

# DESIGN OF WEB-BASED USED MOTORCYCLE SALES INFORMATION SYSTEM ON MOTORCYCLE DEALERS

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**Abstract** - The condition of each used motorcycle has advantages and disadvantages with different specifications and features including in terms of price, type, transmission, technology, features, engine capacity, and others. By only relying on brochures, the sales system currently used is not effective. This often makes it difficult for consumers to see the motorbikes available at the Famously Motor showroom because this also has an impact on the decline in sales from the showroom. This research uses the PIECES approach, UML design and applications for web design with PHP and MySQL programming. Website-based motorcycle sales information system at Famously Motor showroom can help potential customers to see available motorbikes without having to come directly to the showroom.

**Keywords:** system information, sales, used motorcycles, website.

## INTRODUCTION

The advancement of information technology is currently very rapid. New technologies are emerging from various fields. Developments in the field of computer technology with telecommunications have created a revolution in the field of information systems. To find the desired item is now quite easy to find and can be done in a fairly short time with various technologies that are now provided (Mardikaningsih et al., 2015). Now there is no need to buy newspapers to find the desired motorcycle and also no need to guess the motorcycle that is suitable for purchase because the newspaper does not have a picture of the desired product. With the development of information technology, it is certainly very easy for buyers of goods to find the seller of the goods they want.

One of the information technology systems that is often used is web-based (Kiley et al., 2015). The rapid progress of trading businesses at this time makes information a very important role in supporting the operation of information systems in order to achieve the goals desired by business owners (Mardikaningsih & Darmawan, 2021). Internet technology has proven to be an effective information media in disseminating information that can be accessed by anyone, anytime and anywhere. Only from home or office space, potential buyers can see the product on a computer screen, access the information, order and pay with the available options. Online sales transactions have potential buyers from all over the world. Web-based information systems can improve communication performance between the parties involved in accessing them (Darmawan, 2012). With a display that is easy to understand, it can make it easier for users to find information and to get the items they want quite easily through gadgets connected to the internet (Wardayanti et al., 2022).

Vehicles are a means of transportation used by the community to carry out each of their activities and have now become a basic need (Mardikaningsih et al., 2022). Currently, there are too many motorcycles of all manufacturers and types. Each type of motorcycle has different specifications and each type of motorcycle certainly has advantages and disadvantages. Famously Motor specializes in the sale of used motorcycles to adapt to technological developments and wants to increase sales by utilizing sales information systems driven by the decline in Famously Motor showroom sales. This dealer is a company that serves the sale and purchase of used motorbikes of various brands and types of motorbikes, the sales system used has not utilized computerized technology, every motorcycle that comes and is sold only goes through a manual recording stage in the company's main book. The obstacle that is often found is the lack of effectiveness of sales services in terms of time and energy required, therefore, a web-based sales application is designed, which can conduct sales online with the aim of improving sales services, assisting in data processing and sales reports accurately and quickly. Sales have decreased significantly, especially due to this pandemic, customer interest in buying motorbikes has decreased, especially to come to the showroom. Therefore, the development of information technology can be used to facilitate sales transaction activities, one of the conveniences obtained from transaction activities, namely being able to see the product clearly without having to come to the seller's location and also making it easier to carry out the purchase and sales transaction process (Masrurroh, 2021). To provide a sense of trust to customers by providing specifications for motorcycle conditions.

The choice of web technology allows potential customers to access information on brands, types and motorcycle sales promotions currently available at Famously Motor retailers so that it is expected to increase sales. With the implementation of a motorcycle sales information system, it is hoped that it can improve the brand image of Famously Motor dealers, because customers will see Famously Motor dealers as motorcycle dealers who are different from other motorcycle dealers who have utilized web-based information technology in running their business. Based on this description, the plan is to build a website with the title "Design of a Website-Based Used Motorcycle Sales Information System at Famously Motor".

