INDONESIAN JOURNAL OF MULTIDISCIPLINARY SCIENCE

P-ISSN: 2808-5957
E-ISSN: 2808-6724
ijoms.internationaljournallabs.com

CREATING A WEB-BASED DISTRO CLOTHES SALES INFORMATION SYSTEM TO EXPAND MARKET SHARE

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ARTICLE INFO

Published: April 30th, 2023

Keywords: *information system, sales, distro, web*

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ABSTRACT

The high competition in the clothing distro industry increasingly requires effective solutions to expand market share and increase sales. Along with the rapid development of information technology, the use of web-based sales information systems can be the right solution in facing this challenge. This research aims to develop a Web-based Clothing Distro Sales Information System to expand market share. This research uses applied research methods, while data collection techniques are carried out by observation, interviews and literature studies. The results showed that a web-based distro sales information system can help expand the distro's market share by increasing accessibility for potential buyers. With a web-based information system, prospective buyers can easily access information about products sold, prices, and available payment and shipping methods. In addition, this system can also provide convenience for buyers in making purchase transactions, such as online payments or ordering directly through the system and reaching more consumers from various regions that were previously difficult to reach.

INTRODUCTION

The development of adult technology has now proven to support life in various aspects, one of which is in the field of sales or commerce. This is in accordance with the statement (Laudon & Traver, 2013). The development and growth of information technology is very rapid has a positive impact on companies engaged in industry, sales and services. With the application of information technology that has been developed, it can bring significant changes to the occurrence of business transformation processes towards digitization, capital mobility and liberalization (Berliana et al., 2020).

Current technological developments facilitate interaction between buyers and sellers via the internet with e-commerce web service media. Through the use of e-commerce-based web, many micro, small and medium companies have taken part in global market competition. There are several small-medium companies that have now become giant companies with a global scale after being able to maximize opportunities for e-commerce web applications such as Amazon bookstore companies, Yahoo portals, and simple auction companies Ebay, all three of which are currently giant companies in just a short time because they utilize information technology in developing their business (Suyanto, 2003).

An e-commerce website or commonly known as an online store, is a website developed with the aim of selling one or more goods and services using electronic media as a medium for delivering information and transaction media for these goods/services (Maulana, 2015). The benefits for a company that has an e-commerce website are able to increase the flexibility of sales

transactions, allow faster delivery to customers for software products, send and receive quotes quickly and economically, and support fast paperless transactions (Rahmidani, 2015). E-commerce websites have indirectly formed a virtual space where it can become a medium that brings together sellers and buyers from various parts of the world without physical space so that it proves to be more efficient and cost-effective. The payment method provided by an e-commerce website is also very flexible because it can be integrated with various online banking services, e-wallets and credit cards or by transfer methods through bank accounts or using other banking services (Widiyastuti, 2020).

The use of web ecommerce is also used in the distro business. Distro is an acronym for distribution outlet is a type of store in Indonesia that sells clothes and accessories deposited by clothing makers, or produced by themselves. Distros are generally small and medium industries (IKM) that are equipped with independent brands developed by young people (Tarigan, 2013). Products produced by distros are tried not to be mass-produced, in order to maintain the exclusive nature of a product and handicraft (Diana et al., 2014). The intense competition in the distro industry that still uses conventional sales methods triggers entrepreneurs to be more creative in promoting their clothes so that they can be more easily reached (Sari, 2017). One of them is by adapting to the development of technology and information by creating an e-commerce website that is able to support and expand market share to global market competition. Based on the background of these problems, researchers are interested in conducting research entitled "Creating a Web-Based Distro Clothes Sales Information System to Expand Market Share."

METHOD

This type of research in this study is applied research. Applied research is designed to solve specific practical problems, such as developing new products, processes, or systems. In this case, research is focused on developing web-based systems to increase sales and distribution of apparel products. The end goal is to expand the company's market share. This research is practical and will be applied directly in the real world (Febriyani et al., 2021).

Data collection techniques in this study were carried out by observation, interviews and literature studies. Observation is made by observing the sales system currently run by the owner of the Distro. While the interview was conducted by asking several questions to the owner of the Distro about the problems that exist in the sales system that have occurred so far so that they can find. Then for literature studies carried out by searching books, journals and other information relevant to research using Google Scholar.

The development method applied in building this information system uses a water fall model with three stages, namely:

1) Needs Analysis: Needs analysis iscarried out with the aim of collecting information about user needs and then translated into a system design which will then be applied to making application programs. There are two types of users that are divided into two roles, namely Admin and User. In this case, users with the Admin role have access rights to enter the admin page by logging in first and processing all data on the admin page. While the user

(user) is not entitled to enter the admin page. Users only have access such as viewing products sold and making clothing purchase transactions.

