

Application of Customer Relationship Management in Maintaining Customer Loyalty (Case Study Hotel Melati)

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Abstract

This research aims to address the challenges and implement Customer Relationship Management (CRM) in a web-based budget hotel, Hotel Melati, for online bookings, accessing the latest promotional information, and providing online feedback. The study focuses on exploring the novel aspects of implementing CRM in the context of a budget hotel and its impact on maintaining customer loyalty. The research adopts a mixed-methods approach, utilizing interviews and observations for data collection. The development methodology follows the Waterfall method, encompassing sequential steps of analysis, design, implementation, testing, and maintenance. SWOT analysis is employed to identify strengths, weaknesses, opportunities, and threats. UML is used for the design phase, PHP for coding, and MYSQL as the database. Black box testing is conducted to evaluate the application's performance. The results of the black box testing demonstrate that the implemented application functions effectively. The questionnaire results show a satisfaction rate of 82.17%. Based on the feasibility assessment, the findings suggest that the implemented solution is highly suitable for addressing the identified challenges and maintaining customer loyalty.

Keywords: Customer Relationship Management; Customer Loyalty; Web-Based Application; SWOT Analysis.

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Introduction

A company's success today is not merely determined by high-profit margins but by its ability to establish long-term positive interactions with its customers (Singh et al., 2022). Building long-term relationships creates customer loyalty, which can serve as a competitive advantage for the company (Juanamasta et al., 2019). Customers often face challenges in obtaining the latest information, such as promotions or changes in products or services, as well as providing feedback on hotel services (Naeem, 2019; Tien et al., 2021). If customers are unaware of this information, the results obtained will not be optimal. To avoid such issues, the implementation of Customer Relationship Management (CRM) is necessary.

The problem faced by Melati Hotel services is the lack of an information system, making it difficult to access the latest information. In addition, receptionists often face challenges in handling customer complaints. In this digital era, it is very difficult to get customers who are very loyal to a brand. Therefore, the implementation of Customer Relationship Management is very necessary to maintain and build loyalty within the hotel.

Related research studies that are relevant to the implementation of Customer Relationship Management (CRM) have been conducted by previous researchers. (Nure, 2018) conducted a study focusing on the benefits of implementing CRM in the banking sector of Kosovo. The research aimed to define strategies and adapt organizational structures, culture, and processes with the aid of modern technology. Utilizing both quantitative and qualitative research methods, the study evaluated the impact of CRM on the evolving banking sector in Kosovo, providing valuable insights to enhance customer relationships and achieve long-term success.

(Hanaysha & Mehmood, 2022) Conducted a study to explore the linkages between CRM practices and organizational performance in the Palestinian banking sector. Through an online survey, data were collected from employees working in the banking industry. The findings highlighted the significant positive effects of customer orientation and CRM organization on organizational performance. Additionally, the study emphasized the crucial roles played by CRM

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technology and knowledge management in influencing organizational performance. These findings underscored the need for effective CRM practices to fulfil long-term objectives and overcome emerging challenges.

(Azzam, 2014) focused on investigating the impact of CRM on customer satisfaction in the banking industry of Jordan. The study utilized questionnaires administered to customers of Jordanian banks in Amman to examine the relationship between CRM elements, including service quality, employee behaviour, customer database, problem-solving, physical environment, social network interaction, and customer satisfaction. The findings revealed a significant positive relationship between these CRM elements and customer satisfaction. The study highlighted the importance of CRM in the service industry, particularly the banking sector, and emphasized the necessity of effective CRM practices to achieve the ultimate goal of customer satisfaction and build strong customer relationships.

Based on the provided background, the implementation of Customer Relationship Management (CRM) in maintaining customer loyalty at Hotel Melati is crucial. By adopting CRM strategies, the hotel can effectively address customer complaints that have previously gone unattended. The company stands to benefit from improved customer loyalty, which, in turn, can attract new customers and enhance profitability.

Method

In this research, the design of the application system is implemented using the waterfall development method. The waterfall method follows a sequential approach, which includes phases such as Requirements, Specification, design, implementation, testing, and maintenance. By adopting the waterfall method, this research aims to ensure a systematic and well-structured application system development process, to achieve the desired goals effectively.

