Designing website for online business in the agricultural sector

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Abstract. The purpose of this research is to discuss designing a website for agriculture so that it can help with every process in marketing in the agricultural sector. The method used in this study was a descriptive method to help describe the entire picture to be easier to understand, supported by several references related to websites and online businesses from several journals and books. The results of this study are a website to improve and win the business competition as a field of promotion and sales of production. In the process of using e-commerce buying and selling activities or more efficient marketing where the use of e-commerce will show the ease of promotion, transactions, cost reduction, and speed up the transaction process.

1. Introduction

Along with the development of the business world, websites in the form of e-commerce are already a necessity of a business to increase trading activities and marketing more efficiently, where the use of e-commerce will facilitate promotion, transactions, cost reduction and speed up the transaction process [1]. The Internet and e-commerce have opened up exciting new opportunities for supply and demand for agricultural commodities in developing countries. Actors in various fields, especially in industrial and agricultural companies from these countries, have used the Internet and electronic platforms in multiple forms [2]. The cycle of goods and services has a short life cycle, no longer talking the year even measured by months, days, or even hours. Consumers want quality, cheap, easy to get, fast delivery, and excellent after-sales, so a website is created to speed up the sales process [3]. Consumers want quality, cheap, easy to get, fast delivery, and excellent after-sales service. The web sites have to be attractive to attract consumers. The website is the primary contact point for buyers online, so it can influence consumer decision-making to shop products offered online in the future [4].

E-commerce relations and farmer background have a significant relationship, with the adoption of e-commerce for agriculture have a factor of customer support strongly related to the implementation of agricultural e-commerce practices [5]. Moreover, Han and Jing Mu concluded that improving the cognitive level of consumers and attracting consumers' attention was necessary for e-commerce platforms. The results showed that consumer product knowledge had a positive effect on consumer purchase intentions [6]. The development of e-commerce is an innovative way to influence the system of market access for small farmers [7]. According to agriculture officers in Malaysia, the use of agricultural agency websites is very good in disseminating communication technology in the farm sector in spreading the latest knowledge and information dissemination through agricultural agency websites so that agricultural practitioners are able to keep up with current developments, and problems from the agricultural sector is much easier [8]. The Internet has become the most effective means of promoting and increasing purchases through product promotion and the provision of information that may exist

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before being sales [9]. Before making a model of agricultural development, it is necessary to develop the e-commerce world of the farm business to improve and face business competition as a field that assists the promotion and sale of production [10]. The importance of personal valuation carried out by consumers as a user specific factor will significantly influence online purchase intentions because this provides a causal relationship between display design in the context of online travel purchases [11]. However, to increase the use of websites in the agricultural sector, it requires special consideration of users. A previous study showed that the primary need for website users is access to reach the information that is fast and relevant so that the website built must be able to filter information that is excessive and irrelevant to provide accurate information to consumers [12].

The purpose of this research is to facilitate farmers in the sales process of production, ease in promoting, transacting, reducing costs and speeding up the transaction process, and reducing errors from humans. The descriptive method to help describe the overall design of website-based e-commerce. Moreover, using previous research that can help design website-based e-commerce for the agricultural sector.

2. Method
This study used descriptive method to help describe the overall design of e-commerce based websites. This study also used previous research related to the development of e-commerce, that could help design website-based e-commerce for the agricultural sector.

3. Results and discussion
In this process, the author makes a system that is proposed to meet the needs in the field of web-based sales, or the term E-Commerce performs planning and analysis first before working on, such as simple structured analysis in concepts. In this analysis describes a series of processes in the form of data flow diagrams that illustrate existing or proposed methods together with input, process, and output.

