Digitizing MSMEs for Optimizing Diarrra Fashion's Marketing Information System

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ABSTRACT: The role of technology in marketing is to support interrelated activities aimed at planning, pricing, and its relation to promoting, and distributing goods and services to groups of buyers. So that the marketing of goods and services can run optimally. Diarrra Fashion is an MSME engaged in convection, its flagship product is fashion that is designed and sewn by hand so that the product is unique and aesthetic. Currently, Diarrra Fashion is marketing its fashion products manually using promotional media through banners, brochures and word of mouth. With this simple information system, Diarrra Fashion is less well known to the general public and sales are not optimal, because the marketing reach is narrower. Based on the existing problems, it is necessary to build a digital-based marketing system in order to increase the marketing reach of the MSME Fashion Patchwork application. This research used an interview and observation approach. The purpose of this research is to build a digital-based fashion marketing information system so that it can process transactions smoothly without any problems, can be trusted for accuracy and minimize errors.

KEYWORDS: Digital Marketing System; Fashion; On line

I. INTRODUCTION

Advances in information technology, encourage many people to create new innovations to help humans get information quickly and easily, one of which is the internet. A company must be able to make information and promotion services well to attract the attention of consumers. The era of globalization is getting closer in which free trade is becoming a phenomenon that must be faced with mature readiness of the various production factors owned by the company [1].

Technology in marketing has an important role to increase the existence of a company or a business entity. Marketing in today's era, if it is not supported by the development of advanced technology, it is impossible to market it optimally [2]. The role of technology in marketing is to support interrelated activities aimed at planning, pricing, and its relation to promoting, and distributing goods and services to groups of buyers. So that the marketing of goods and services can run optimally [3].

Diarrra Fashion was founded in 2015 by producing its own products. At first, Diarrra Fashion only produced and sold Patchwork Pillows and Bolsters according to customer orders, then expanded to customer orders for sheets. From these orders, Fashion selects fabrics, cuts, and accessories very carefully. From the order, there were some unused fabrics, so it occurred to us that we wanted to turn these fabrics into comfortable clothes for ourselves and our families, so we ventured into the production of casual pants in various sizes.

Currently, Diarrra Fashion is marketing its fashion products manually using promotional media through word of mouth, brochures, banners and social media. By using this brochure printing system, of course, it will require a lot of capital which can be a financial burden and also have to bother distributing the brochure so that many people see it. With this simple information system, Diarrra Fashion is less well known to the general public and sales are not optimal, because the marketing reach is narrower, only people around the promotion place or Semarang area get information, as well as opening hours. currently implemented, only open for a limited time, about 8 hours a day,

Based on the existing problems, it is necessary to build a digital-based marketing system to expand the marketing reach of MSME Fashion Patchwork products in the hope of helping performance and expanding the company's network while simplifying and increasing company promotions through the internet so that it can increase buyer interest which in turn increases company revenue [4].

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II. METHOD

This study aims to analyze and describe the obstacles faced by MSME actors with Fashion Patchwork Applications in product marketing, then design a digital-based marketing information system model to expand the marketing network for MSME products. This study used an observation and interview approach. Interviews were conducted with the owners of the SMEs Fashion Patchwork application. Observations are made by direct observation of the marketing methods used and product sales to buyers/consumers [5].

