

Analysis and Design Of Marketing Information Systems to Increase Web-Based Sales (E-Commerce) at PT. Sinar Rejeki Cemerlang

Roland Dio Marwan ^{1)*}, Verri Kuswanto²⁾

¹⁾²⁾Universitas Buddhi Dharma

Jl. Imam Bonjol No. 41 Karawaci Ilir, Tangerang, Indonesia

¹⁾rolanddio44@gmail.com

²⁾verri.kuswanto@ubd.ac.id

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Abstract

Current developments In today's era, there are still many companies or businesses that still do not use technology. To be able to provide information, internet technology is needed. Accessing the internet can be done anytime and anywhere if a connection is available. All companies will compete with each other to use this technology to market and sell their products so that companies can develop and are able to continue to compete with other companies. efficient, the means is an online marketing and sales system. Based on this situation, the company decided to develop a website like e-commerce. Then a sales information system was made which is similar to an e-commerce website. To train how to market products and the buying and selling process, we can start using the e-commerce web. Making this system will be able to reduce problems that occur between buyers and sellers because it is done by use a system that is usually connected to internet. In addition, buyers can also view detailed product information and understand the product they want to buy. This system is made using the PHP programming language with the Laravel framework. The Laravel framework is a website development that is formed in the PHP language. The results of this research are in the form of designing a web-based online sales system that can also be used to find out detailed product information. respondents, the results of this questionnaire get a percentage value of 95% so it can be concluded that this online sales system can be used, and makes it easier for users.

I. INTRODUCTION

Some of the things that determine a company's success are sales and marketing. A large company without an effective marketing and sales strategy will not be able to get a lot of customers and get a wide market. In order to develop and improve, a company must implement a marketing and sales system using internet technology. Efficient and good promotional tools have been applied to large and small companies so that it is expected to make the company successful[1]. PT SINAR REJEKI CEMERLANG is an institution that sells various audio electronic products. The company was opened in 1999, located in Glodok, West Jakarta. PT SINAR REJEKI CEMERLANG produces speakers, power amplifiers, mixers and microphones[2].

The problems that exist at PT Sinar Rejeki Cemerlang are in the sales and marketing department. The marketing and sales system is still ineffective so that the company has difficulty getting a large market and a large turnover. Displaying detailed product specifications will also be shown in this sales system so that it will help buyers in choosing products[3].

* Corresponding author

Considering the depiction of the foundation ends, this exam takes on the title "ANALYSIS AND DESIGN OF WEB-BASED MARKETING AND SALES INFORMATION SYSTEMS (E-COMMERCE) AT PT. RAY BRILLIANT REJEKI". With this system, it is expected that the company can open a wider market, increase the company's turnover, and increase the company's revenue.

Identification of problems From some of the explanations given in the background, we can identify the following problems:

1. The marketing concept is still not feasible, so it is difficult for the organization to get a wider market.
2. The sales concept is less than optimal, making it difficult for the organization to get a large turnover.
3. Customers have difficulty in obtaining detailed and detailed product information.

II. RELATED WORKS/LITERATURE REVIEW (OPTIONAL)

System Definition

A system, which comes from Latin (*systēma*) and Greek (*sustēma*), is a substance consisting of several components that combine to accelerate the development of data, matter, or energy to achieve a goal[4]. The term is often used to describe a group of bridging substances from which numerical models can be developed[5].

Definition of Sales

As Mulyadi (2008: 160) points out, "deals are a movement that traders apply in selling labor and products in the hope that they will benefit from this exchange and agreement can be interpreted as an exchange or transfer of freedom of ownership of labor and products. . from dealer to buyer."[6].

Definition E-Commerce

As pointed out by Kadir (2009:10), "Electronic business is another arrangement that can be described as a strategy involved with the exchange of work and goods on the web or the exchange of goods, organizations and information through information networks including the web."[7].

Definition Website

According to Hakim Lukmanul, the site is a web office that connects archives in the surrounding environment and remote areas. The archive on this site is known as the morning web and the connection on the site allows clients to move from one morning then to the next morning (hypertext), either between mornings stored on the same server or servers around the world[8].

