IMPLEMENTATION OF E-COMMERCE IN PERCETAKAN CITRA BERSAMA TANJUNGBALAI USING THE CRM METHOD

by Frieyadie Frieyadie

IMPLEMENTATION OF E-COMMERCE IN PERCETAKAN CITRA BERSAMA TANJUNGBALAI USING THE CRM METHOD

Nurhikma Ritonga [1*)], Neni Mulyani [2], Rika Nofitri [3]

[1] Information Systems Study Program
STMIK ROYAL, North Sumatra
https://stmikroyal.ac.id/
[1*)] nurritonga742@gmail.com, [2] neni.muliani@gmail.com, [3] nofitririka15@gmail.com
(*) Corresponding Author

Abstract

Percetakan Citra Bersama Tanjungbalai adalah usaha yang bergerak di bidang penjualan produk dan jasa percetakan, berdiri sejak tahun 2006, berlokasi di Jalan Peninsula, Desa Sirantau, Kecamatan Datuk Bandar, Kota Tanjungbalai. Permasalahan yang terjadi di Citra Bersama Printing adalah belum menerapkan sistem penjualan online; pelanggan kesulitan mengetahui informasi penjualan pada mesin cetak. Belum adanya sistem informasi untuk melakukan promosi, dan pencatatan data pesanan pelanggan di mesin cetak masih dilakukan secara manual. Oleh karena itu aplikasi E-commerce menggunakan metode CRM penjualan produk berbasis web dan jasa percetakan yang dapat membantu pembeli mengetahui berbagai informasi dan memudahkan pembeli melakukan pemesanan tanpa datang langsung ke printer. Penerapan E-commerce dengan metode CRM membantu Percetakan Tanjungbalai Citra Bersama dalam melakukan promosi dan memberikan informasi terkait penjualan produk dan jasa yang dipasarkan kepada pelanggan, serta memperluas penjualan produk dan jasa yang dijual karena adanya fitur promosi, harga diskon , data pelanggan, live chat, dan rating produk.

Keywords: E-commerce, Customer Relationship Management (CRM), Web Application

Abstract

Citra Bersama Tanjungbalai Printing is a business engaged in selling printing products and services, established in 2006, located on Jalan Peninsula, Sirantau Village, Datuk Bandar District, Tanjungbalai City. The problems that occur in Citra Bersama Printing are not yet implementing an online sales system; customers have difficulty knowing sales information on the printing press. There is no information system to carry out promotions, and recording customer order data at the printing press is still done manually. Therefore, the E-commerce application uses the CRM method of web-based product sales and printing services to help buyers find various information and make it easier for buyers to place orders without coming directly to the printer. The application of E-commerce with the CRM method helps Tanjungbalai Citra Bersama Printing in conducting promotions and providing information related to the sale of products and services marketed to customers, as well as expanding sales of products and services sold due to promotional features, discount prices, customer data, live chat, and product ratings.

Keywords: E-commerce, Customer Relationship Management (CRM), Aplikasi Web

INTRODUCTION

In this day and age, technology is increasingly influential in human life. It is easier for humans to complete various jobs, especially information technology. So also applies to the business world, with the development of information technology such as the internet, an electronic medium that can help business people run their business, called e-commerce. E-commerce is the buying, selling, and marketing of goods and services through an electronic system (Wirhan Fahrozi, Samsir, & HTS, 2020). In general, e-commerce is all forms of trade in electronic media (trade of goods and services). The application of e-commerce in a business can have an international market (Leatemia, 2020). They were doing business online without being constrained by time and place constraints. An online business is a business using internet media when marketing a product (Rahadi & Sasmita, 2021).

Citra Bersama Tanjungbalai Printing is a business engaged in selling printing products and services, established in 2006, located on Jalan Peninsula, Sirantau Village, Datuk Bandar District, Tanjungbalai City. The local community well knows this business. This printer provides various products and services (such as printing banners, invitations, stamps, Yasin books, invoices, and bet names).

