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Effectiveness of RAD Method On E-Commerce Based Sales System PT Battuta Jaya Center

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ABSTRACT

This research was conducted with the aim of building a sales information system in the raw publisher PT Battuta Jaya Center and to assist company management in providing sales. The system This web-based sales information system was built using Freamwork Codeigniter 3.1.0, Php MySql, Xampp, Adobe Illustrator and Blackbox Testing Method to test the system system. That way the result of this research is a sales information system that is used to transactions, purchases and recording sales reports that are more computerized, efficient and accurate. computerized, efficient and accurate.

Keywords: Sales Information System, Codeigniter Framework, Php MySql.

INTRODUCTION

In the current era of globalization, information technology plays a very important role in supporting various kinds of activities. Information technology is able to provide effectiveness and accuracy can organize company data both in large amounts and help companies in make decisions and strategies within company policy. (Yusdiardi, 2014) E-commerce is one of the products produced by the internet. (Hasanudin, 2019) Sales is something unified efforts to be developed through strategic plans that can be directed at business satisfaction of buyers' desires and company needs. Sales can be made by various ways, namely by cash or credit. Sales is one innovation that can be done carried out online on a web basis. (Andriani and Qurniati, 2018) Cindyah Collection is engaged in selling all children's and clothing adult clothes. Cindyah Collection has several children's and adult clothing products both men and women. Where sales are done manually so does not attract customers. The manual system is where employees make sales payments still using sales receipts so that making reports is hampered. Based on description of the problems above, it is necessary to create a sales information system that can solve the problem described above. By building an information system It is hoped that sales will be able to help solve various problems in order to achieve effectiveness and efficiency.

LITERATURE REVIEW

RAD (Rapid Application Development) Design Workshop

This is where in this phase it can be described and designed or can also be improved. During the RAD workshop the working design of the prototype can be responded to by the user and the modules will be analyzed and improved based on user responses.

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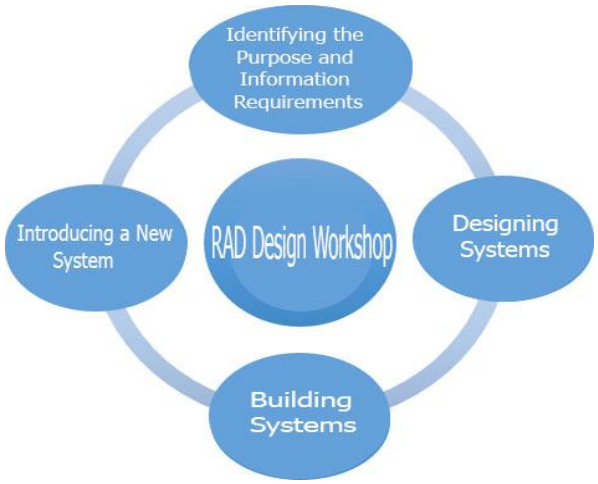

Figure 1. RAD (Rapid Application Development) Design Workshop

Basic Sales Concepts

Sales is an integrated effort to develop strategic plans directed at satisfying the needs and desires of buyers, in order to obtain sales generate profit or profits. So sales activities can be chronologically as follows: receiving orders, confirming orders, sending goods, creating invoices, creating reports sale. (Riandya, 2012).

RESEARCH METHODOLOGY

In this research, RAD (Rapid Application Development) is used because of this method uses an object-oriented approach to development. By using the method This can also speed up the time and costs in the process. RAD can also be developed as a suitable approach for web-based sales information systems. At the system design stage, the RAD method can involve potential users in the design. In this case, the RAD method has an advantage because it can involve system users so that the resulting system will be in accordance with the needs of the system users. Then RAD can be used as a strategy that has speed that can involve users and will add a series to the system which is finally developed in the final system.

RESULTS AND DISCUSSION

After conducting research and analysis on the Cindyah Collection, it is known that the system The one used is semi-computerized where it still uses Ms. Excel to create sales reports and that will result in quite a long time in the process. After knowing the system that is running, the next step is to design a sales information system web-based with the aim of maximizing product marketing, increasing sales figures and simplify the process of creating sales reports.