The structured method includes the design process model, notation to represent the design, report format, rules, and guidelines; although there are many methods, they have many similarities. The structured approach can support several or all of the following system models. The proposed context diagram aims to show how the process will be made by the author regarding the sales process using interrelated symbols. Below is figure 1, which explain the proposed context diagram.
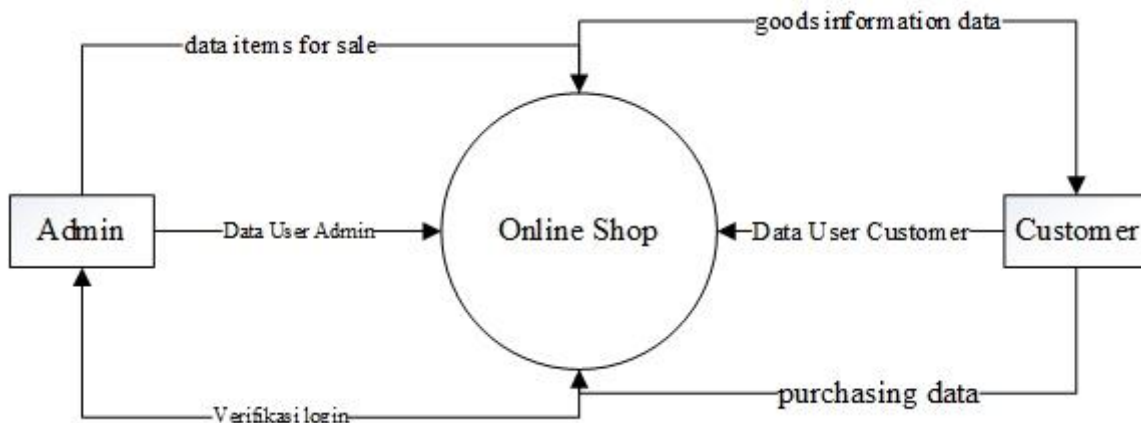

Figure 1. Proposed context diagram.

Figure 2 describes the procedures for registering goods. Admin will log in before proceeding. After logging in, the admin can register a new product. After registering, the system would verify, then, displayed the item.

Customers log in first then they can search for the product. After selecting the product, the system will provide product information. Then the customers fill in purchase information; after making a purchase, the purchase data will be sent to the database and saved
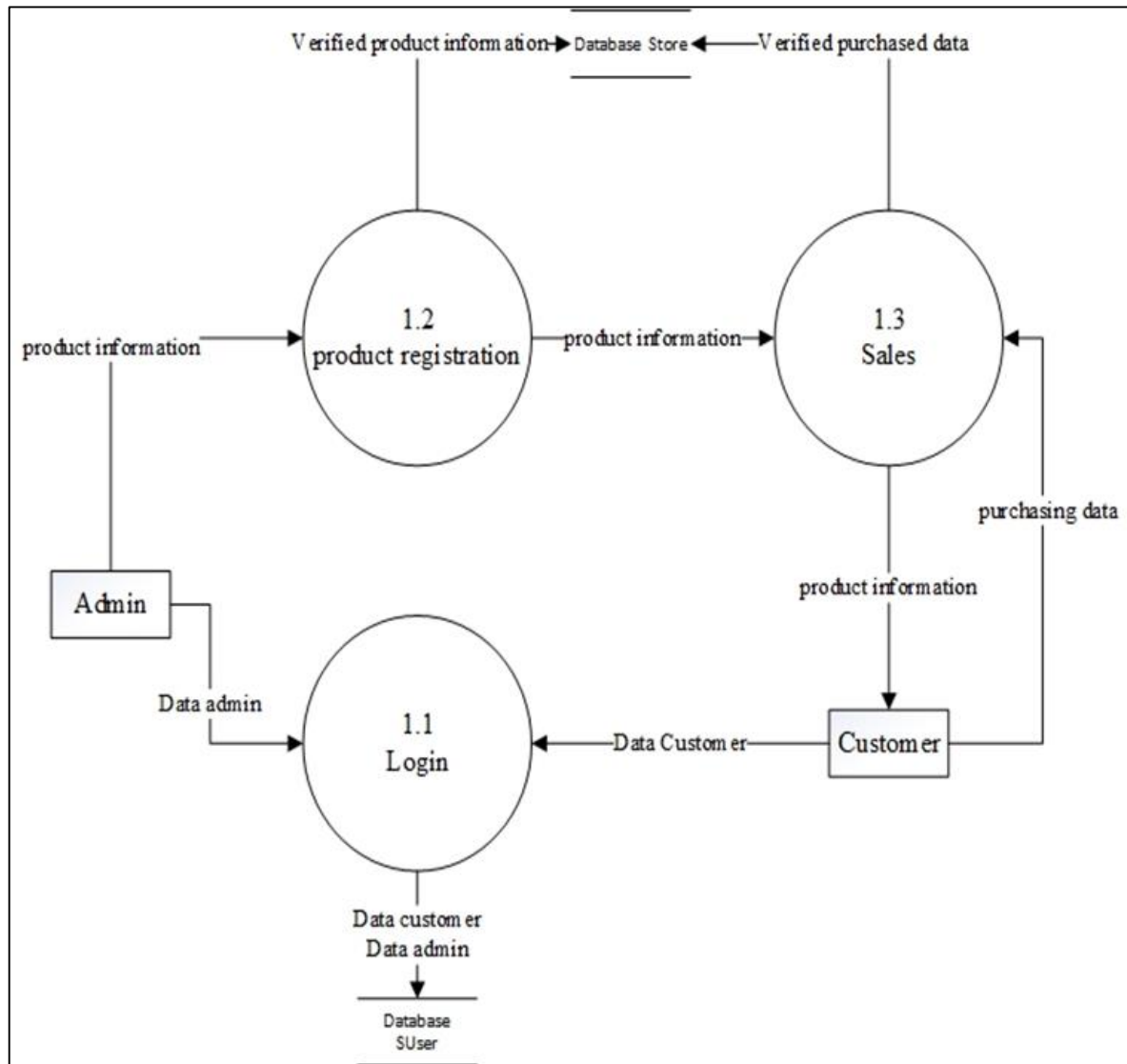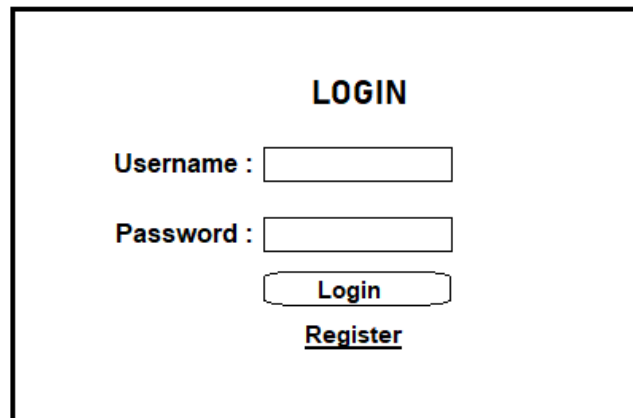