So far, promotions and sales carried out by the Citra Bersama Tanjungbalai Printing are done manually, not yet implementing an online sales system. Customers have to come directly to the printing press to view and make purchases, and if customers want to know prices and related sales of printing products and services, they must ask the printing staff, so it takes quite a long time. In recording customer order data in printing, they still use stationery (such as books, pens), making the resulting data easily torn, burned, wet, or even lost. Sales transactions in printing need to be improved to compete with similar competitors who have used the internet as a marketing medium to increase product or service sales and get new customers in a broad scope.

In addition, Tanjungbalai Citra Bersama Printing must be able to provide satisfaction to customers because this is the key to success in business when business competition is getting tougher. Companies with high levels of customer satisfaction also offer high levels of customer service (Prasetio, 2012). Implementing e-commerce alone is not enough to attract customers' attention. Acquiring new customers and retaining old customers need to implement customer relationship management, better known as Customer Relationship Management (CRM) (Budiarti & Andah, 2019).

Customer Relationship Management (CRM) is one of the means to manage good relationships between companies and customers. By utilizing CRM, companies will know what their customers expect and need to create an emotional bond to make a close and open business relationship. Thus, customer loyalty is maintained, and it is not easy to switch to competing companies (Kifti and Swaradana, 2020)

Customer Relationship Management (CRM) is one of the e-commerce developments that allows companies to develop closer relationships with customers where companies can learn about and provide service options according to customer demands. (Yahya W, 2016) . In Islam, the seller must have a good relationship with the customer, thus establishing a beneficial relationship for both parties (Ciptiyani, 2021). Maintaining relationships with customers can be done in various ways, among

others, providing optimal service, knowing information about customer desires, and the ability to communicate well with customers. Service (Customer Service) In general, every activity intends to satisfy. Through this service, customers' wants and needs are fulfilled. (Banking et al., no date) .

The implementation of e-commerce using the CRM method for selling products and services at the Citra Bersama Tanjungbalai Printing will assist the printing press in increasing sales and service to customers.

RESEARCH METHODS

This study uses a qualitative method. Qualitative research is a research process that produces descriptive data in written or spoken words from people and observed behavior. The data obtained by the authors in this study were from interviews from the Citra Bersama Tanjungbalai Printing Party and quotes from several journals. The problems that impact this research are qualitative, originating from an understanding and observation of the authors, developed into issues and solutions that aim to solve a problem with actual direct application in the field.

Types of research

This type of research uses qualitative methods. Qualitative research is a research process that produces descriptive data in written or spoken words from people and observed behavior. The data obtained by the authors in this study were from interviews from the Citra Bersama Tanjungbalai Printing Party and quotes from several journals. The problems that impact this research are qualitative, originating from an understanding and observation of the authors, which later developed into an issue and solutions that aim to solve a problem with actual direct application in the field.

Research Time and Place

The time of research began in December 2021 and continued until April 2022. The research in this study took place at the Tanjungbalai Joint Image Printing located on Jalan Peninsula, Sirantau Village, Datuk Bandar District, Tanjungbalai City.

Target/Research Subject

Target/Subject This research was conducted at the Tanjungbalai Image Printing Company using qualitative research using observation, interviews, and documentation.
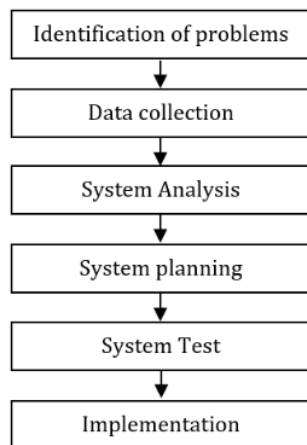
Procedure