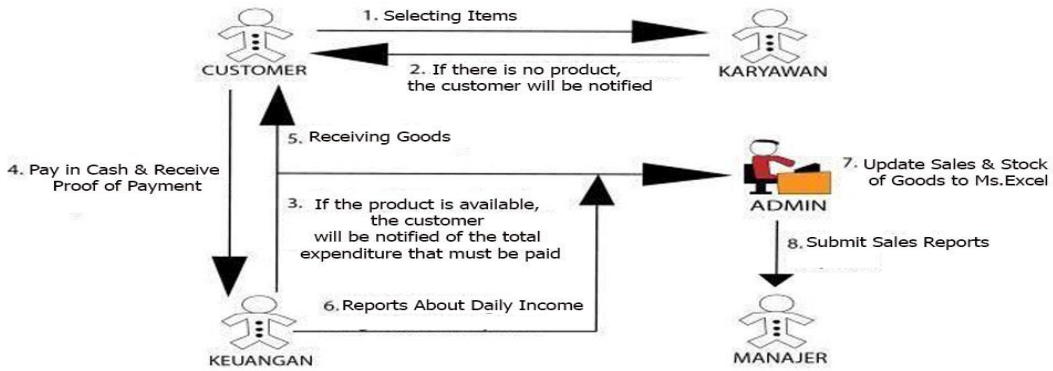

Figure 2. Analysis Of The Running System

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There are several proposed procedures whose aim is to improve the existing system. In designing and analyzing the proposed system, researchers used UML tools (Unfield Modeling Language) to describe use case scenarios, use case diagrams, activity diagrams, sequence diagrams and class diagrams.

Use Case Diagrams

Use case diagrams are used to describe interactions between actors and the system used. In this research, researchers used UML (Unfield Modeling Language) tools to describe the proposed system with a use case diagram, namely as follows.

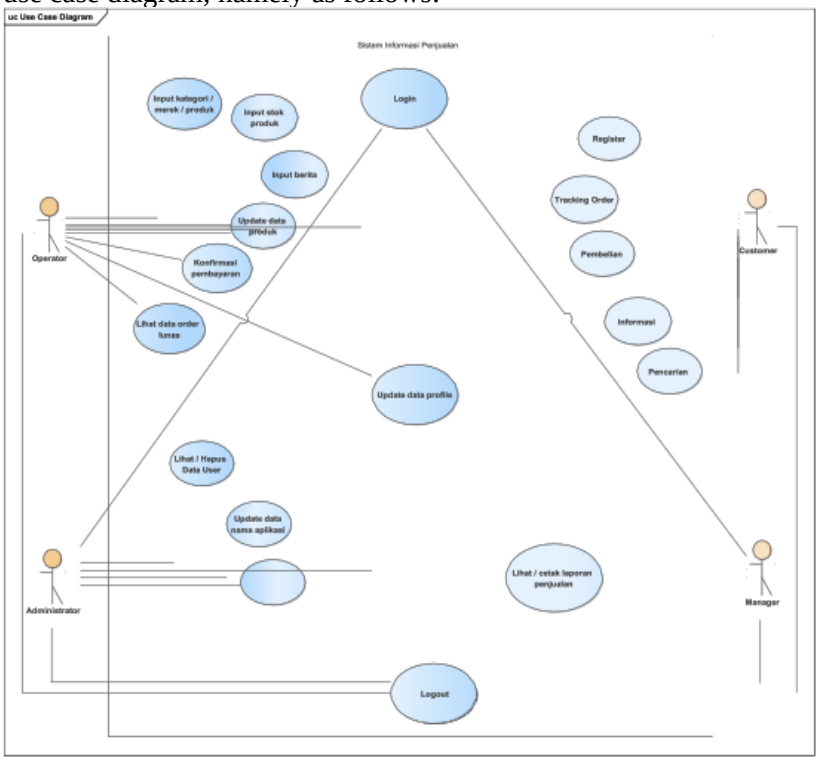

Figure 3. Proposed Use Case Diagram

Use cases work by describing the type of interaction between the user of a system and the system itself through a story about how a system is used. Use Case Diagrams are often used to document and explain processes that take place in a system. In simple terms, use case diagrams are used to understand what functions are in the system and who can understand these functions. Use case is a technique for capturing the functional requirements of a new or changed system. Each use case consists of one or more scenarios that explain how the system interacts with users or other systems to achieve a specific business goal.

Use Case Scenarios

There is a login use case scenario display for the actors, which is as follows:

Table 1. Use Case Scenario Login

Identification	
No	UD02
Use Case Name	Login
Objective	Enter the system and can access the system
Actor	Operator, Administrator, Customer & Manager
Description	This Use Case Describes the Login Process

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Table 1. Use Case Scenario Login

Main Scenario	
Initial Conditions	Operators, Administrators, Customers & Managers Open the Program Then Go to the Login menu
Actor Action	System Reaction
Enter Username and Password	Checking Username and Password
	Displays menus according to each level
Final Condition	Operators, Administrators, Customers & Managers can access the program

Activity Diagram

Activity diagrams provide a view of the behavior of a system by describing the sequence of actions in a process. It is similar to a flowchart because it shows the flow between actions in an activity. However, this diagram can also show parallel or concurrent flows and alternative flows. Activities are container elements that describe the highest level of behavior in an activity diagram. An activity contains several activity nodes and activity edges that represent the sequence of tasks in the workflow that generates the behavior.actions In UML, an action represents a separate unit of function within an activity. A control node is an abstract activity node that coordinates the flow of control within an activity. Object nodes are abstract activities that help define the flow of objects in an activity. The object node indicates that an instance of the classifier may be available at a particular point in the activity.Activity edges are directional connections between two activity nodes/nodes. When a particular action in an activity is completed, the activity edge will continue the flow to the next action in the sequence.