PHP

PHP is a Hypertext Preprocessor, which is a code-based programming language (script) used to handle data and send it back to a web program into HTML code. PHP is a programming language for creating server-side web coordination. PHP allows you to create dynamic web pages. PHP can run on various structures, for example: Windows, Linux and Macintosh frameworks. Besides Apache, PHP also supports several other web servers, such as Microsoft IIS, Caudium, PWS and others[9].

MySQL

MySQL is a SQL information database administration framework programming otherwise known as DBMS (data set administration framework), this data set is multithreaded, multi-client. SQL is the idea of information-based activities, especially for the selection or determination and sharing of information, which enables information tasks to be carried out effectively and consistently.

According to Gerlan Apriandy Manu, MySQL is an important information base that can be run in various types of stages such as Linux and Windows[10].

XAMPP

XAMPP is an open source programming which is an improvement over Light (Linux, Apache, MySQL, PHP and Perl)[11].

XAMPP is a definition of programming that supports many frameworks, is a collection of several projects. XAMPP is an instrument that delivers a product bundle consisting of Apache, PHP and MySQL.

HTML

HTML is a type of record on the web that can be read by a program. HTML has turned into a standard report on the web because it has two fundamental highlights. Perama can create merges on the page which take the client to a different page and besides, the HTML archive is saved as a text report which can be read by almost any PC[12].

LARAVEL

Laravel is an open source PHP-based web application system, utilizing the Model-View-Regulator (MVC) idea. recommends that the system is a fundamental computational structure used to deal with or deal with complex problems. Simply put, structure is the system from which a site will be built. By leveraging this structure, the time required to build the site is limited and makes maintenance interactions simpler[13].

HTTP

HTTP (Hypertext Move Convention) is an application layer networking convention created to assist exchange interactions between PCs. This convention is used to transfer data such as reports, documents, images, and recordings between PCs. HTTP convention consists of a group of commands in the correspondence between networks. Correspondence occurs between the client PC and the web server or vice versa, the client PC makes a request by getting an IP address or space to give and then the web server handles the request with the code entered. HTTP is considered to be very adaptable and has recently been continuously developed with various new features so that the HTTP convention becomes the most reliable convention and the fastest trading information handling.