Figure 1 Research Framework

The description of the framework of this research is as follows, namely:
Problem Identification
1. Identification of the problem
    In this research is, the area of sales of products and services for Citra Bersama Tanjungbalai Printing is still limited, there is no information system in carrying out promotions, and the difficulty of customers know about the information on sales of printing products and services, recording customer order data at the printing press. Still use writing tools such as books, pens, and so on, which make the resulting data easily torn, burned, wet, or even lost.
2. Data Collection
    The process of collecting data using observation techniques, and conducting interviews with Mr. Horis Firmansyah Lubis as the company owner, was continued by one of the Image Printing officers with Tanjungbalai named Kiki.
3. System Analysis
    Analyst e-commerce application system at Citra Bersama Tanjungbalai Printing uses the Customer Relationship Management (CRM) method using the PHP programming language and program analysis designed in Unified Modeling Language (UML), which consists of class use case diagrams, activity diagrams, sequence diagrams.
4. System Design
    On the system view is designed, it will display the initial appearance of the website in the form of home, admin data, customer data, order data, and the final results of the program in the application of product sales or services for Tanjungbalai Citra Bersama Printing.

5. System Test
    System testing compares manual results with the system. By testing the system, researchers can determine the advantages and disadvantages of the system built and whether it is to the needs.

6. Implementation
    The system implementation phase is completing the design contained in the document, namely the approved system design and testing, installing, starting, and using a new system or an improved system.

Data collection technique
The data collection technique is a systematic and objective method to obtain and collect data and information checked in detail and correct. The author's data collection techniques in this study are as follows:
1. (Field Research)
a. Observation (observation)
    Observation is one of the methods of collecting data by going directly to the field, located at Jl Peninsula, Sirantau Village, Datuk Bandar District, Tanjungbalai City, to observe the problems that occurred in the Image Printing with Tanjungbalai.
b. Interview (interview)
    After carrying out the observation process, the author collects data by asking several questions directly to the printing press owner named Mr. Horis Firmansyah Lubis and continued by a printing officer named Kiki, who served as editor.
c. Documentation
    Documentation is retrieving data obtained through the Joint Image Printing party. In this case, the author takes data by recording some of the information submitted by the officer and printing using books.

2. Research (Library Research)
    Conduct research by collecting data from various journals, previous research, and books in the STMIK Royal Kisaran library related to the current study.

Data analysis technique
The analysis technique currently running at Citra Bersama printing which is engaged in the printing business has one of the problems related to the marketing of its products which is still limited to face-to-face sales. No information system can carry out sales promotions in areas far from the printing location. From these problems, build a better and more efficient system. The plan to be designed is web-based. This system is expected to make it easier for customers or consumers to order

185

products online and help the printing company to get new customers from time to time via the web created using the CRM method (Ayu & Fitri, 2019).

Aids in System Design

Information System Flow

According to Zefriyenni and Santoso, the flow of information systems is beneficial for finding out the problems in a system. Whether the information system is still suitable for use is manual or computerized. If the information system is no longer feasible, it is necessary to make changes in data processing to produce fast and accurate information and better decisions (Tanjung & Sukrianto, 2017).

Unified Modeling Language (UML)

Based on the journal, Dini Agustia Tri Suci et al. revealed: " Unified Modeling Language (UML) is not a process but a graphical modeling language for specifying, visualizing, building, and documenting all software system artifacts. This model aims to design the parts included in the system's scope and the relationship between the design and subsystems with other systems outside it. "Unified Modeling Language (UML) is based on graphics/images for visualizing, specifying an object-based software development system. Oriented (Heriyanto, 2018).

RESEARCH RESULTS AND DISCUSSION

Implementation is the stage of applying and testing the system based on the results of the analysis and design that has been done in the previous chapter to see the results of developing applications built according to plan. Expected by the programmer or not. The interface implementation on this system consists of three parts: the consumer interface, the implementation of the admin interface, and the owner interface.

The implementation of the consumer interface displays several menu options, including my profile, change password, shipping address, shopping cart, my order, Citra Bersama printing account, view vouchers, promotions, live chat, product assessment, shipping simulation, and log in. The implementation of the admin interface displays several menus, including the homepage, graphs, master data, announcements, stock management, and reports. Implementing the owner interface can only display a menu of options, namely the homepage, graphics, statements, and information. This system has several CRM features:

promotions, discounts, comments, live chat, and product ratings.

