

OPTIMIZING CUSTOMER RELATIONSHIPS THROUGH CUSTOMER RELATIONSHIP MANAGEMENT AT HANDMADE WILLY

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Abstract: The development of globalization and digitalization requires businesses to not only focus on product quality, but also on the ability to build and maintain long-term relationships with customers. Customer loyalty has become a strategic asset that influences business sustainability and competitiveness. Handmade Willy, a creative business engaged in the production and sale of handicrafts, faces various problems in customer management, such as difficulties in identifying customer preferences, limitations in ongoing communication, suboptimal customer segmentation, and the absence of a structured system for monitoring customer satisfaction and feedback. These problems have an impact on the ineffectiveness of marketing strategies and the potential decline in customer loyalty. This study aims to optimize customer relationships at Handmade Willy through the application of the Customer Relationship Management (CRM) concept. The research method used is descriptive analysis with a qualitative approach through data collection from observation, interviews, and literature studies. The blackbox testing results show that the system runs smoothly without any obstacles. The implementation of CRM helps Handmade Willy understand customer characteristics and preferences, perform more accurate segmentation, improve communication effectiveness, and systematically monitor customer satisfaction.

Keyword: customer loyalty; customer relationship management; handmade willy.

Abstrak: Perkembangan era globalisasi dan digitalisasi menuntut pelaku usaha untuk tidak hanya berfokus pada kualitas produk, tetapi juga pada kemampuan membangun dan mempertahankan hubungan jangka panjang dengan pelanggan. Loyalitas pelanggan menjadi aset strategis yang berpengaruh terhadap keberlanjutan dan daya saing bisnis. Handmade Willy sebagai usaha kreatif yang bergerak di bidang produksi dan penjualan kerajinan tangan menghadapi berbagai permasalahan dalam pengelolaan pelanggan seperti kesulitan dalam mengidentifikasi preferensi pelanggan, keterbatasan komunikasi berkelanjutan, belum optimalnya segmentasi pelanggan serta belum adanya sistem yang terstruktur untuk memantau kepuasan dan umpan balik pelanggan. Permasalahan tersebut berdampak pada kurang efektifnya strategi pemasaran dan potensi penurunan loyalitas pelanggan. Penelitian ini bertujuan untuk mengoptimalkan hubungan pelanggan pada Handmade Willy melalui penerapan konsep Customer Relationship Management (CRM). Metode penelitian yang digunakan adalah analisis deskriptif dengan pendekatan kualitatif melalui pengumpulan data observasi, wawancara dan studi literatur. Hasil pengujian blackbox menunjukkan sistem yang dibuat berjalan dengan lancar tanpa ada kendala. Dengan penerapan CRM mampu membantu Handmade Willy dalam memahami karakteristik dan preferensi pelanggan, melakukan segmentasi yang lebih tepat, meningkatkan efektivitas komunikasi serta memantau kepuasan pelanggan secara sistematis.

Kata kunci: customer relationship management; kerajinan tangan willy; loyalitas pelanggan.

INTRODUCTION

In today's era of globalization and digitalization, business competition is increasingly fierce and requires every company to be able to provide added value to its customers [1]. Companies are not only required to produce quality products, but also to build close and sustainable relationships with consumers [2]. This is because the success of a business is not only measured by its ability to sell products, but also by its ability to retain customers and create long-term loyalty [3]. Customer loyalty is a strategic asset that can provide competitive advantages and stability in business growth [4].

Handmade Willy is a business engaged in the production and sale of handmade products such as dowry frames, bloomboxes/balloon gifts, hampers, buckets, snack towers, various frames, and others. As a small to medium-sized creative business, Handmade Willy faces several challenges in customer management that affect business performance. One of the problems that arises is the difficulty in accurately identifying customer preferences [5]. Many customers have different tastes, but Handmade Willy does not yet have a method to tailor products or services to individual needs, so sales potential is sometimes not optimal. Additionally, Handmade Willy faces obstacles in establishing consistent communication with customers [6].

