

## Innovative Marketing in Fashion E-commerce

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**Abstract.** The purpose of this research is to design a website-based fashion e-commerce information system. This research used a descriptive analysis method. We are going to identify the business needs and design systems that are appropriate. The user interface structure is divided into the User Menu Structure and Admin Menu Structure. The admin enters the data items to be sold through the Product Category Data Input Form page and Product Data Input Form Page. The results of this study are the system can present a Sales report that presents the number of product sales. The features provided on the website that are designed include product search features, account and information security, as well as shipping and payment confirmation. This web-based sales system can be used by sellers to reach a larger market and can facilitate the transaction process.

### 1. Introduction

The development of information technology is growing rapidly and popular, not only enjoyed by professionals but also felt to have spread to all walks of life. Therefore, we can obtain the required information quickly and relevantly. The presence of internet technology in the world nowadays has a big impact on all fields, one of which is sales [1]. Many companies or business entities use website media to sell their products. In the business field nowadays, the development of increasingly sophisticated technology has led to the emergence of many competitors with the development of new ideas. Thus, consumers are expected to be more sophisticated in terms of choosing. Companies compete to survive in the competitive business field nowadays. Based on these facts, making a sales information system that utilizes the internet as the main media in sales will be very influential in promoting products. Existing products cannot only be enjoyed by regional customers but can also be enjoyed on a national and even international scale. By creating a website, the seller can make an online catalog, which can be seen by buyers without having to leave their homes. This has the advantage of both the buyer and seller, one of which is that the buyer can save costs and time because they can make purchases without leaving their home. As for the seller, it can save costs for making a store that requires a nominal amount that is not small.

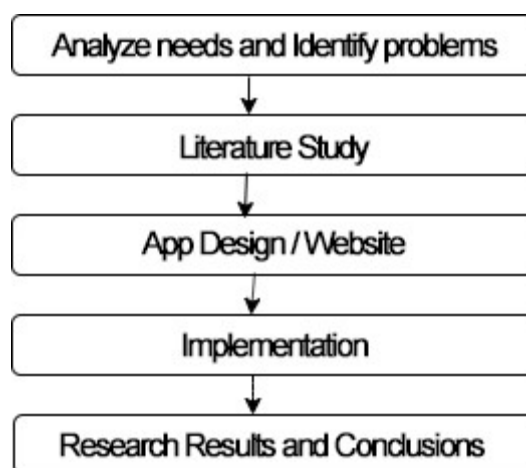
Because of the large opportunities to market products through websites, various studies on e-commerce website design have been carried out. For example, studies about web-based ordering system design for goods in manufacturing companies and e-commerce strategies in business to increase profits [2, 3]. This research is a continuation of two previous studies that have been conducted.

The purpose of this research is to design a web-based fashion e-commerce information system. This research used a descriptive analysis method. This research identifies business needs and design systems that are appropriate for this business. A user-friendly interface structure made to make it easier for both users and admins. The features provided on the website that are designed include product search features, account and information security, as well as shipping and payment confirmation. With this system, it is hoped that customers can easily obtain product information,

facilitate customers in making transactions, shorten transaction time and improve the accuracy compared to recording transactions manually. By utilizing this media, it is expected to benefit both parties, namely customers and sellers [4].

## 2. Method

The method used in this research is a descriptive analysis method. This paper discusses the problems, present the analysis, conclude with conclusions, and provide appropriate advice [5]. The study was planned and completed in 5 stages: (1) analyze needs and identify problems, (2) literature study, (3) app design or website, (4) implementation, and (5) research results and conclusions [6]. These five stages are shown in Figure 1.



**Figure 1.** Stages of Research and Design

Before designing a website system, the first step is to identify or analyze the problem. The initial problem that is often found by sellers or business owners is usually the seller is still doing it traditionally. Business owners are usually accustomed to advertising or printing expensive brochures. The second stage is to design a system flow to facilitate the buying process using the website. The process starts when a user enters a website and sees an item or catalog that is on that site. There are two possible actions taken by the user such as the user might cancel the order or continue with the purchase process.