A. Research Method

On the other hand, we also use Extreme Programming as a research method. According to [6] and [7] Extreme Programming (XP) is a software development methodology aimed at improving software quality and being responsive to changing customer needs. This type of software development is intended to increase productivity and introduce checkpoints where new customer requirements can be adopted The stages of Extreme Programming consist of planning such as understanding user criteria and development planning, designing such as designing prototypes and displays, coding including integration, and the last one is testing [8, 9] can be seen in Figure 1.
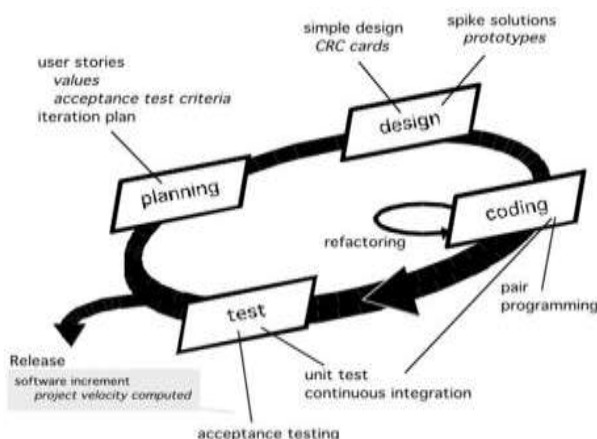

Figure 1. Extreme Programming (XP) Concept

B. Research Road Map

Fishbone diagram (fishbone diagram) is used to describe the road map of this research. Fishbone diagram (WBI Evaluation Group, 2007) is a cause-and-effect diagram that can be used to identify what potential (actual) can be the cause of the birth of a need (problem) [10]. Fishbone diagrams provide a structure for discussion groups around the potential (actual) causes of the birth of the need (problem) [11].

The following is a fishbone diagram based on explanations and guidelines for making fishbone diagrams, as well as a literature review that describes the need for marketing network analysis and the design of a digital-based marketing system model [12].
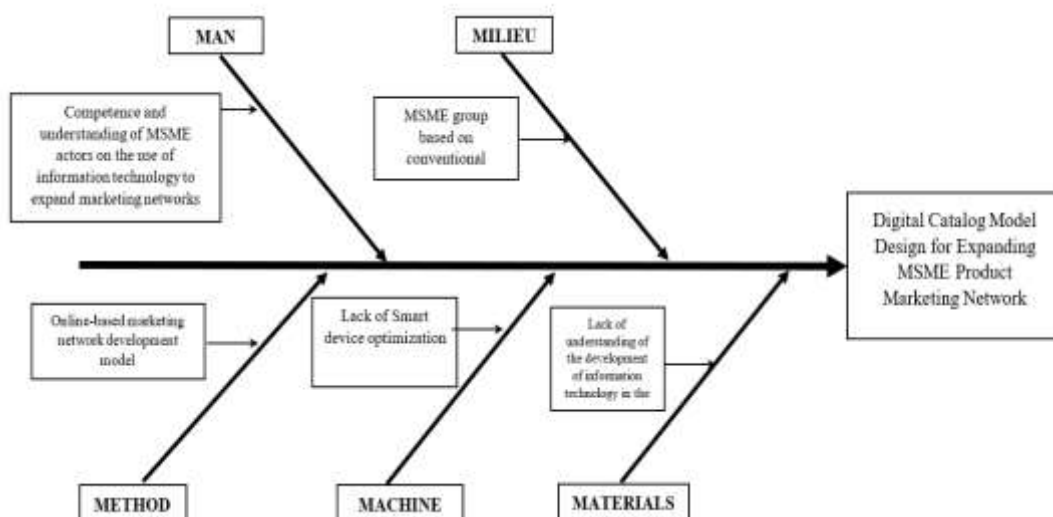

Figure 2. Fishbone

III. RESULTS AND DISCUSSION

The MSME Fashion Patch Application Marketing Information System still has several weaknesses. PIECES (Performance, Information, Economic, Control, Efficiency, Services) analysis aims to determine whether the current system is feasible or not [13]. The old system analysis can be reviewed with the PIECES analysis as follows:

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Table 1. PIECES Analisis Analysis

Analysis Type	Weaknesses of the Old System
Performance	Marketing system is still less effective and not widespread.
Information	The existing sales information system is still in the form of product brochures and word of mouth.
Economy	The cost of promotion with the old system requires substantial funds and the costs incurred for promotion have not been commensurate with the increase in income earned.
Control	The offline marketing system that is currently running is still conventional where the marketing data collection process is lackingorganizedwell. The control system for promotional information is also quite difficult to do if an error occurs in brochure printing.
Efficiency	The efficiency of the system is still very lacking, for example to find out the number of products ordered and how many products are still in stock takes a long time because it has not been recorded properly. So that in making decisions for delivery or production planning problems often occur.
Service	The services provided to consumers are very limited. The service process is only limited to consumers coming directly to the store.