1. Form Display Login

Figure 1 . Login Form Display

Figure 1 is a login user interface by entering the previously registered username and password.
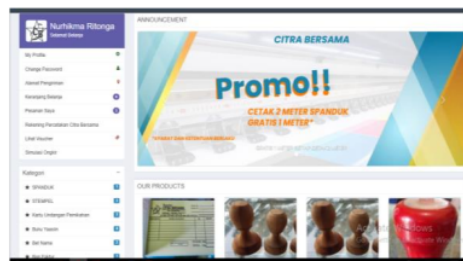
2. Main Page View

Figure 2. Main Page Display

Figure 2 is a display from the main page or dashboard. After logging in, users can view and select products up to the stage of continuing to order products that have been previously set.
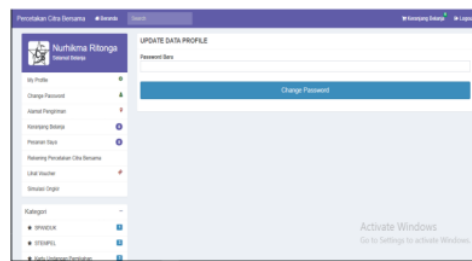
3. Change Password Menu Display

Figure 3. Display of the Change Password Menu

Figure 3 is a menu display to change the consumer's password as desired.
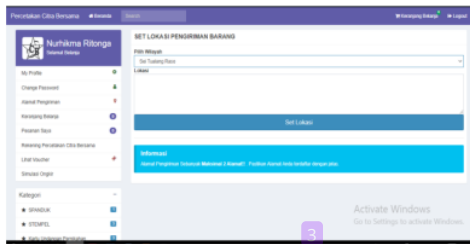
4.   Delivery Address Menu Display

Figure 4. Delivery Address Menu Display

Figure 4 is a display of the shipping address menu. Consumers can input their complete address to see the postage price and make it easier for the seller to send ordered goods to the consumer's address.
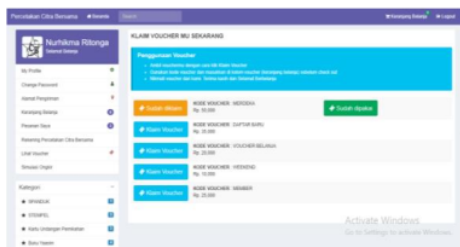
5.   View Form View Voucher

Figure 5. Display Form View Voucher

Figure 5 displays the voucher view form where consumers can see various types of vouchers given by the admin, and consumers can use the coupons at any time until the seller has determined the time limit. Suppose the voucher has passed the specified time limit, unused vouchers. Vouchers will display a green status with a description that has been used and not used. The group will still show voucher claims.
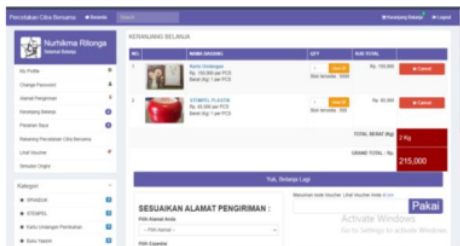
6.   Shopping Cart Display

Figure 6. Shopping Cart Display

Figure 6 is a display after consumers choose the desired product. Consumers see the selected product in the shopping cart menu. If you want to use a voucher, the consumer can enter the voucher code then the price will be cut automatically.
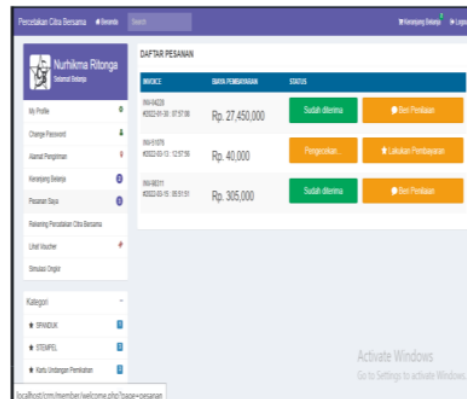
7.   Display My Order Form