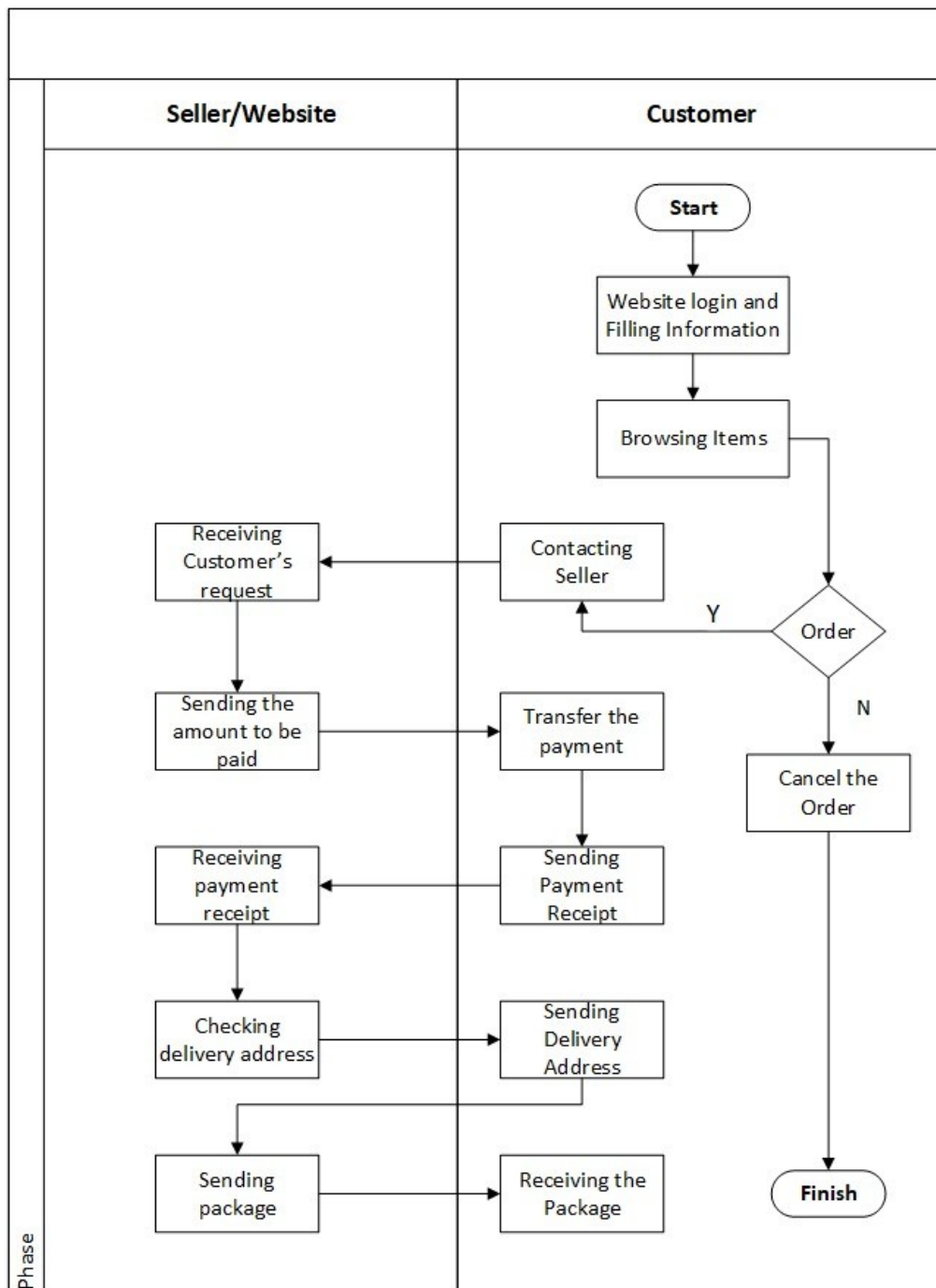
If the user decides to make the purchase process, the next process is to place an order and do the payment using the payment system on the website. After an agreement is reached between the buyer and seller, the transaction will occur. The buyer must pay the order. Payment can be made using several methods, such as through Indomaret or Alfamart. After the buyer provides proof of payment, the seller will check whether the money has been transferred. The seller then checks the address of the buyer and will then send the items ordered by the buyer through the shipping service. After the buyer receives the goods, the process is complete [7].

## 3. Results and Discussion

The following is the data flow and interface design of the Web-Based Sales Information System Website.

### 4. Data Flow

Data Flow Diagrams are logical models of data or processes that are made to describe where the data comes from and where data is given to the system, where data is stored, what processes produce data and interactions between the data stored, and the processes imposed on the data. The data flow diagrams are shown in Figure 2 [8].