## RESEARCH METHODS

Researchers use qualitative and quantitative research methods where data is collected by conducting interview activities, studying sales reports, and studying references from previous researchers. Qualitative research method is a new method where the research process is less patterned because the research data is more about the interpretation of the data found in the field, while quantitative research method is a research method by conducting surveys and experiments in conducting research processes to find out user needs. After the object to be studied has been determined, the next step is to carry out the observation and interview stages. This stage is aimed at studying the problems that occur in the Famously Motor showroom. Data collection can be done by observation. At the observation stage, it can be seen that the showroom has not used a website-based sales method, therefore the author designs to build a website-based sales system that is easily accessible to customers. Thus, the buying and selling transaction process can run easily without the need for customers to come to the showroom. Interview is a method of obtaining data and information by asking people directly (Damayanti et al., 2011).

We hope that this survey can provide information about the needs proposed in the survey and the criteria related to the respondents and we attach the interview results. The author starts by designing the system created using UML (Unified Modeling Language). UML is a language used for object-oriented systems (Pressman, 2010). UML serves to find out and read information about program code and then interpreted into the form of diagrams. UML only serves to do modeling. So UML users are not limited to a particular methodology, although in fact UML is most widely used object-oriented methodology. Integrated database assembly using MySQL to implement a web-based motorcycle sales information system. After that the author designs the system by designing the Interface.

The test carried out is to use Black Box testing, namely, a software testing method by ensuring whether the resulting output matches the input value (Meinke, 2014). Blackbox testing is a program test based on the function of the program. The purpose of this blackbox method is to find malfunctions in the program. This method aims to find out whether the proposed system meets the requirements or not. If not, the next process is to retest the previous step. The purpose of this test is also to create or minimize system errors so that the proposed system helps end users solve existing problems. At this stage the author implements the program to the customer community to get a review of the system to make developments to the system.

## RESULTS AND DISCUSSIONS

An information system is a system that can produce useful information. Information system, which is a series of information in which there are parts that are related and interdependent with each other, starting from large parts to smaller parts, namely from sub, sub-sub, sub-sub-sub, and so on to the smallest (Dennis et al., 2012). Website or site can be interpreted as a collection of pages used to display text information, animation, sound or a combination of all of them, both static and dynamic, which form a series of interrelated buildings where each is connected by a network of pages (hyperlinks). In every website there is a first page called the home page, which is the opening page to briefly introduce what is the content of the entire website. The home page is in the top position, with related pages below it. Each page below the home page is called a child page or home page branches to other pages on the website, as well as to return to the home page. Often these branch pages also have hyperlinks to other pages below them. The following will be shown the Use Case Diagram of the Current System and the Use Case Diagram of the Proposed System presented in Figure 1 and Figure 2 as shown below.

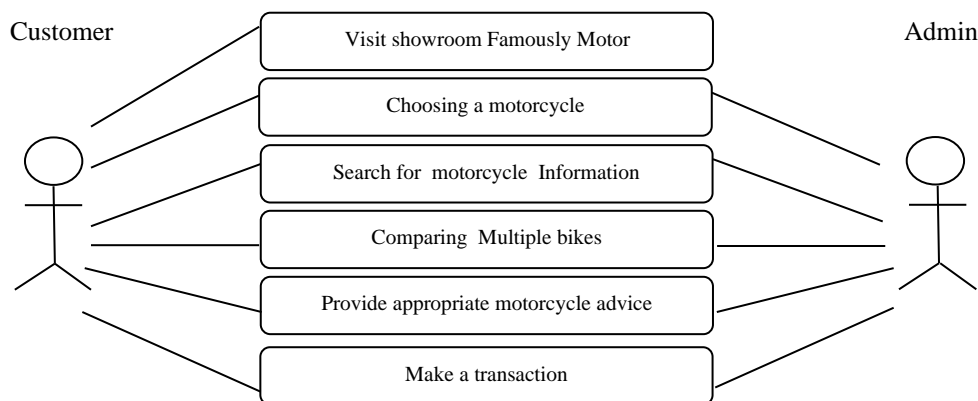


Figure 1. Use Case Running System Diagram

The description of the Running System Use Case is as follows: (1) prospective customers come to the showroom after seeing the direction of the brochure; (2) prospective customers see a motorcycle available in the showroom then prospective customers ask the sales about the condition of the motorcycle; (3) sales provide information related to the selected motorcycle; (4) prospective customers then compare several motorbikes available for consideration; (5) sales provide advice to prospective customers about motorbikes that are suitable for prospective customers; (6) after the prospective customer makes a choice, the prospective customer goes to the cashier to fill out the purchase form after filling out the form the consumer makes a payment transaction. Next, the Use Case Diagram of the Proposed System will be shown.