A. Modeling

The data obtained from the planning stage is then made into the form of a model to get an overview of the system to be made. The design of this goods rental marketplace is modeled using UML (Unified Modeling Language) [14].
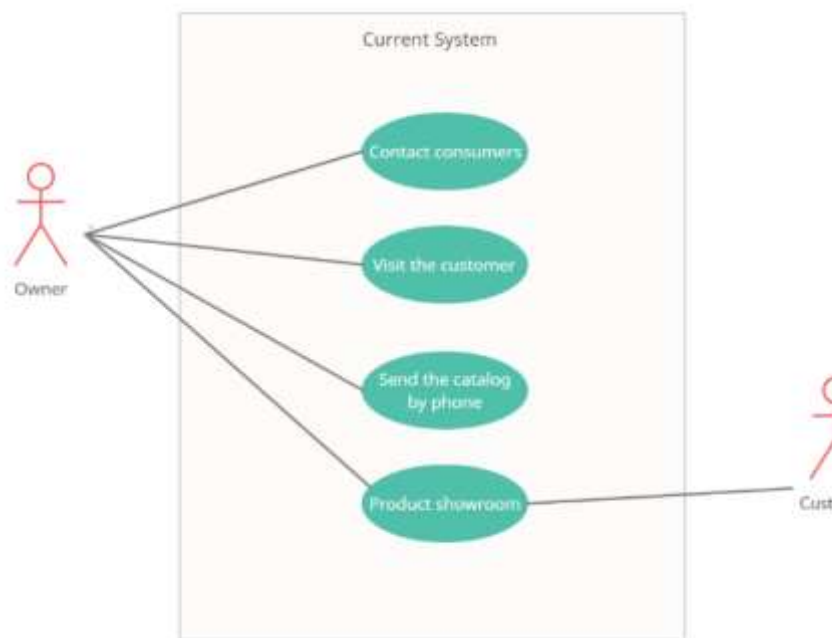

Figure 3. Current System

After we saw the conditions there, The main disadvantage of they way they sell using traditional marketing is more expensive in terms of resources (material, monetary, human), such as brochures, leaflets, catalog presentations, product sheets [15]. We found several weaknesses in the marketing of Diarrra Fashion, including:

- Only selling in the neighborhood
- Rely only if there is an exhibition
- Marketed via WhatsApps by sending to groups
- Does not have organized product documentation.

B. Activity Diagrams

Activity diagrams or activity diagrams describe the workflow (workflow) or activities of a system or business process. What should be noted here is that the activity diagram depicts system activities, not what actors do, so activities that can be performed by the system [16]. It can be seen in Figure 3 below:
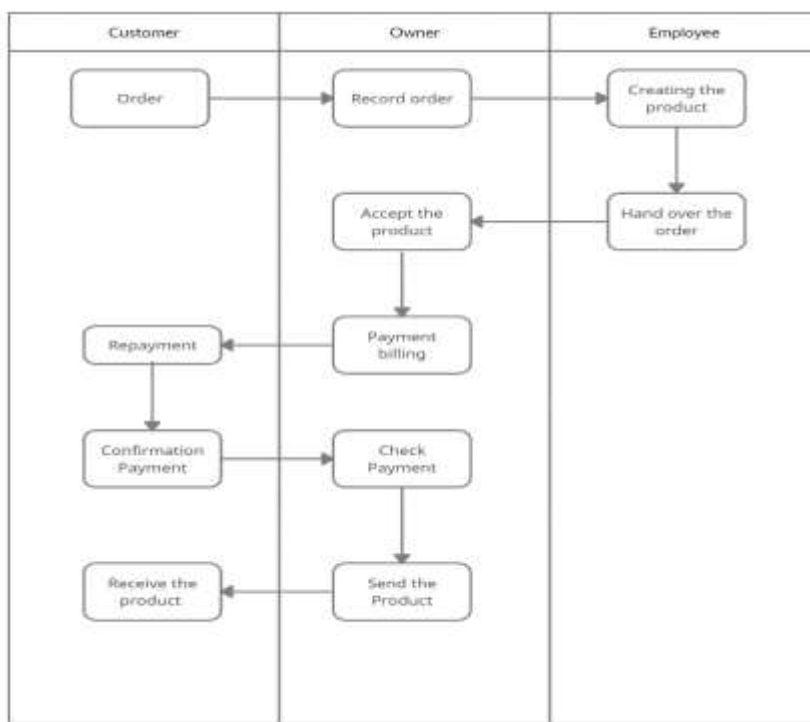
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Figure 4. Activity Diagrams