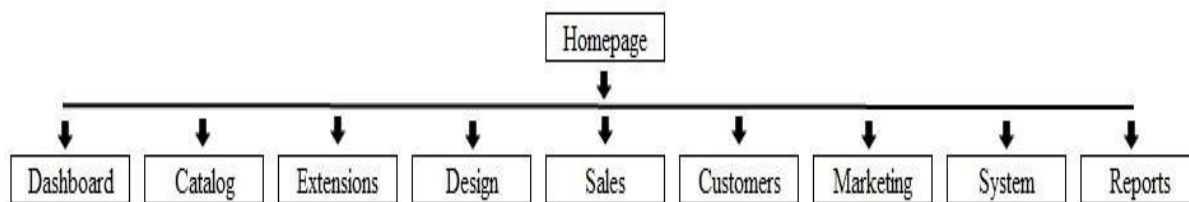


**Figure 2.** System Data Flow Diagram (adapted from [8])

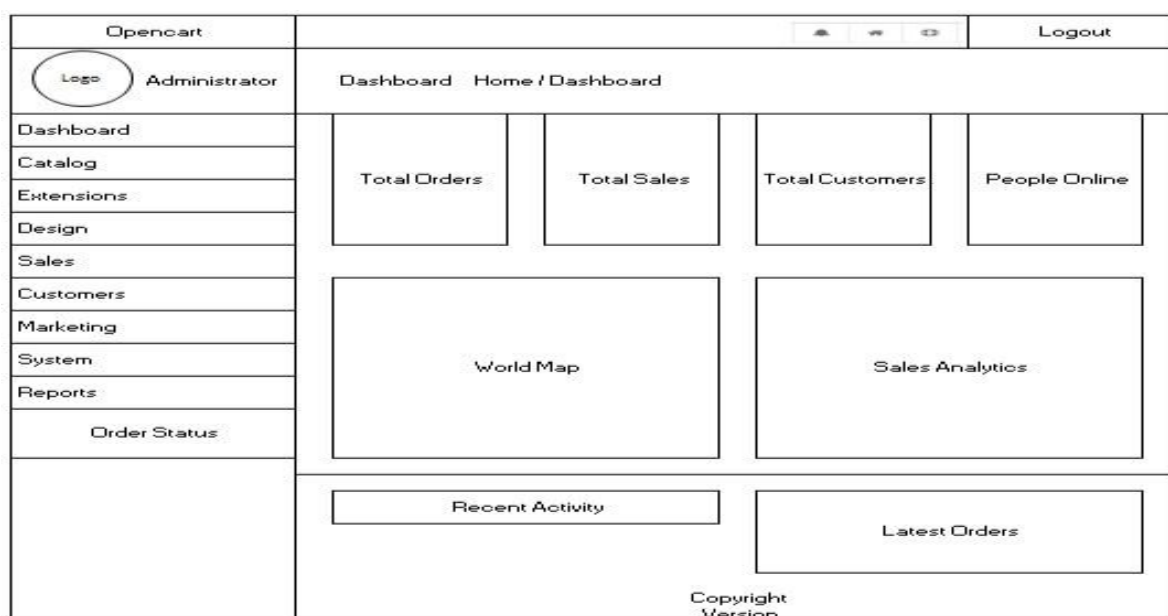
### 5. User Interface Design

The user interface is used by the user and the system to communicate. Users receive the information and convert it into a form that can be accepted by the system. Besides, the interface receives information from the system and presents it in a form that can be understood by the user. This section occurs between the program and the user, which allows the expert system to receive the instructions and the information from users as well as provide it to them. An effective and user-friendly interface is very important, especially for users who are not experts in the fields applied to the systems [9]. Therefore, made an interface design to facilitate users. The display design made is including menu structure, input, and output design of the system [10].

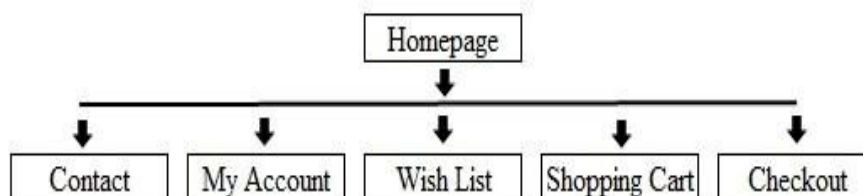
The User Interface structure is divided into the User Menu Structure and Admin Menu Structure. The Admin Structure Menu, Admin Main Page, and User Menu Structure are shown in Figures 3, 4, and 5.



**Figure 3.** Admin Menu Structure



**Figure 4.** Admin Main Page



**Figure 5.** User Menu Structure

#### 6. Purchasing process

This display design is used for users who are interested in using application programs. For those who are interested in using this application program, they must first enter their user name and password. If the customer does not have an account, they must register first. The display of the User Login menu is shown in Figure 6. For users who do not have an account, they must fill out the registration form first as shown in Figure 7. The login menu for the admin is shown in Figure 8.