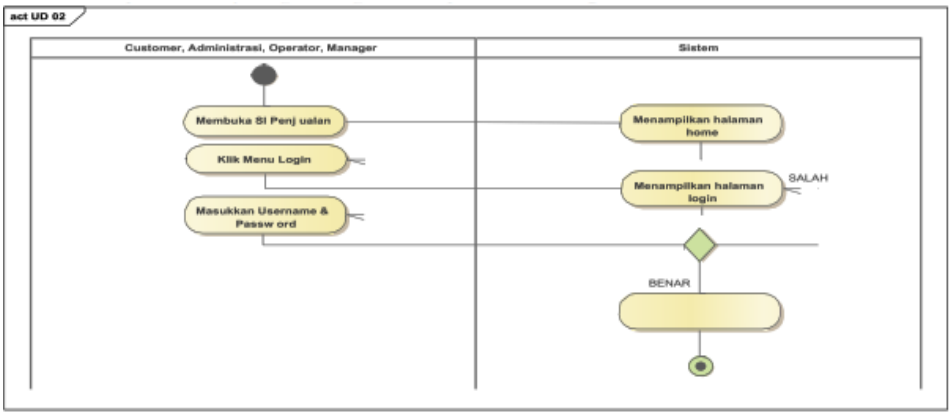

Figure 4. Login Activity Diagram

Sequence Diagrams

Sequence diagrams are the most important UML diagrams because they describe the sequence of messages and interactions that occur between actors and objects. An actor or object can only be active when necessary or when another object wants to communicate with it. A sequence diagram is one that explains how an operation is carried out, what messages are sent and when it is carried out. This chart is organized by time. A sequence diagram is one that explains how an operation is carried out, what messages are sent and when it is carried out. This chart is organized by time. Objects related to the operation process are ordered from left to right based on the time they occur in the ordered message. Sequence diagrams display interactions between objects in two dimensions. The vertical dimension is the axis of time, where time flows downwards. Meanwhile, horizontal dimes represent individual objects. Each object, including the actor, has an active time which is represented by a vertical column called the lifeline. Messages are represented as arrows from one lifeline to another. Messages are depicted as arrowed lines from one object to another. In the next design phase, messages will be mapped into operations/methods from the class. This

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sequence diagram is usually used to describe a scenario or series of steps carried out in response to an event to produce a certain output, and what changes occur internally and what output is produced. Sequence diagrams describe how entities in a system interact, including the messages used during interaction. All messages are described in order of execution. Sequence diagrams are closely related to use case diagrams, where 1 use case will become 1 sequence diagram.