Figure 7. My Order Form Display

Figure 7 displays my order menu form, where consumers can see the status of their order, whether it has been sent or not. In this menu, consumers can click the button to assess the quality of the goods received.
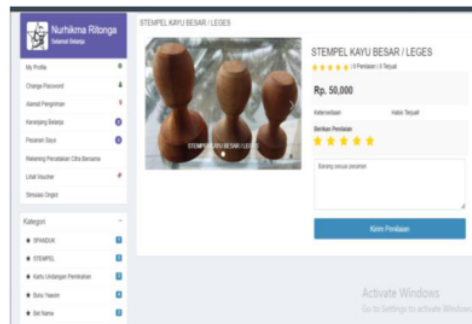
8.   Product Rating Form Display

Figure 8. Product Assessment Form Display

Figure 8 is a display after consumers receive the goods. Consumers can provide comments and product ratings by giving several stars according to the wishes of consumers, based on their satisfaction whether the product is by the expected order or not.

9. Goods data report results

Figure 9. Goods data report results

Figure 9 is a display of the results of the item data report, which contains the item code, item name, and item price description

10. Sales data report results

Figure 10. Sales data report the result

Figure 10 displays the sales report at the Citra Bersama printing press.

11. Customer Result Report

Figure 11. Customer Result Report

Figure 11 displays the results of the Citra Bersama Printing customer data report, which will assist the printer in knowing who the customers are.

CRM System Test Result

The following are the results of testing the design of an e-commerce system for selling products and services at Citra Bersama Printing, seen in table 1 below:

Table 1. CRM System Test Result

Process	Succes/Valid
Test: Login Test Description: Verification of username and password accessed by registered users. Input Data : Username: hikma Password: 12345 - Expected results : Enter login data; fill in the username and password, then click the login button. If the data entered is correct, it will enter the main menu or dashboard.	Success
Testing: See Printing Promo Process Test Description : After entering the username and password, you will enter the home page. Input Data : Click the slide section: - Expected results : Will display ANNOUNCEMENT various promotional information in printing.	Success
Testing: Live Chat Test Description : If you already have the application, click the button with the WhatsApp logo on the customer's WhatsApp page. You will download it first if you haven't downloaded the application yet. Input Data: Click Live Chat: - Expected results : Enter the WhatsApp private chat page, and it will make it easier	Success

Process	Succes/Valid
for customers to ask questions about marketed products without time constraints.	

Testing: Process view voucher

Test Description :
Claim and choose available vouchers.

Input Data : Klik Menu Voucher: - Expected results : Go to the voucher page and display the voucher list.	Success
Klik Klaim Voucher: - Expected results : Claim the voucher, and save it into the database.	

Testing: Product Appraisal Process Test Description : Click on my order. If the customer has received the goods, click on the "Give a Rating" button, displaying two switches, namely comment and rate or return.	
Input Data : Click Give Comments And Ratings: - Expected results : Go to the product assessment page with a choice of 5 stars. If the customer is satisfied, he will give five stars, add or fill out comments according to customer satisfaction, and save them to the database.	Success

CONCLUSIONS AND SUGGESTIONS

Conclusion

Some conclusions on the e-commerce system design at Citra Bersama Tanjungbalai Printing using a web-based CRM method, with the e-commerce design, online sales can facilitate Citra Bersama Printing in marketing the products it sells and assist in expanding the sales of goods and services it markets.

Suggestion

Operators must be knowledgeable about computer technology and information technology, conduct training in managing the e-commerce web created so that the system runs properly and efficiently, and promote social media so that the products and services marketed are known to many people who can make purchases online.

REFERENCES

Ayu, F., & Fitri, N. (2019). Perancangan Sistem Informasi Pemesanan Wedding Organizer Online. *Jurnal Intra-Tech*, *3*(2), 92–104. Retrieved from https://www.journal.amikmahaputra.ac.id/index.php/JIT/article/view/52

Budiarti, P., & Andah, B. D. (2019). Website Electronic Customer Relationship Management Untuk Meningkatkan Jumlah Nasabah Bpr Dhana Semesta. *IDEALIS : InDonEsiA JournaL Information System*, *2*(6), 199–206. Retrieved from https://jom.fti.budiluhur.ac.id/index.php/IDEALIS/article/view/1499

Ciptiyani, M. (2021). Implementasi Customer Relationship Management Dalam Mempertahankan dan Meningkatkan Jumlah Nasabah Pembiayaan Mitraguna Berkah (Studi Pada PT. Bank Syariah Indonesia,Tbk KCP Ajibarang). IAIN Purwokerto.