Interactions are usually limited to the transaction itself, while efforts to maintain long-term relationships by providing information on new products or special promotions are still rare. As a result, customers tend to forget or switch to competitors who are more proactive in building communication. Another

problem is the difficulty in segmenting customers. Handmade Willy sells products with different prices and types, but the company has not been able to group customers based on purchasing behavior, interests, or financial capabilities. This makes marketing strategies less targeted and impacts the efficiency of promotions [7]. In addition, Handmade Willy faces challenges in systematically monitoring customer satisfaction and feedback [8]. Information about complaints, suggestions, or customer satisfaction levels is only recorded manually, making it difficult to analyze for product or service improvement [9]. As a result, some customer issues are not addressed quickly and opportunities to increase loyalty are missed [10].

One approach that can help overcome these various problems is Customer Relationship Management (CRM) [11]. CRM is a business strategy that focuses on managing interactions with customers in an integrated manner, from data collection and behavior analysis to the development of more targeted communication and promotion strategies [12]. More deeply, CRM not only acts as a system or software, but also encompasses a philosophy and strategic approach that places customers at the center of all business activities [13]. CRM helps companies identify customer needs, design appropriate service strategies, and build long-term relationships through accurate and centralized customer information management [14].

Several previous studies have examined the implementation of CRM in various business contexts. Research by Putra [15] and Firmansyah & Herdin [16] emphasized that CRM systems improve customer satisfaction and service

management efficiency. Similarly, Ariska et al. [4] and Anggara et al. [10] demonstrated that web-based E-CRM systems enhance sales processes and digital customer data management. Meanwhile, studies by Siregar et al. [12] and Ramadhani et al. [13] focused on implementing E-CRM in small and medium enterprises (SMEs), highlighting improvements in transaction recording and promotional management.

However, when analyzed comparatively, most previous studies primarily focused on system development and technical implementation, with limited discussion on how CRM conceptually optimizes long-term customer relationships in small creative businesses. Some studies emphasized sales system automation, while others focused on customer segmentation or recommendation features, but they did not comprehensively analyze how CRM implementation integrates customer preference identification, communication continuity, segmentation accuracy, and systematic satisfaction monitoring within one strategic framework.

In addition, previous research tends to measure CRM success from system functionality rather than from its strategic role in strengthening sustainable customer loyalty. The context of creative handmade businesses, which rely heavily on personalization and emotional value in customer relationships, has also received limited specific attention in prior studies. This indicates a research gap in exploring CRM not merely as a technological tool, but as an integrated strategic approach to optimize customer relationship management in creative SMEs.

Therefore, this study differentiates itself by focusing on the strategic optimization of customer relations at

Handmade Willy through the conceptual and practical implementation of CRM. Unlike prior research that emphasizes system functionality, this research integrates preference identification, segmentation, communication management, and feedback monitoring into a unified CRM framework to strengthen customer loyalty sustainably.

With the implementation of CRM, Handmade Willy is expected to understand customer preferences, perform effective segmentation, monitor customer satisfaction regularly, and build more consistent and personalized communication [17].

METHOD

The following are the stages of research conducted in Image 1.

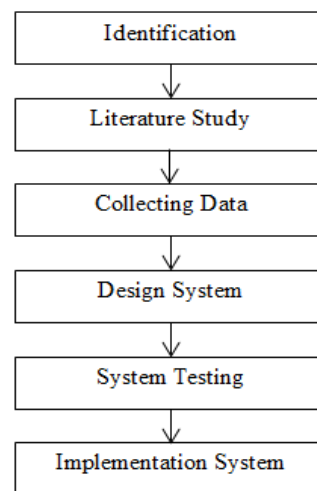


Image 1. Stage of Research

Identification

Handmade Willy faces several problems in customer management, including manual data recording and purchase history, making it difficult to monitor customer preferences and behavior. Communication with customers is only carried out during

transactions without any follow-up to maintain long-term relationships. In addition, there is no system in place to segment customers based on their interests and purchasing behavior, resulting in promotional strategies that are not targeted effectively. Handmade Willy also lacks an effective mechanism for regularly monitoring customer satisfaction and feedback. Therefore, it is necessary to implement Customer Relationship Management (CRM) to integrate customer data, strengthen relationships, and improve service effectiveness and customer loyalty.