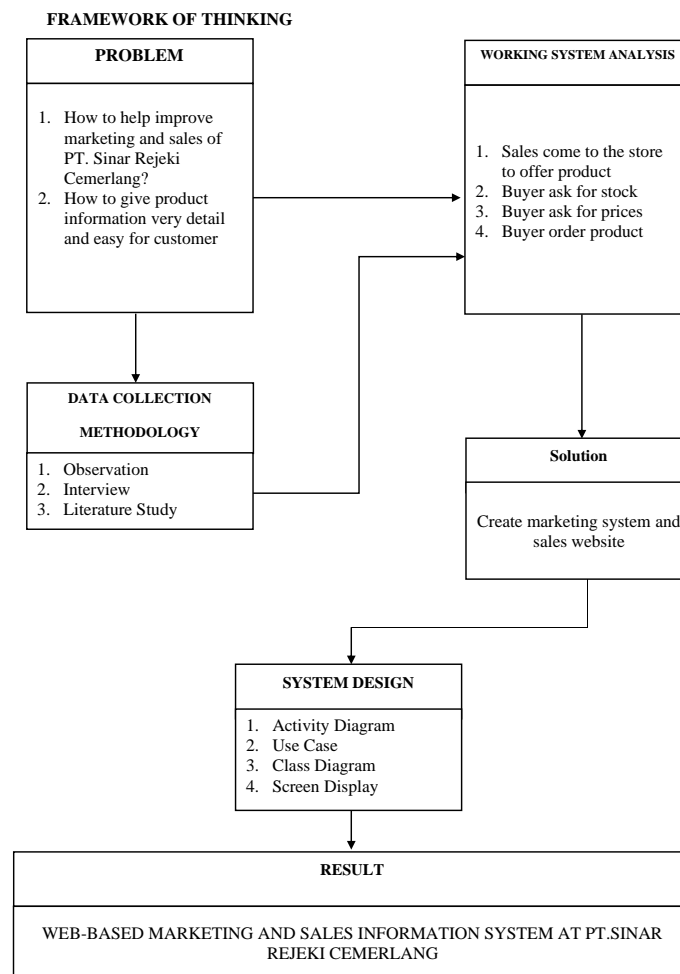


Fig. 1 framework of solution

III. METHODS

- a. *Observation*
 Paying attention to or researching the ongoing framework by mentioning actual and precise data and information from PT Sinar Rejeki Cemerlang.
- b. *Interview*
 Given the information collected in the previous cycle, in this interaction we immediately held back and forth discussions with workers from each division. This action is designed to recover information directly from the source. let alone exactly.
- c. *Literature review*
 Writing research by reading and understanding related books to complete the information and hypotheses required for this examination. Utilization of electronic media, such as the web and other media[14].

TABLE 1
 Activity schedule for implement

No	Activity	March				April				May				June				July			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
1	Observation																				
2	Needs Analysis																				
3	Literature review																				
4	Study overview																				
5	System procedure																				
6	Design																				
7	Documentation																				

IV. RESULTS

Based on the questionnaire test table that has been added up, then taken from the average value the majority of respondents agree with the use of online marketing and sales systems and can make it easier for users to get detailed product information. So it can be decided that this online sales system is acceptable, and helps users[15].

TABLE 2
Quisioner for Implement

No	Question	Answer Yes	Answer No	Percentage Yes	Percentage No
1.	Can this system make online transactions anywhere?	10	0	100%	0%
2.	Can this system make it easier to view product information and content?	8	2	80%	20%
3.	Is the creation of this system able to make time efficient?	10	0	100%	0%
4.	Does the use of this system facilitate the transaction process?	10	0	100%	0%
5.	Is the security of this system in storing data guaranteed?	10	0	100%	0%
6.	Is the display on this system attractive?	10	0	100%	0%
7.	Are registering and logging in well?	10	0	100%	0%
8.	Is the product menu display as desired?	10	0	100%	0%
9.	Has the transaction process been going well?	10	0	100%	0%
10.	Does this system meet your expectations?	7	3	70%	30%