Fransiska, D. (2021). *Persepsi Masyarakat Nagari Salayo Tanang Bukit Sileh Kecamatan Lembang Jaya Terhadap Bank Nagari Syariah Cabang Kota Solok*. IAIN Batusangkar.

Heriyanto, Y. (2018). Perancangan Sistem Informasi Rental Mobil Berbasis Web Pada PT. APM Rent Car. *Jurnal Intra Tech*, *2*(2), 64–77. Retrieved from https://journal.amikmahaputra.ac.id/index.php/JIT/article/view/35

Kifti, W. M., & Swaradana, W. (2020). Analisis Dan Perancangan E-Marketing Dengan Konsep Customer Relationship Manajemen (CRM). *Journal Of Science And Social Research*, *3*(1), 57–63. Retrieved from http://jurnal.goretanpena.com/index.php/JSR/article/view/390/320

Leatemia, S. Y. (2020). Adopsi e-commerce pada UMKM di era Pandemi Covid-19 (Studi Kasus pada UMKM di Kota Ambon). *Soso-Q: Jurnal Manajemen*, *8*(2), 1–11. Retrieved from https://ojs.unpatti.ac.id/index.php/sosoq/article/view/1144

Prasetio, A. (2012). Pengaruh Kualitas Pelayanan dan harga terhadap Kepuasan Pelanggan. *Management Analysis Journal*, *1*(4), 1–8.

Accredited rank 3 (SINTA 3), excerpts from the decision of the Minister of RISTEK-BRIN No. 200/M/KPT/2020

Retrieved from https://journal.unnes.ac.id/sju/index.php/maj/article/view/497

Rahadi, F. P., & Sasmita, S. (2021). Pengaruh Pengendalian Internal Bisnis Online Terhadap Pencegahan Fraud. *Jurnal Akuntansi UMMI*, *I*(2), 97–105. Retrieved from https://www.jurnal.ummi.ac.id/index.php/jammi/article/view/1149

Tanjung, I., & Sukrianto, D. (2017). Perancangan Sistem Informasi Rekam Medis Terpadu Dalam Upaya Meningkatkan Pelayanan Rumah Sakit Jiwa Tampan Prov. Riau. *Jurnal Intra Tech*, *1*(1), 43–54. Retrieved from https://www.journal.amikmahaputra.ac.id/index.php/JIT/article/view/3

Wirhan Fahrozi, Samsir, S., & HTS, D. I. G. (2020). Penerapan E-Commerce Pada Toko Bunga Underwear. *U-NET Jurnal Teknik Informatika*, *4*(1), 19–24. https://doi.org/10.52332/u-net.v4i1.161

Yahya W, Y. (2012). Penerapan CRM (Customer Relationship Management) Pada Perusahaan Dagang. *Jurnal Ekonomika Dan Manajemen*, *1*(2), 31–36. Retrieved from https://journal.budiluhur.ac.id/index.php/ema/article/view/284

IMPLEMENTATION OF E-COMMERCE IN PERCETAKAN CITRA BERSAMA TANJUNGBALAI USING THE CRM METHOD

8 e-jurnal.pelitanusantara.ac.id
Internet Source

<1%

9 Ahmad Maulani, Sovia Mas Ayu, Oki Dermawan, Muhammad Akmansyah. "The Development of Android-Based Islamic Education Learning Media", Tarbiyah : Jurnal Ilmiah Kependidikan, 2021
Publication

<1%

10 T Suryana, I Oktaviany, N P Dewi. "Website-based Al-Quran memorization monitoring and evaluation system design", Journal of Physics: Conference Series, 2021
Publication

<1%

11 doaj.org
Internet Source

<1%

12 ejournal.unuja.ac.id
Internet Source

<1%

Exclude quotes   On   Exclude matches   Off
Exclude bibliography   On