Literature Study

A literature study was conducted to gather theories and previous research results related to the application of Customer Relationship Management (CRM). This stage aims to provide a scientific basis for understanding the concept of CRM, customer communication strategies, and the use of information technology to improve customer satisfaction and loyalty at Handmade Willy.

Collecting Data

Data was collected through interviews and observations of Handmade Willy's owners and employees to understand the service and sales processes, as well as the challenges in managing customers. This data formed the basis for designing a CRM system that suits the business's needs.

Design System

System design using Unified Modeling Language (UML) visualized using Microsoft Visio. The UML diagrams to be used are Use Case Diagrams, Activity Diagrams, and Sequence Diagrams.

System Testing

The trial phase is conducted to assess whether the designed system meets user requirements. Once the design is complete, the system will be developed using the PHP programming language and MySQL database. Testing is conducted using the Blackbox Testing method to ensure that all system functions run according to the specified specifications. If any discrepancies are found, the system will be evaluated and corrected until it functions optimally according to user expectations.

Implementation System

After the system has been tested and deemed feasible, CRM will be implemented in Handmade Willy's operational activities to improve service effectiveness, strengthen customer relationships, and increase loyalty and sales on an ongoing basis.

RESULT AND DISCUSSION

Design System

System CRM illustrates the overall structure of the proposed CRM system involving three main actors: Admin, Owner, and Customer. Each actor has different access rights and system functionalities according to their roles in managing customer relationships at Handmade Willy.

The Admin is responsible for managing operational data within the system. Admin can log in to the system, manage product data (add, edit, delete products), manage customer data, monitor transaction information, and review customer feedback. Admin also ensures that promotional information and product updates are properly displayed so

that customer communication runs effectively.

The Owner (business owner) has a managerial role with access to monitoring and evaluation features. The owner can view customer reports, transaction summaries, customer segmentation data, and review analysis results. Through these features, the owner can evaluate customer behavior, identify loyal customers, and formulate marketing strategies based on CRM data analysis.

The Customer interacts directly with the system through registration, login, viewing product details, adding items to the cart, completing checkout, viewing transaction history, and providing product reviews. Customer activities are automatically recorded in the database, enabling systematic tracking of purchase behavior, preferences, and satisfaction levels.

Overall, the system integrates operational, managerial, and customer interaction processes into one unified CRM platform to support structured relationship management and long-term customer loyalty improvement.

Detail Product

Display complete information about the selected product, such as description, price, stock availability, product images, and buttons to add to cart or wishlist.

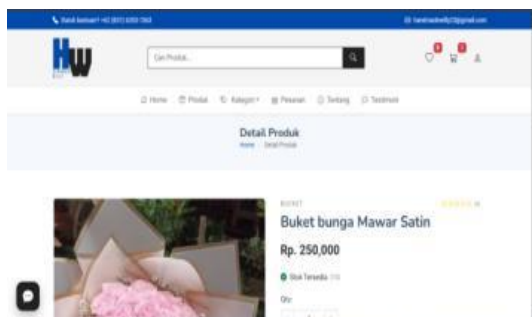


Image 2. Detail Product

Cart Page

This page contains a list of products that users have added to their shopping cart. Users can change the quantity, remove items, or proceed to checkout.

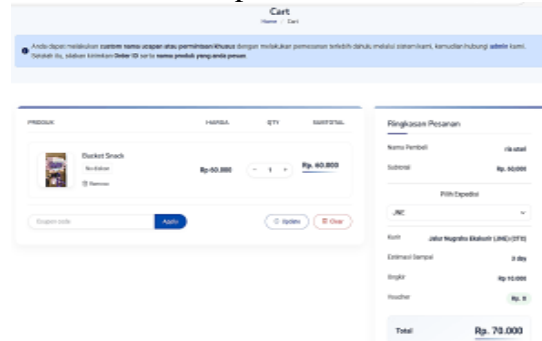


Image 3. Cart Page

Checkout

The page for the final purchase process includes product confirmation, shipping address, payment method, and use of discount vouchers if available.