		<a href="#">Contact</a>	<a href="#">My Account</a>	<a href="#">Wish List</a>	<a href="#">Shopping Cart</a>	<a href="#">Checkout</a>
<input type="text" value="Logo"/>	<input type="text" value="Search"/>					<a href="#">Shopping Cart</a>
Product Categories						
<a href="#">Home</a>	<a href="#">Account</a>	<a href="#">Login</a>				
<b>New Customer</b> <b>Register Account</b> By creating an account you will be able to shop faster, be up to date on an order's status, and keep track of the orders you have previously made. <input type="text" value="Continue"/>			<b>Returning Customers</b> <b>I am a returning customer</b> E-Mail Address <input type="text"/> Password <input type="text"/> Forgotten Password <input type="text" value="Login"/>			
<a href="#">Information</a>	<a href="#">Customer Service</a>	<a href="#">My Account</a>				

**Figure 6.** User Login Display Page

		<a href="#">Contact</a>	<a href="#">My Account</a>	<a href="#">Wish List</a>	<a href="#">Shopping Cart</a>	<a href="#">Checkout</a>
<input type="text" value="Logo"/>	<input type="text" value="Search"/>					<a href="#">Shopping Cart</a>
Product Categories						
<a href="#">Home</a>	<a href="#">Account</a>	<a href="#">Login</a>				
<b>Register Account</b> If you already have an account with us, please login at the login page. <b>Your Personal Details</b>						
	*First Name	<input type="text"/>				
	*Last Name	<input type="text"/>				
	*E-Mail	<input type="text"/>				
	*Telephone	<input type="text"/>				
	Fax	<input type="text"/>				
<b>Your Address</b>						
	Company	<input type="text"/>				
	*Address 1	<input type="text"/>				
	Address 2	<input type="text"/>				
	*City	<input type="text"/>				
	Post Code	<input type="text"/>				
	*Country	<input type="text"/>				
	*Region / State	<input type="text"/>				
<b>Your Password</b>						
	*Password	<input type="text"/>				
	*Password Confirm	<input type="text"/>				
<b>Newsletter</b>						
	Subscribe	<input type="radio"/> Yes	<input checked="" type="radio"/> No			
						<input type="checkbox"/> I have read and agree to the Payment and Delivery Information
<input type="button" value="Continue"/>						
<a href="#">Information</a>	<a href="#">Customer Service</a>	<a href="#">My Account</a>				

**Figure 7.** Registration Form Page

**Figure 8.** Admin Login Form Page

Catalog of items can be presented after the admin fills in the data of items to be sold. The data entry for items to be sold is done through the Product Category Data Input Form page and Product Data Input Form Page (see Figures 9 and 10).

**Figure 9.** Product Category Data Input Form page

Opencart	Logout											
Administrator	Products Home / <b>Products</b>											
Dashboard	Add Product											
Catalog	<table border="1"> <tr> <td>General</td> <td>Data</td> <td>Link</td> <td>Attribute</td> <td>Option</td> <td>Recurring</td> <td>Discount</td> <td>Special</td> <td>Image</td> <td>Reward Point</td> <td>Design</td> </tr> </table>	General	Data	Link	Attribute	Option	Recurring	Discount	Special	Image	Reward Point	Design
General	Data	Link	Attribute	Option	Recurring	Discount	Special	Image	Reward Point	Design		
>>Categories	English											
>>Products	*Product Name											
>>Recurring Profiles	Description											
>>Filters												
>>Attributes												
>>Options												
>>Manufacturers												
>>Downloads												
>>Reviews												
>>Information												
Extensions	*Mega Tag Title											
Design	Mega Tag Description											
Sales	Mega Tag Keywords											
Customers	Product tags ?											
Marketing												
System												
Reports												
Order Status	Copyright Version											

**Figure 10.** Product Data Input Form Page

Output design is the result of processing data after input is complete and is processed to produce output. The sales report contains several product sales. Figure 11 is the product sales report page.

Opencart	Logout
Administrator	Sales Report Home / <b>Sales Report</b>
Dashboard	Sales List
Catalog	Filter
Extensions	
Design	
Sales	
Customers	
Marketing	
System	
Reports	
>> Sales	Showing Pages
>> Orders	
>> Tax	
>> Shipping	
>> Returns	
>> Coupons	
>> Products	
>> Customers	
>> Marketing	
Order Status	Copyright Version

Date Start	Date End	No. Orders	No. Products	Tax	Total

**Figure 11.** Sales Report Output page

As shown in the discussion above, web-based information systems are interconnected components of one another. It has functions to collect, store, process, and send information into text, images, and information that can be accessed by software to support an activity in the organization in achieving its goals [11]. To translate the hypertext documents, the web browser through the web client will read documents stored on the web-server. PHP was written and introduced by Rasmus Lerdorf in 1994 through its website to find out who has accessed its online summary [12].

## 7. Conclusion

From the results obtained, we can conclude that the User Interface Structure is divided into the User Menu Structure and Admin Menu Structure. To present a catalog of goods sold on the web, the admin must enter the data of goods to be sold through the Product Category Data Input Form page and the Product Data Input Form Page. The system can present a Sales report that presents the number of product sales. This web-based sales system can be utilized by business owners to reach a larger market and facilitate the transaction process.

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