesses to promote their products, for example in the buying and selling process [1]. With the development of technology, people who did business traditionally have to start an Internet business based to support the process of buying and selling goods [2] since consumers want to a transaction at ease [3]. The other reason businesses move into online business is the started emergence of competitors. However, the factors that affect business is the need to understand consumer behavior in shopping [4]. Factors that affect consumers in shopping is depend on the intentions and behavior of business actors in conducting business [5]. In addition, benefits to consumers in shopping through online delivery of the product are that they are saving their time [6].

The promotion process at this time is relatively faster and easier. Social media have fundamentally changed the way for communication, collaboration, consumption, and creation [7]. Social media as a medium of information enables businesses to promote their products in a cost relatively little and easy. The advent of Internet-based social media is to support consumers communicate with ease [8]. With the social media, the impact of communication between consumers and businesses greatly increased.

Shopping online allows businessman to talk directly with consumers that need the information about the desired product [9].

The purpose of this research is to design a web-based sales information system. Based on our research, website development is important to address today's business competition, particularly in conducting transactions ranging from product orders, store product data, change data, and delete the data product [10]. This study also provides stock information in real-time, such as stock availability of goods to sell report.

2. Method

The method used in this study is the waterfall method. This method was used to develop the system - the system software that has a groove on a regular basis starting from analysis, design, coding, and
testing. The system is designed using the Unified Modeling Language, the programming language PHP, and MySQL database (See Figure 1).

![Figure 1. Method Waterfall](image)

3. Results and Discussion
The initial phase of system design is to make a booking system in flow map. The consumers can choose the products to be purchased and administrators make the reservation list and given to the warehouse. Therefore, the warehouse will inspect the goods if the goods are available, then admin create two records, one is given to the consumer and one more for the archive (see Figure 2).

![Figure 2. Ordering Flowmap](image)
After conducting future bookings flow map or make payments online business transactions. Payments initiated by admin leave a memorandum payment stage to the consumer, then the customer do the service through a bank account and send a proof of payment. The admin will check the proof later. If there is proof of payment, then the admin will notify the customer. The procedures of this website system are further described using data flow diagrams (see Figure 3).

**Figure 3. Payment Flowmap**

Data flow diagram in Figure 4 is to describe the process of user flow to make the process of changing the profile as well as the password change process.
The data flow diagram below follows the administrator's flow process for managing master data. For example is managing product categories, product types, provinces, cities, orders, and etc, (See Figure 5).
Figure 5. Data flow diagrams level 2 process 5.0

In Figure 6 the data flow diagram illustrates the online sales process, where products sold will be included in the shopping cart. If the order process is complete, the product will enter the shipping stage.
The next detailed process is to update the category data. If the next step is found, the administrator can make the process of change or delete the category (see Figures 7-9).

Figure 6. Data flow diagrams level 2 process 6.0
Figure 7. Data flow diagrams level 3 processes 5.1

Figure 8. Data flow diagrams level 3 processes 5.2
Figure 9. Data flow diagrams level 3 processes 5.3

4. Conclusion
The data collected shows that consumers want a sales system that looks attractive and easy to use. The website is also used as a marketing tool for the businessman.

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