Image 4. Checkout Page

Transaction Information

The details page of one of the transactions, including information about the product purchased, payment method, shipping status, and proof of payment.

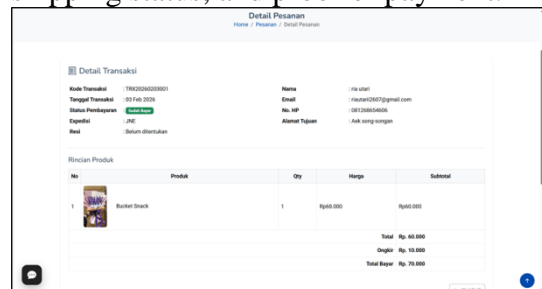


Image 5. Transaction Information

Review

Users can provide reviews of products they have purchased, including star ratings and comments. These reviews will be displayed on the product page.

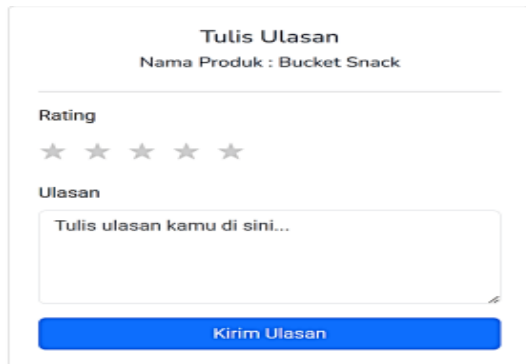


Image 6. Review Page

The Transaction Information feature enhances communication continuity. By allowing customers to monitor payment status and shipping information, the system reduces uncertainty and improves service transparency. This supports more consistent interaction beyond the initial transaction phase.

Most importantly, the Review feature plays a strategic role in systematically monitoring customer satisfaction. Technically, the system stores customer ratings and textual feedback in a structured database table associated with product and transaction IDs. This enables the company to quantify satisfaction levels (e.g., average rating per product) and identify recurring complaints. Unlike previous manual recording methods, this feature provides measurable and analyzable satisfaction indicators, allowing management to perform data-driven service improvements.

Overall, the implementation demonstrates that CRM in this study is not limited to interface development, but

functions as an integrated mechanism for preference identification, communication management, segmentation support, and systematic satisfaction monitoring thereby directly addressing the research problems and supporting long-term customer loyalty development.

Blackbox Testing

System testing was conducted using the Blackbox Testing method to ensure that all functions. The following are the results of blackbox testing.

Table 1. Blackbox Testing Result

Input Data	Process	Result
Clicking the add to chart button	The system saves the input data into the database and displays the data on the cart page.	Success
Clicking the Product Details button	Display data on the product detail page	Success
Clicking on the product category link	Display data according to category on the product page	Success
Clicking the checkout button	The system saves input data into the database	Success
Upload proof of payment	The system saves input data into the database	Success

Input Data	Process	Result
Clicking the order received button	The system saves input data into the database	Success
Enter complete category data	The system saves input data into the database	Success
Complete product data input	The system saves input data into the database	Success
Clicking the order verification button	The system saves input data into the database	Success

CONCLUSSION

The conclusion that can be drawn from this study is that the design of a Customer Relationship Management (CRM) system can help Handmade Willy identify and manage customer preferences in a more structured manner so that the company can better understand customer needs and tastes. The designed CRM system supports the creation of more consistent interactions between Handmade Willy and its customers, not only during transactions but also in efforts to maintain long-term relationships through the delivery of new product information and special promotions. The implementation of the CRM system enables the systematic management of customer feedback so that information in the form of suggestions and complaints can be used as evaluation material to improve service quality and customer satisfaction at Handmade Willy.

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