IV. APPLICATION IMPLEMENTATION

A. Process Design

Context Diagram is a simple diagram that describes the relationship between external entities and the system [16]. The description of the diagram can be seen in Figure 5 below
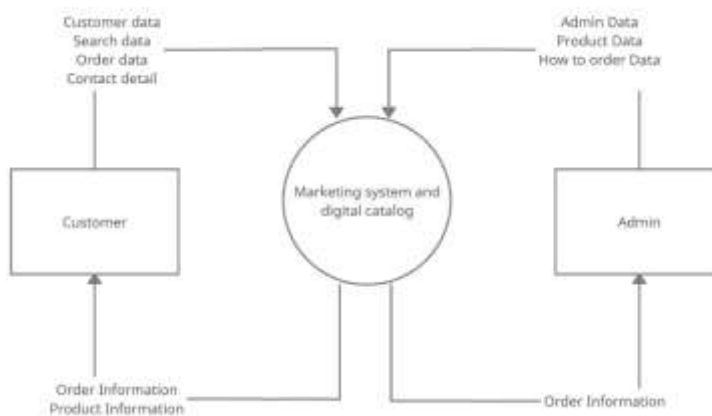

Figure 5. Activity Diagrams

In Diarrra Fashion's marketing information system, there are two entities that are related to the system as shown in Figure 3. There are Customer and Admin entities where pat this point, the person acting as admin is the owner. From each entity there is some information generated by the system and vice versa there is also information entered into the system which will then be processed by the Web-Based Diarrra Fashion Marketing Information System Design system.

B. Data Flow Diagram Level

Data Flow Diagram is a data logic model that is more detailed in explaining the process and flow of data compared to context diagrams [17]. The Data Flow Diagram level 0 system designed can be seen in Figure 6 below.
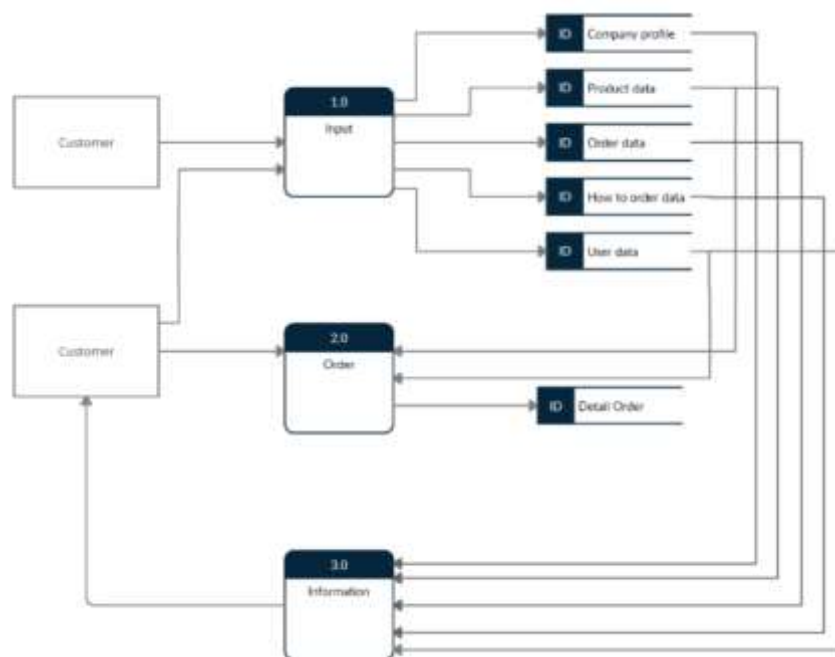
Figure 6. Data Flow Diagram Level