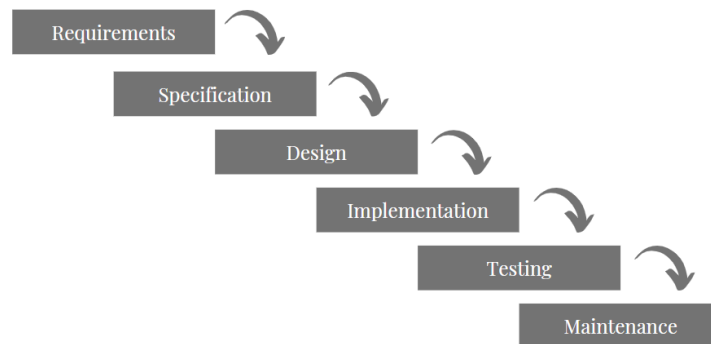


Figure 1. Waterfall Method Flow (Iskandar et al., 2022).

Requirements

This research involves several requirements categorized into hardware, software, information, and user aspects. Hardware requirements include a laptop or computer with specifications such as a minimum hard disk space of 1GB, and 2048 MB RAM. Software requirements consist of operating systems such as Microsoft Windows, MySQL for database management, an internet connection, and a web browser. Information needs involve direct interviews with Melati Hotel to understand the booking process, handle complaints, and obtain hotel and room data. Finally, user requirements include the design of a CRM application for the hotel, which includes different user roles and corresponding functions.

Specification

The specification for the research entails the specific details and features of the proposed CRM application for the hotel. The application design encompasses four user roles: the admin role responsible for managing the application and inputting data, the hotel manager role for system monitoring and accessing reports, the customer role enabling reservations through the website, and the receptionist role handling booking details, payments, and customer complaints. The application will be developed to provide an intuitive and user-friendly interface, ensuring seamless navigation and

interaction. Additionally, data security measures will be implemented to protect customer information. The CRM application will integrate with MySQL for efficient database management, enabling the storage and retrieval of relevant customer and hotel data. Furthermore, the application will support essential features such as booking management, complaint handling, and providing up-to-date hotel information and promotions.

Design

The design phase is useful in translating the identified requirements into tangible system components and interactions. One of the main techniques used in system design is the use case diagram. The use case diagram serves as a visual representation of the system's functionality from the user's or actor's point of view (Aman et al., 2023). This diagram provides a clear and concise picture of the system's behaviour, capturing the interaction between the user and the system (Kasmi et al., 2022).

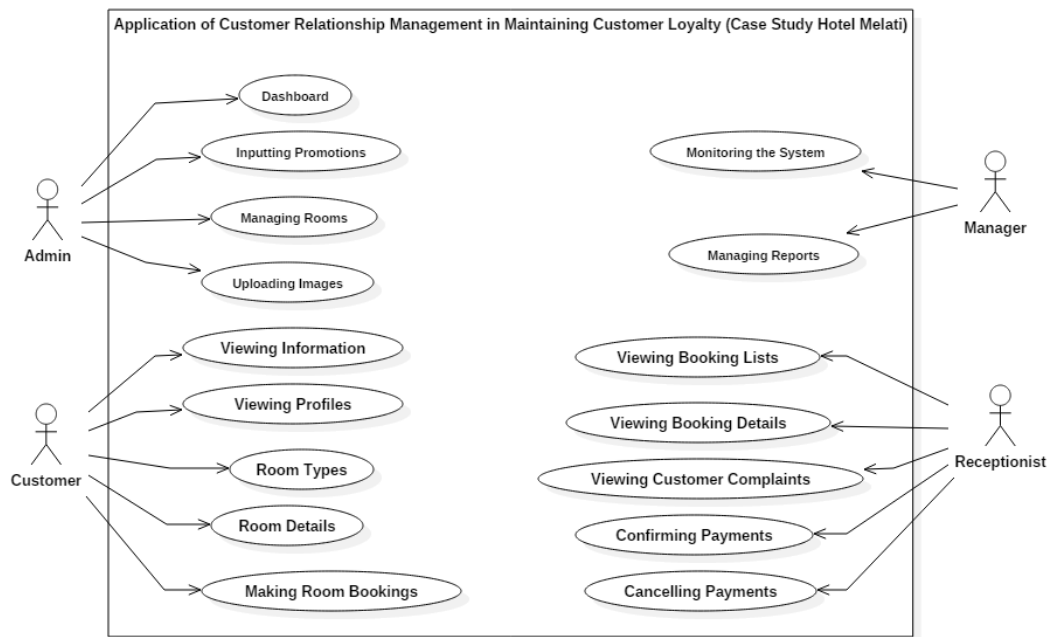


Figure 2. Use case diagram.