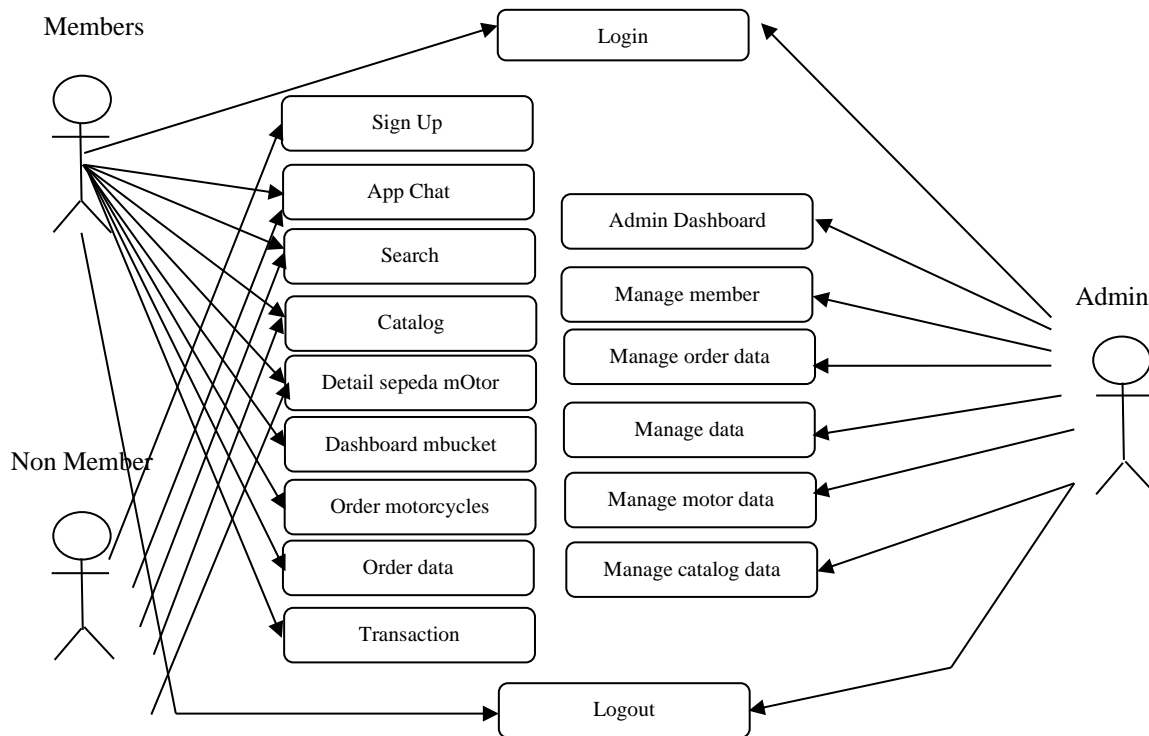


Figure 2. Use Case Diagram of the Proposed System

Description of the Use Case of the Proposed System are: (1) prospective customers register to register as members; (2) members and non-members can communicate with the admin via WhatsApp; (3) members and non-members can search for the desired used motorcycle; (4) members and non-members can see the used motorcycle catalog available at the showroom; (5) members and non-members can see the details of the selected motorcycle; (6) after seeing the details of the motorcycle, members can place an order for a motorcycle by selecting the order button; (7) after the member places an order, the member can view the order data for the selected motorcycle; (8) members can upload proof of payment on the order data menu; (9) after the transaction process is complete, members can log out of the showroom website.

With a website-based sales information system, it makes it easier for Famously Motor to manage data, such as stock items, sales transactions and daily, monthly and annual sales reports. The advantage of this website-based sales information system can provide optimal service to customers through effective information system support. Searching for goods can be done briefly, so customers will automatically feel happy and satisfied because it saves time. The website has better performance in maintaining data security, Famously Motor can determine special users / administrators who can access certain data so that people who are not given access rights cannot open it, so various errors and disturbances can be anticipated and corrected immediately. With the support of human resources and directed information systems, the company will be more productive. If the sales volume increases, the company's revenue will automatically increase. The motorcycle sales information system produced from this research has also been able to improve the performance of the process of monitoring and recording motorcycle dealer sales, this is very helpful for owners or leaders to get information and sales data quickly, precisely and accurately. However, the design of the information system still has some limitations, there are many things that need to be studied so for this reason the authors suggest further development of the designed information system, so that it becomes an integrated information system to cope, process larger data and a broader information system.