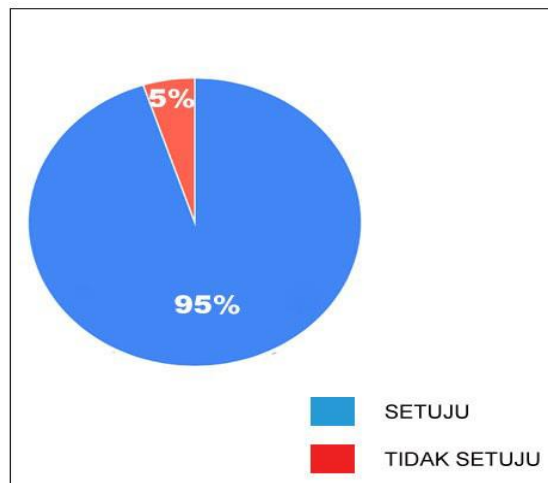


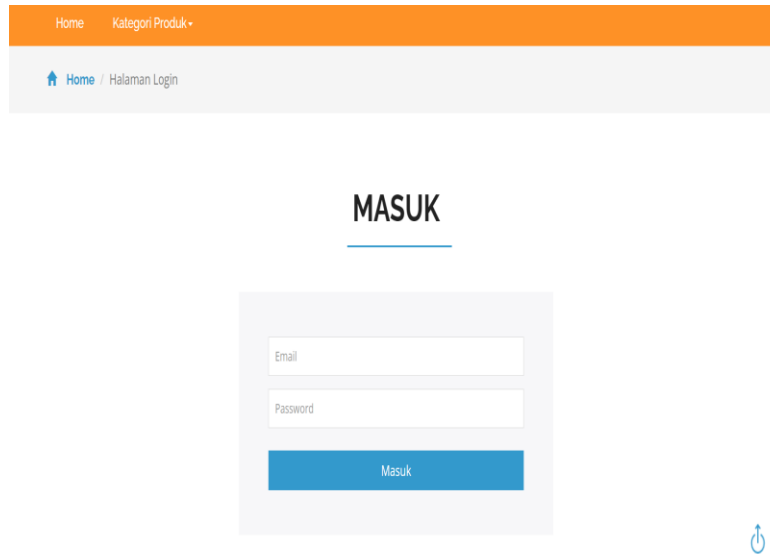
Fig. 1 diagram summary quisioner

Menu Display

Menu Display

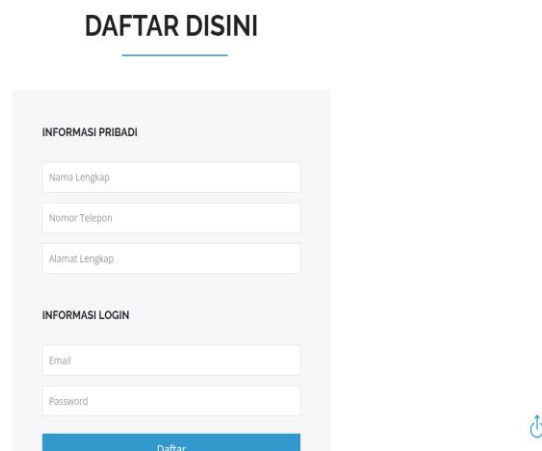
The menu display consists of:

- 1.Home
- 2.Login
- 3.Register
- 4.Product
- 5.Admin panel



The screenshot shows a web application interface. At the top, there is an orange navigation bar with the text 'Home' and 'Kategori Produk'. Below this is a light gray breadcrumb trail showing 'Home / Halaman Login'. The main content area is white and features the heading 'MASUK' in bold black text, underlined. Below the heading is a light gray rectangular form containing two input fields: 'Email' and 'Password'. A blue button with the text 'Masuk' is positioned below the input fields. To the right of the form, there is a small blue circular icon with a white arrow pointing upwards.

Fig. 2 login administrator



The screenshot shows a web application interface. The main content area is white and features the heading 'DAFTAR DISINI' in bold black text, underlined. Below the heading is a light gray rectangular form. The form is divided into two sections: 'INFORMASI PRIBADI' and 'INFORMASI LOGIN'. The 'INFORMASI PRIBADI' section contains three input fields: 'Nama Lengkap', 'Nomor Telepon', and 'Alamat Lengkap'. The 'INFORMASI LOGIN' section contains two input fields: 'Email' and 'Password'. A blue button with the text 'Daftar' is positioned below the input fields. To the right of the form, there is a small blue circular icon with a white arrow pointing upwards.

Fig. 3 register box input

a. Main Menu

The menu display consists of :