In Figure 2, the use case diagram is presented. The proposed system includes four actors: Admin as the application manager, User as the customer, Receptionist for handling customer complaints, and Manager who can monitor the system and view reports.

Table 1. SWOT Analysis for the Application of CRM in Hotel Melati.

Strengths	Strengths	Opportunities	Threats
1. Improved customer satisfaction	1. Limited customer base	1. Growing demand for online bookings	1. Intense competition
2. Streamlined booking process	2. Potential resistance to change	2. Customization and personalization	2. Technological advancements
3. Effective promotional strategies	-	3. Data-driven decision making	-
4. Enhanced customer loyalty	-	-	-

Table 1 presents a SWOT analysis for the implementation of Customer Relationship Management (CRM) at Hotel Melati. This analysis describes the strengths, weaknesses, opportunities, and threats associated with the implementation of CRM in the hotel. This analysis aims to provide a comprehensive understanding of the internal and external factors that can affect the success of CRM implementation and its effectiveness in maintaining customer loyalty.

Results and Discussion

Result

System implementation involves several stages to maximize the success of the deployment. First, the hardware and software requirements outlined earlier are purchased and set up to specification. This included installing the required operating system, database management system, and web browser. Next, the application system design, which includes use case diagrams and user interfaces, was implemented following the waterfall development method. The development team codes the system using an appropriate programming language, such as PHP and ensures proper integration with the database. Once coding is complete, rigorous testing is performed to identify and fix any bugs or errors. This includes black box testing to validate the functionality of the system and user acceptance testing to ensure the system meets the needs of the stakeholders. After successful testing, the system is ready for use and can be accessed by individual users, such as administrators, managers, receptionists, and customers.

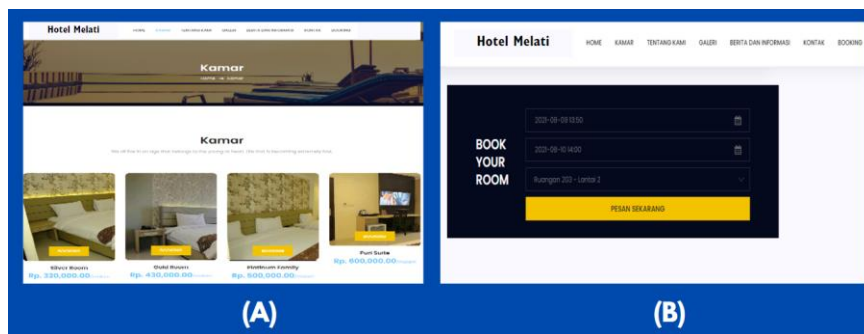


Figure 3. Customer page.

Figure 3 showcases the Admin Page, which consists of several sections. (a) Process of viewing and selecting rooms. This step explains the customer's process of accessing the website page to view and select rooms. It allows customers to make decisions based on their needs and preferences. (b) Customer reservation. This step represents the customer's action of reserving the chosen room on the website page. It involves providing the required information, such as check-in and check-out dates, personal details, and payment methods. The reservation process is completed when the customer confirms the booking.

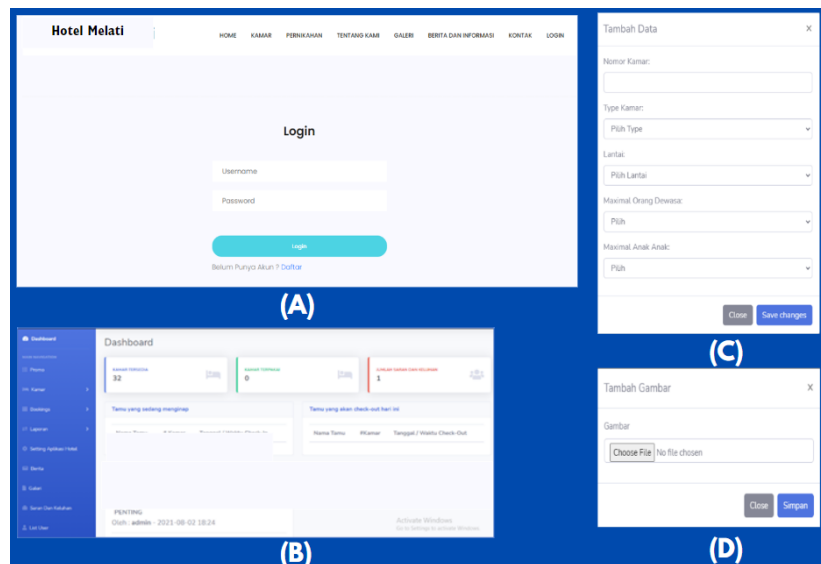


Figure 4. Admin page.