## CONCLUSIONS

In order to increase their sales, Famously Motor wants to build a website-based used motorcycle sales system application that can make it easier for prospective buyers to increase customer confidence and carry out the used motorcycle transaction process. The research method used is the SDLC method. The design of a web-based used motorcycle sales information system at Famously Motor consists of using the SDLC method which consists of planning, analysis, design testing, implementation and maintenance. With this web-based sales information system, the marketing division of the Famously Motor used motorcycle showroom can be facilitated in marketing because it is website-based which can direct potential customers to the website to see motorcycle units available in the website catalog so that it is easy to choose the right motorcycle as desired. Website-based sales information systems can make it easier for the human resource division to communicate with consumers, because this website-based sales information system already has a chat feature. This web-based sales information system makes it easier for the administration division to calculate the number of sales transactions and also to recapitulate vehicle data, because this web-based sales information system is integrated with the database.

The resulting information system can be implemented at other motorcycle dealers so that researchers hope that other motorcycle dealers are also willing to implement information technology. This will increase the efficiency and effectiveness of the sales process which can increase motorcycle sales results at the motorcycle dealer concerned. There needs to be further research related to the response of the community and customers who use motorcycle dealer services, whether customers feel comfortable and do not experience problems in making transactions with motorcycle dealers who have implemented information technology in carrying out their business processes.

## REFERENCES

- Damayanti, N., S. Hutomo, D. Darmawan & I. Wahyudi. (2011). *Penelitian Tindakan Kelas*, IntiPresindo Pustaka, Bandung.
- Darmawan, D. (2012). *Manajemen Informasi*, Metromedia, Surabaya.
- Dennis, A., H.B. Wixson & M.R. Roth. (2012). *System Analyst and Design*, 5th edition. Don Fowley Publisher, USA.
- Kiley, A.M., et al. (2015). Strategic Flexibility and the Virtue of Innovation in Responding to the Dynamics of Change. *The Journal of Management Studies*, 31(3), 865-878.
- Mardikaningsih, R., A. Gunawan, D. Darmawan & A. Karina. (2015). *Manajemen, Teknologi, dan Bisnis*, Addar Press, Jakarta.
- Mardikaningsih, R. & D. Darmawan. (2021). Peranan Sistem Informasi Persediaan terhadap Persepsi Kemudahan Penggunaan, Kegunaan Yang Dirasakan, dan Kepuasan Pengunjung Toko Buku. *Realible Accounting Journal*, 1(1), 43-57.
- Mardikaningsih, R., E. A. Sinambela, D. Darmawan, S. Arifin, Jahroni, A. R. Putra & M. S. Anwar. (2022). A Community Empowerment Through Motorcycle Reparation Training at Youth Organization. *Jurnal Pengabdian Kepada Masyarakat: Teknologi dan Aplikasi*, 3(2), 167-174.
- Masruroh, S. (2021). Pengaruh Persepsi Harga, Kualitas Layanan, Keragaman Produk dan Pengalaman terhadap Loyalitas Pelanggan di Bengkel Bandara Motor Brangkal Mojokerto, *Jurnal Ilmu Manajemen*, 1(1), 43-54.
- Meinke, K. (2014). Automated Black-Box Testing of Functional Correctness Using Function Automated Black-Box Testing Of Functional Correctness Using Function Approximation [ Extended Abstract ], (May). <https://doi.org/10.1145/1007512.1007532>
- Pressman, R. S. (2010). *Software Engineering A Practitioner's Approach* 7th Edition. (McGraw-Hill, Ed.). Raghathan Srinivasan, New York.
- Wardayanti, Y. P., F. M. Amin & A. Permadi. (2022). Analysis of Measurement of Readiness and Success of E-Learning Using the Method of Technology Readiness and Acceptance Model (TRAM) at The Islamic University of Darul Ulum Lamongan, 2(1), 5 – 14.