Figure 4. Is a level 0 data flow diagram, where at this stage it appears that there are several processes that are interconnected with the entity, namely the 1.0 Input, 2.0 Order, and 3.0 Information processes as well as several data stores, namely company profile tables, product data, order data, how to order, user data, order details.

C. Implementation

System implementation is the procedure carried out to complete the system design contained in the approved documents and test the system, install, start and use the new system or the repaired system [18]. Implementation is the stage of the system that is ready to be used, so it will be known whether this sales information system can actually run and in accordance with the objectives to be achieved [18].

D. Main Menu Page

Figure 7 is the main menu display, which is a display to make it easier for users to run the features contained in this web-based Marketing Information System. The features/menus provided on this web display are the homepage, clothing, health, equipment.

Figure 7. Menu Page Display

E. Product Category and Type Pages

Category and Product Type Pages are pages that are used to display and manage goods for users who act as owners of goods or vendors. On this page the user can view the data on the items they have, add new item data, change the data for existing items and delete the item data they have.

Figure 8. Product Category and Type

F. Product Details Page

After having a quick look at the product on the home page and being interested in the product and clicking on it, you will be directed to the product detail page and purchase page as above. On this page, product details are presented such as color selection, number of products you want to buy and choosing size.

Figure 9. Product Details

G. Transaction Status Page

The buyer will be directed to the transaction status page, for orders with pending status, meaning that the buyer has not confirmed payment, the buyer should transfer to the account as provided and confirm payment by pressing the confirmation button, for orders with confirmation status, it means that the payment has been confirmed, and wait seller to process goods, for orders with process status means the order is being processed or shipped, and completed for orders that have been completed.

Figure 10. Transaction Status

H. Register Page

Registration form designed to make it easier for customers to register orders listed on the website. Customers can directly fill in the personal data that has been provided through the registration form with the terms and conditions that apply in the registration form. As for how it looks as follows, the registration menu options to become a member.

Figure 11. List

I. Seller Home

After the seller has successfully logged in, he will be directed to the seller's main menu which displays the seller's profile and can edit your profile and stall shop to see the appearance of your store, displaying the last 10 sales transactions and for more details click on see all, displaying total sales results, and results personal products, as well as several menus, namely references to managing stalls (products, cod, and lapak), transactions for transaction management (consumer orders, consumer payments), reports to view finances, edit profiles to edit profiles, logout to exit.

Figure12. Main Seller

V. CONCLUSION

Based on all the research stages that have been carried out starting from the analysis stage of both the problems and solutions to be taken, and the design and manufacture of systems according to the related MSME product marketing problems so as to produce a web-based MSME product marketing system. With the existence of a web-based MSME product marketing system, this can be a solution to the problems that have been defined earlier and can increase the sales turnover of related MSME actors so that the objectives of writing and designing this research can be realized. It can be concluded that the use of internet media in marketing activities and disseminating information about products sold by the public is very useful and fulfills online marketing strategies. making it easier to reach a wider market, more efficiently and effectively. In its application, it can be in the form of E-Commerce, E-Marketplace, online marketing systems and others. The use of the system development method is very appropriate to be applied to make complex systems, because each stage is clearly defined, and there is no intervention from the initial goal.

VI. ACKNOWLEDGMENT

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