2) System And Software Design: At the UI/UX design stage researchers use figma applications to create web designs. As for the design of the application, researchers use a mixed navigation structure. At the database design stage, researchers use the Entity Relational Database (ERD) as a tool to design relationships between tables in the database to then be converted into a Logical Record Structure (LRS). At the stage of making program code, researchers use the Javascript programming language with the help of several frameworks on the client and server side, namely React Js and Express Js and use a type of SQL database, namely MYSQL, then use XAMPP as a web server.
3) Unit Implementation and Testing: At the implementation stage of the design design, unit testing of the program codes that have been created is also carried out. This is done to ensure the correctness of the logic and flow of the program. This test is carried out by looking for loopholes and errors caused by human errors in the form of errors from writing code or programming logic errors. In testing the e-commerce web system, research uses the black box testing method. This is done to find the position of the error (error) and ensure the output value produced as desired.

RESULT AND DISCUSSION

Needs Analysis

The first stage carried out in this study is an analysis of what are the needs from the user side and the system to be created. This is done by identifying what needs must be met in making a good system and the needs of the system user.

System Requirements Analysis

1) Provide a registration form for Users who want to create an account as a visitor or prospective buyer, which contains Full Name, Address, Phone, Email, User Account Name, Password, and Re Password.
2) Provide Rating and Comment Features;
3) Provide Payment gateway features or purchase transaction services; and
4) Provide a list and details about clothing products.

User Needs Analysis

1) Administrator (Role Admin)
    a) Administrators can add, edit and delete product data;
    b) Administrators can add, edit and delete Admin data;
    c) Administrators can view the list of incoming orders;
    d) The Administrator may make edits to, the name, price and description of the product; and
    e) Administrators can add new categories or edit and delete product categories.

2) Visitor (Role User)
   a) Users can see the list of products available on the website;
   b) Users can make product purchase transactions;
   c) Users can leave comments and product ratings; and
   d) Users can enter the items they want to buy into the user's cart as a medium for accommodating more than one grocery, or make a wishlist of items they want to buy.

Software Design

At this stage, the system that has been analyzed and designed will begin to be implemented into the form of machine language using programming languages. The implementation stage consists of two processes, namely the creation of program code and the creation of program interfaces and the design of databases in the program.

Interface Design

At this stage, mapping and sharing of elements that will be displayed on one page of the website are carried out, this is done by taking into account the user's comfort in using the website and making it easier for designers to give aesthetic value to the interface design that has been made.

1) UI/UX Design Website user

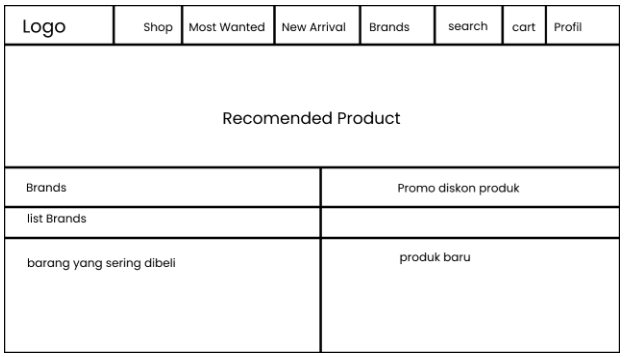

Figure 1. Form User Interface Design

2) UI/UX Design Website Administrator Dashboard

Figure 2. Form Admin Interface Design

3) Database Design

At this stage the database design is made using ERD or Entity Relationship Diagram with the aim of producing a mapping of tables depicted with Logical Relational Structure. The database used in this study is a SQL database, namely MYSQL.

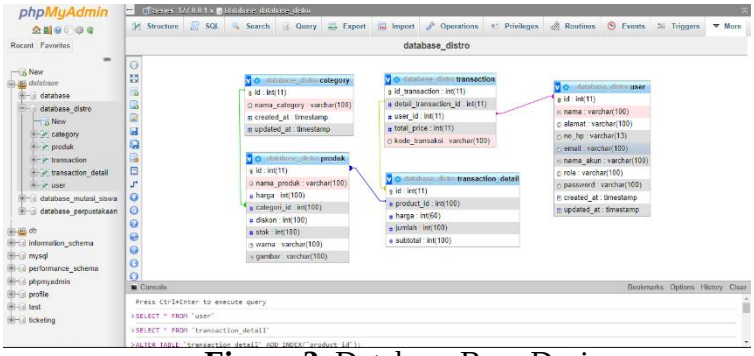

Figure 3. Database Base Design

4) Implementation

At the implementation stage, program coding is carried out using the React js framework in creating a client-side website. The design is made in accordance with the mapping of the user interface (UI) design that has been made. While in making server apps, the author uses the Express js framework in the code writing structure.