Figure 2. Data flow diagram.

This user interface design is friendly for the customers to use the system. The user will know the process of input and output in the system. Figure 3 is a login menu consisting of a username and password to be filled by the user after supplied username and password. The user can click the login button; after that it will go to the main menu.
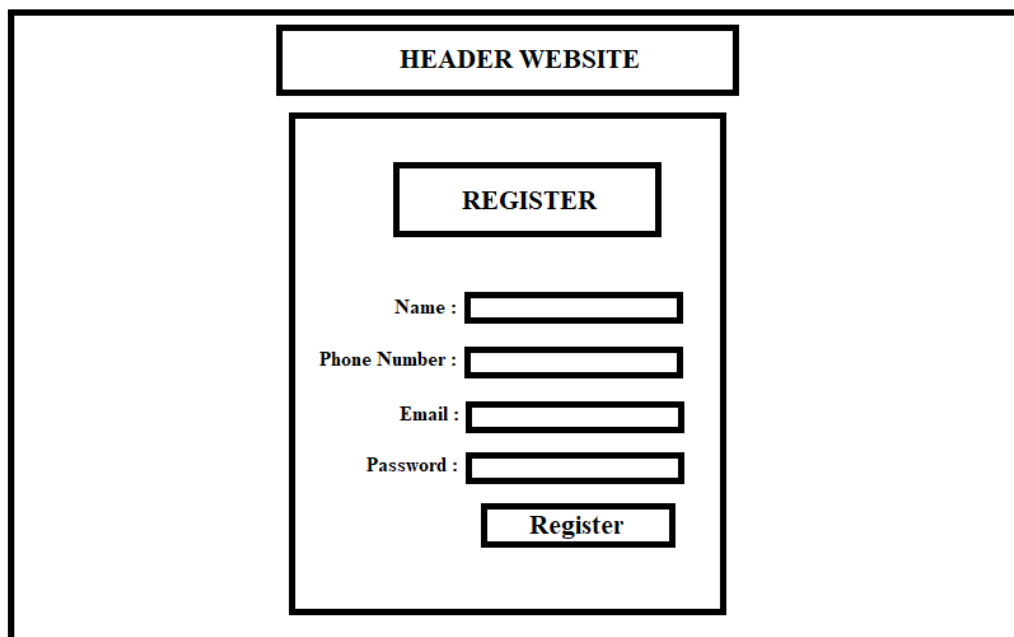
Figure 3. Login menu.