- 1.Home
- 2.Login
- 3.Register

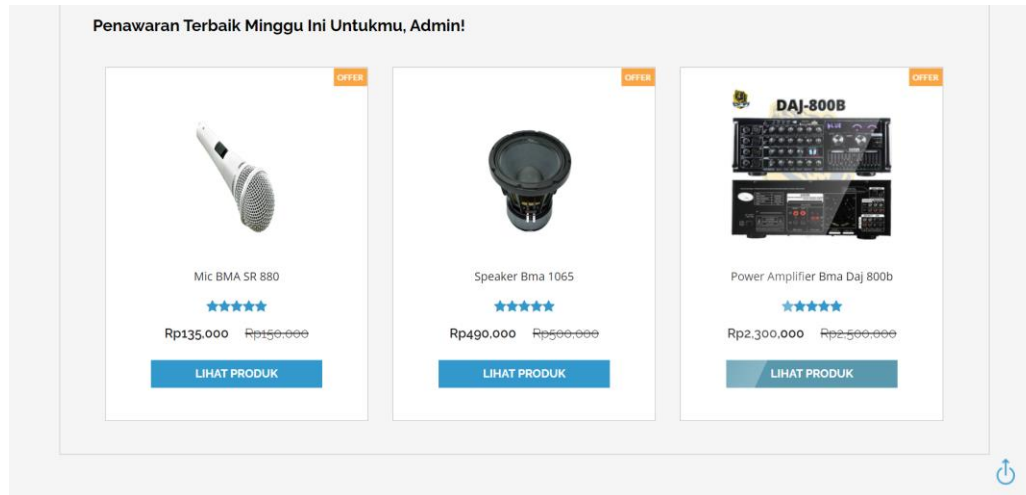


Fig. 4 home layout

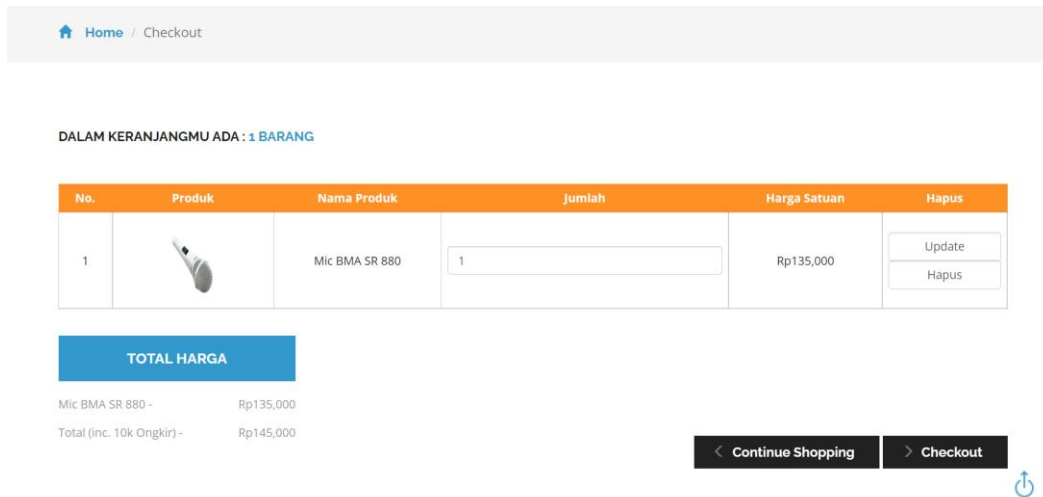


Fig. 5 add chart for payment

b. Product Menu

Consist of product information and cart menu

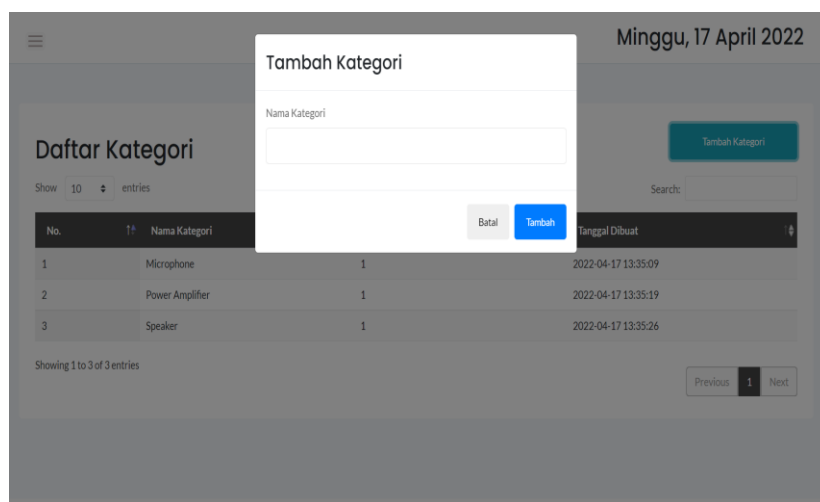


Fig. 6 Add category for administrator

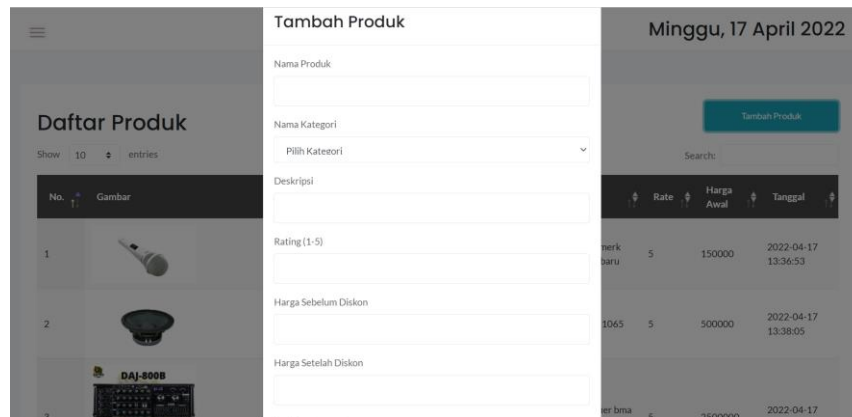


Fig. 7 add product for administrator

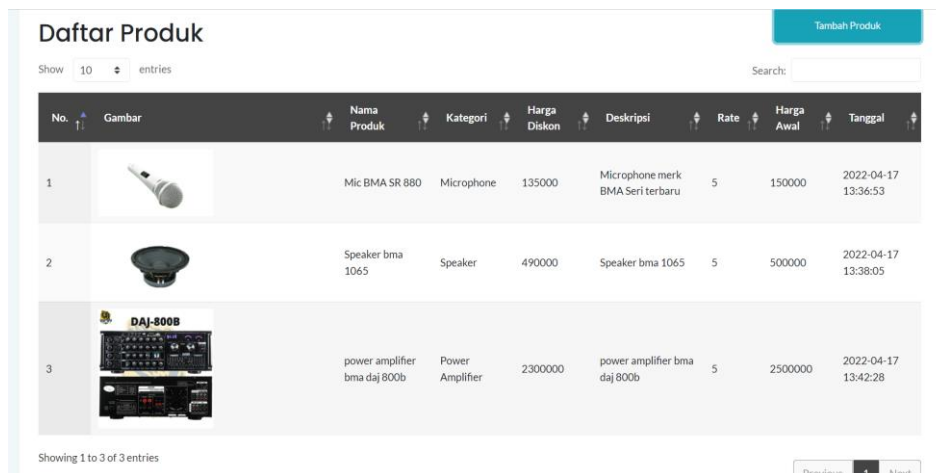


Fig. 8 list of all product

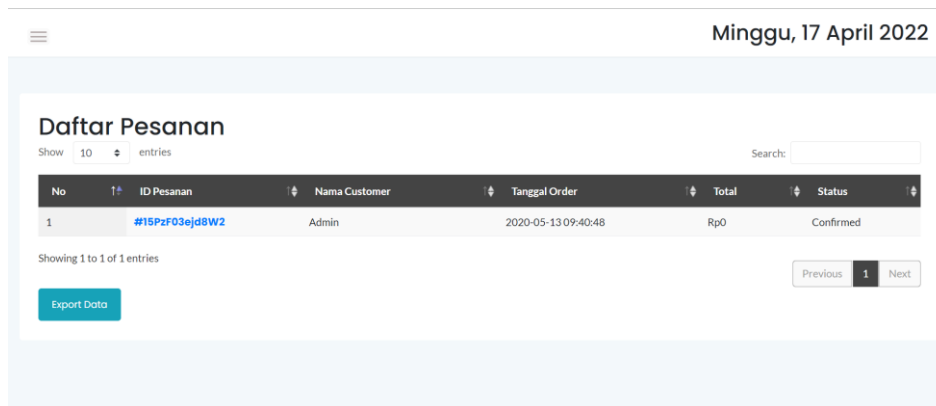


Fig. 9 list of order

c. Admin panel Menu

Consist Of :

1. Menu to add category and new product
2. Menu consist of list product, orders

V. DISCUSSION

Based on the results of the implementation of the results of the program that has been proposed, the evaluation results have been obtained, namely, the program is in accordance with what is needed by the company. So from all the obstacles that exist in my company, I try to help make it easier for the existing workforce and make it easier for consumers by doing the research that I have done by making this marketing and sales program online with e-commerce. This program has been tested beforehand by ordering goods and making payments to ensure the system runs properly and correctly without any errors.

VI. CONCLUSIONS

Based on the research that has been done and also the tests that have been carried out, it can be concluded that the e-commerce system that has been created is as follows:

Based on research that has been done the system that has been made can be used and can make online purchases and increase company turnover; Based on the tests that have been carried out, it can be concluded that this e-commerce system can display detailed product information for customers

Based on the results of research, analysis, and design of marketing and sales systems at PT Sinar Rejeki Cemerlang, several inputs are obtained to increase marketing and sales as follows:

1. The company provides facilities to support the performance of the new system so that it can be maximized.
2. The company switched from the old system to a new, more integrated system so as to facilitate the company's sales and marketing in the future.

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