In the client side, two different views are made according to user authentication based on the role of the user who is logging in, if the logged in user role is Administrator then after logging in will be navigated to the Dashboard page. Meanwhile, if the role is User (customer) it will be navigated to the main page of the website to buy products.

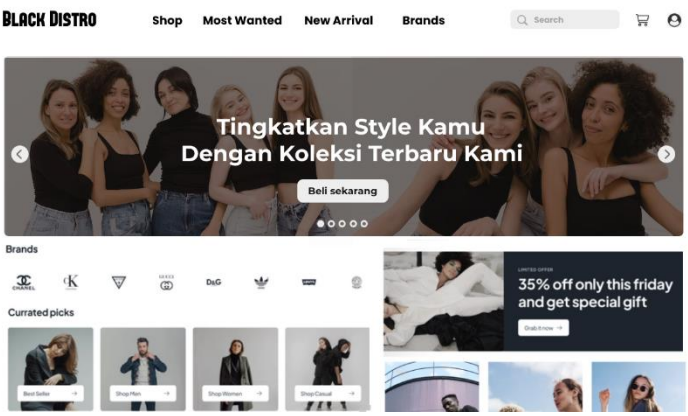

Figure 4. User (Customer) Webview

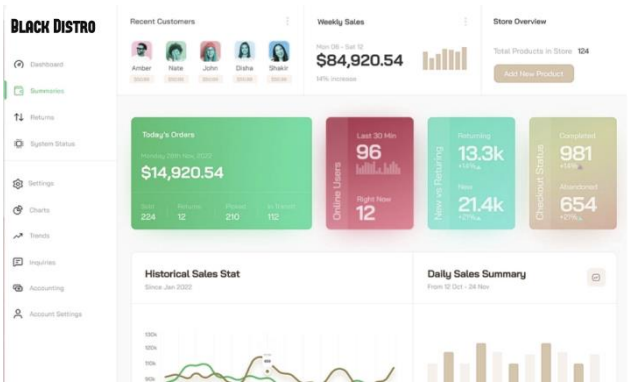

Figure 5. Admin Dashboard Web View

Market Share Expansion

The design of a web-based application sales information system specifically provides benefits to eliminate physical space to bring together buyers from various places and distro owners as clothing sellers (Hasyim, 2012). This certainly provides convenience and efficiency in shopping for buyers. The mechanism of purchasing products that have wide accessibility and product searches that can be done easily using the search feature or search make information on products easier to access and right on target according to the wishes and desires of buyers (Sagita, 2020). Apart from that, information from traditional sales channels has a very significant influence in the transformation process to a sales digitization business model in an effort to expand market share (Kosasi, 2014).

The online sales system using website media provides several advantages on the operational side of the company such as processing goods/product data to be more efficient because it is easy to trace with digital data recording, payment transaction systems become more trusted besides that there are various payment methods that can be chosen by buyers, access to information related to stock/inventory of goods is more accurate and easy accessible, allowing sellers to form personalization relationships with customers so that they become closer and this is one of the

innovations in facing company competitiveness (Akbar, 2020). With the use of a website-based sales information system, companies can easily identify unmet customer needs.

By adapting to digital sales methods by utilizing website-based information systems, distro companies can openly expand sales by entering global market competition. Problems in conventional sales such as the number and inventory of products that are large and unable to be absorbed or sold to the community in the local location are no longer an obstacle because with digital sales, the range of product distribution becomes wider (Gumelar et al., 2018). Through a web-based sales information system can also generate many opportunities and enormous opportunities for market expansion so that it can increase its competitiveness compared to other trading businesses that still use conventional methods by selling the same goods but do not have this sales digitization system.

CONCLUSION

The implementation of a web-based distro sales information system can be an effective strategy in expanding the distro's market share. This is because the existence of this information system can increase accessibility for potential buyers, so they can easily access information about products sold, prices, and available payment and shipping methods. In addition, this system also makes it easy for buyers to make purchase transactions, such as online payments or direct orders through the system. With the existence of a web-based sales information system, distros can also reach more consumers from various regions that were previously difficult to reach, so that it has the potential to increase sales and expand the market.

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