Figure 4 showcases the Admin Page, which consists of several sections. The first section (a) depicts the login process, where the admin enters their username and password to gain access. Once logged in, the admin can manage various aspects of the application. In section (b), the admin can handle promotional data, room management, and image uploads. This enables them to update and maintain information related to promotional offers, room details, and visual assets. Additionally, section (c) provides a form for adding new room data, allowing the admin to input details such as room number, type, floor, and maximum occupancy for adults and children. Lastly, section (d) presents a form specifically designed for image uploads.

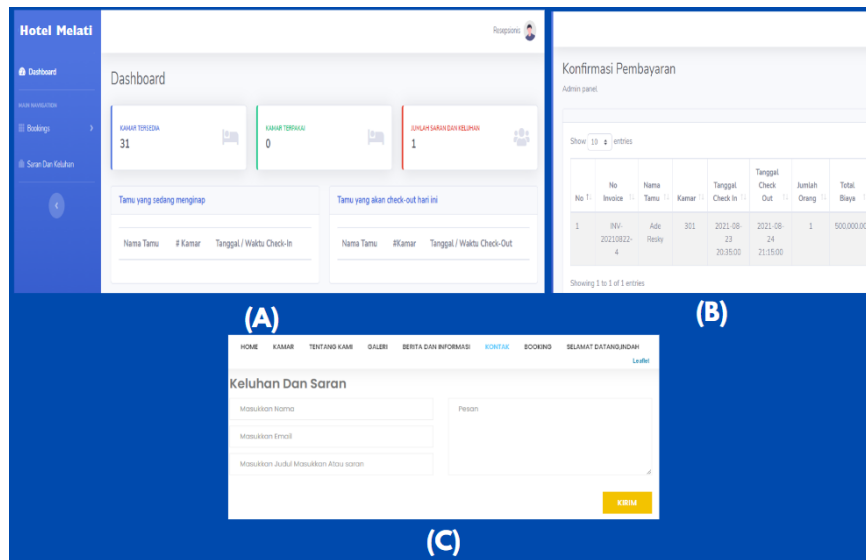


Figure 6. Receptionist page.

Figure 6 illustrates the Receptionist Page, which consists of several sections. In section (a), the dashboard page is displayed, providing the receptionist with an overview of important data, such as available rooms, occupied rooms, and the number of suggestions and complaints received. Section (b) presents the payment confirmation page, which is accessed by the receptionist to verify and process customer payments. Finally, section (c) displays the page dedicated to viewing customer complaints and suggestions, allowing the receptionist to address and respond to them accordingly.

Additionally, for the Manager's role in the system, they can monitor activities and access data reports. Managers can track and analyze the various activities happening within the system, ensuring smooth operations and identifying areas for improvement. In addition, managers also have access to complete data reports. This allows managers to make informed decisions, strategize, and implement necessary changes to improve overall performance and customer satisfaction.

Testing

The Webqual method testing questionnaire was given to collect user responses in this study. The purpose of this test is to assess the quality of web-based applications based on user perceptions and experiences. The questionnaire consists of a series of interview questions aimed at collecting feedback on various aspects of the application, including usability, information quality, and Service Interaction Quality.

Based on the feedback received from 13 customer respondents, the analysis yielded a score of 81.85%. Additionally, the average score obtained from 6 respondents who are hotel staff members, including receptionists, managers, and admins, amounted to 82.5%. By consolidating the results from both groups, the overall average score calculated was 82.17%. These findings indicate that the application of Customer Relationship Management (CRM) at Hotel Melati is deemed highly suitable, with a feasibility percentage of 82.17%. The positive results reflect the effectiveness of the implemented CRM system in enhancing customer satisfaction and optimizing hotel operations.