Figure 4 shows the register account menu. The user must register before checking the website. The user fills in the name, the phone number, and email address. To get more information about the site, the user should fill in the password for account security.

Figure 4. Register account menu.

Figure 5 shows the main menu. The main menu has several parts, which consist of home, category, profile, search, shopping cart, and display of product sales. Home thumbnail to direct the user back to the main view. The category thumbnail to select the items. The profile if the customer wants to edit the data. And search to find the desired item. The shopping cart to see what things in the purchase list. Display of product sales to display what products are sales.
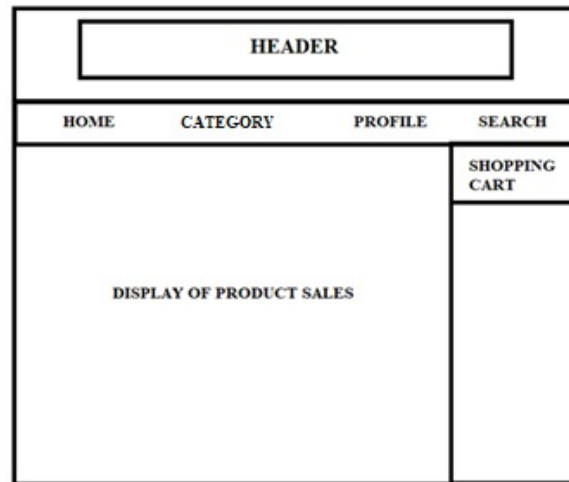
Figure 5. Main menu.

Figure 6 shows a payment menu. The user must fill in the shipping address. In this menu, the customer can see the picture of the item being purchased. The customer can also see the payment list. After the buyer understands all available information, the customer can click button pay to finish the payment.
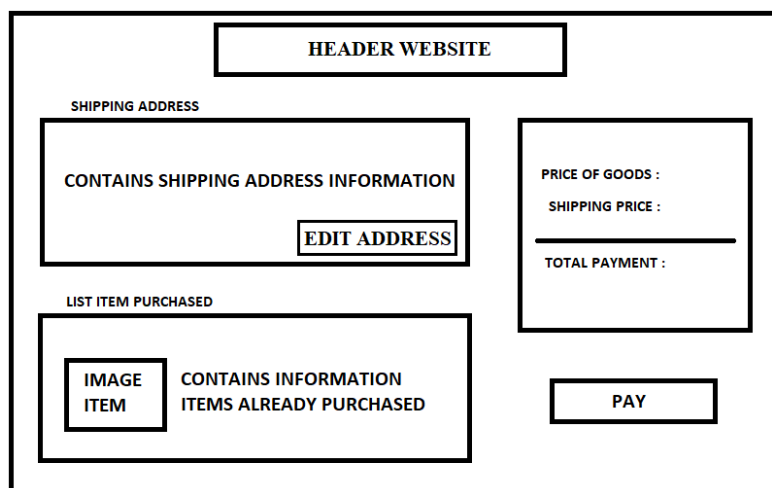

Figure 6. Payment menu.

The power of e-commerce is how the web interface attracts potential buyers. As happened in the field of tourism, display design is an essential factor in attracting buyers through tourism in the tourism sector [11]. Another critical factor is the site manager and related parties, in line with research result in Malaysia that the use and quality of agricultural service sites are crucial in disseminating information technology in the farming sector [2].

The design for e-commerce agriculture includes the registration to the delivery of agricultural products. In general, e-commerce in agriculture in Indonesia is still lagging with other business sectors. The same thing happened in China, problems with e-commerce in agriculture include (a) low levels of agricultural information; (b) little awareness in the use of e-commerce; (c) an incomplete e-commerce environment (d) the variety of farm products [13]. Therefore, e-commerce in agriculture must follow an evolutionary dynamic model to be able to keep up with the continuous changes in the economic environment.

4. Conclusion

Along with the development of today's business world, websites in the form of e-commerce were already a necessity of a business that had advanced at this time for business development in the agricultural sector. The internet and e-commerce had helped in facilitating the development of agriculture in developing countries. With this e-commerce system, consumers and producers were expected to be more comfortable in the process of buying and selling, and transactions became more accessible and faster.

Acknowledgment

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