Maintenance

Maintenance is an essential aspect of any system to ensure its smooth operation and longevity. In the context of the implemented Customer Relationship Management (CRM) system at Hotel Melati, regular maintenance activities are crucial to uphold its functionality and address any issues that may arise. The maintenance process involves various tasks such as monitoring system performance, conducting routine updates and patches, and resolving any technical glitches or errors. Regular system monitoring allows for the timely detection of any abnormalities or performance degradation, enabling swift troubleshooting and minimizing any potential disruptions to the CRM system's operation.

Discussion

The findings from this study provide information regarding the implementation and effectiveness of Customer Relationship Management (CRM) at Hotel Melati. Analysis of the data collected highlights some key aspects relating to customer loyalty and satisfaction in the context of the hospitality industry.

The results showed that the usability of the CRM system was rated highly by both customers and hotel staff. The easy-to-use interface, intuitive navigation, and smooth booking process contributed to a positive user experience. These findings highlight the importance of a well-designed and user-centred CRM system in improving customer satisfaction and engagement. The average percentage value of 82.17% indicates positive acceptance of the CRM system by customers and hotel staff. This suggests that CRM has the potential to make a significant contribution to improving customer satisfaction, loyalty, and overall business performance.

The findings of this study are supported by existing research in the field of Customer Relationship Management (CRM) in the hospitality industry. Several studies have shown the positive impact of CRM implementation on customer satisfaction and loyalty. Research conducted by (Al-Hawary et al., 2018) found that hotels that effectively implemented CRM strategies experienced higher levels of customer satisfaction and increased customer loyalty. Similarly, research conducted by (Guillet, 2020) explored the role of CRM in improving customer experience in the hospitality industry. The research showed that hotels that integrated CRM systems across multiple touchpoints, such as online booking platforms and customer service interactions, achieved higher levels of customer satisfaction and repeat business. (Zaki, 2022) examined the impact of CRM on hotel performance indicators, including revenue and occupancy rates. The findings show a positive correlation between effective CRM implementation and improved financial performance. This study explains the role of CRM in facilitating targeted marketing campaigns, personalized promotions, and customer retention strategies.

Based on these findings, several recommendations can be made to further improve the effectiveness of CRM at Hotel Melati. First, update and maintain the CRM database regularly to ensure the accuracy and timeliness of the information provided. In addition, training programs should be conducted to improve the information management capabilities of hotel staff, so that they can use the CRM system more effectively.

Conclusions and Suggestions

Conclusions

In conclusion, the implementation of Customer Relationship Management (CRM) at Hotel Melati has proven to be very beneficial in increasing customer satisfaction, improving operational efficiency, and maintaining customer loyalty. Analysis of the survey results conducted on 13 customer respondents and 6 hotel management respondents (including receptionists, managers, and administrators) showed positive feedback and a high level of satisfaction with the CRM system. The customer survey results showed an average satisfaction score of 81.85%, indicating that the CRM system effectively meets the needs and expectations of hotel customers. In addition, hotel management respondents reported an average satisfaction score of 82.5%, indicating their positive experience and perception of the CRM system. The implementation of the CRM system has simplified the online booking process, provided access to promotional information, and facilitated an online feedback mechanism, resulting in an easy and convenient experience for both customers and hotel staff. System features, such as room selection, information availability, and booking confirmation, have contributed to increased customer satisfaction and loyalty. So it can be concluded that the implementation of CRM at Hotel Melati has successfully achieved its goals. High satisfaction scores from customers and hotel management

demonstrate the effectiveness of the system in improving customer service and streamlining hotel operations. The CRM system has played an important role in maintaining strong customer relationships and fostering loyalty.

Suggestions

Based on the successful implementation of CRM, the following recommendations are provided to further improve system performance and maximize its benefits:

1. Regular monitoring, updates, and maintenance should be performed to ensure the CRM system remains stable, secure, and up-to-date. This includes troubleshooting technical issues, applying security patches, and optimizing system performance.
2. Hotel staff should receive comprehensive training on how to use the CRM system effectively. This will enable them to use its features to their full potential and provide excellent customer service. In addition, a dedicated support team should be available to answer user queries or address technical difficulties.
3. Consider integrating the CRM system with other key hotel management systems, such as the reservation system, accounting software, and guest feedback platform. This integration will enable seamless data exchange, improve data accuracy, and provide a unified view of customer interactions and preferences.

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