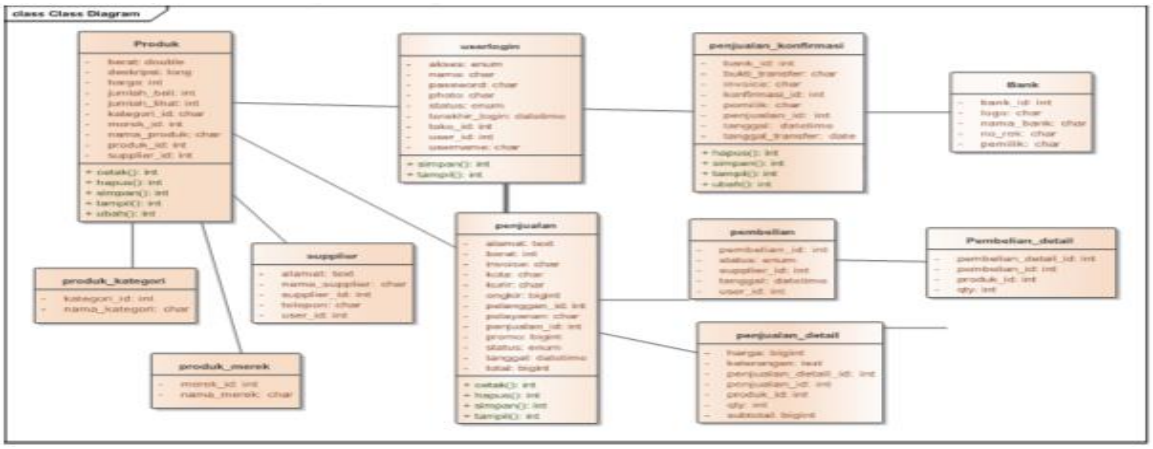

Figure 5. Login Sequence Diagram

Class Diagrams

Types of diagrams in programming. It is object-oriented which is used to represent the structure and relationships between classes in a system. This diagram shows the classes in the system along with their attributes and methods. This model represents relationships between classes such as inheritance and associations. The role of class diagrams is very helpful to programmers and development teams in many ways. The process of designing, understanding and developing systems can be done more easily and efficiently. Mistakes made during work will also be minimized. That way the quality of the system can be developed better. Programmers are better able to produce the best applications and systems in a more structured manner through the application of class diagrams.

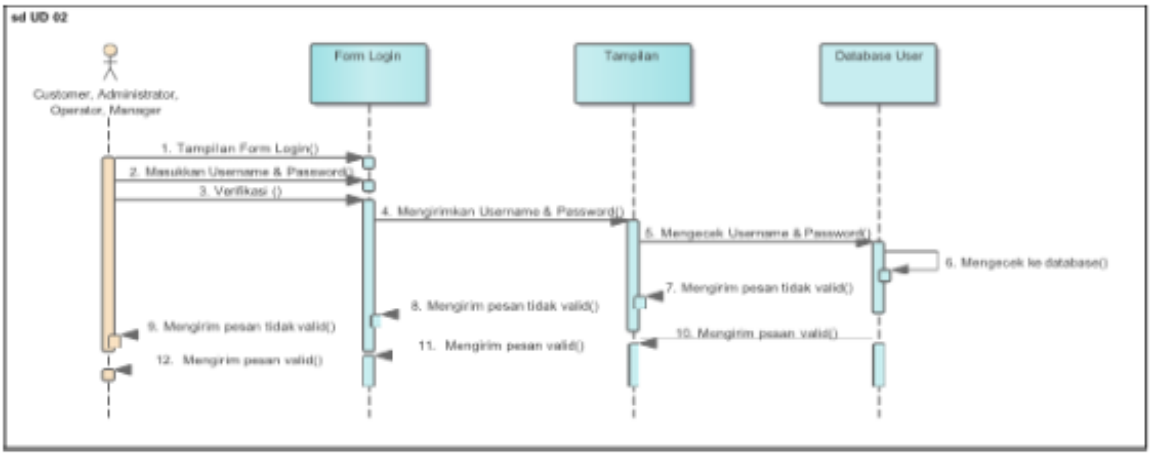

Figure 6. Class Diagram

Implementation

The following is the design of a web-based sales information system. There are several home pages for each actor that look like the following:

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Login Page

Is the first page accessed to enter the Ready-to-Use Dashboard page for application authentication and authorization. The image above shows the login page with the following information: Application logo.

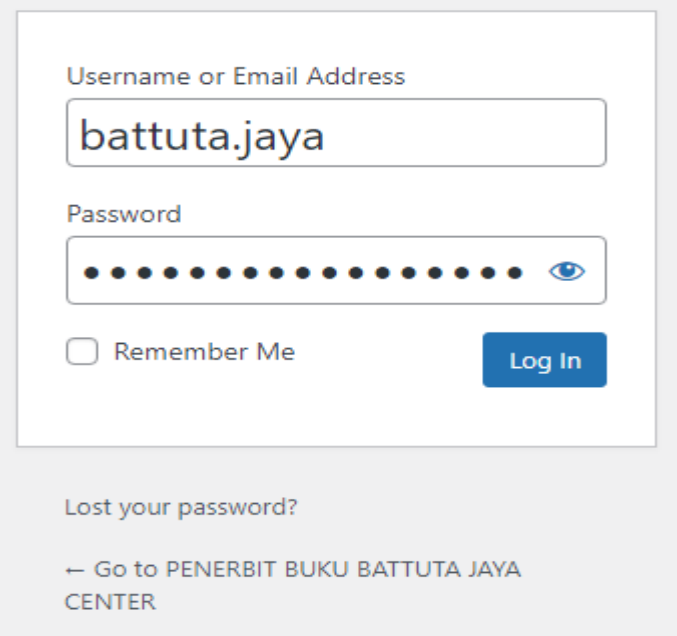

Figure 7. Login Page

Customer Home Page

The first welcome page seen when someone successfully accesses the system. This page can be accessed by customers who want to report their complaints. This page is where a customer can submit his complaint.

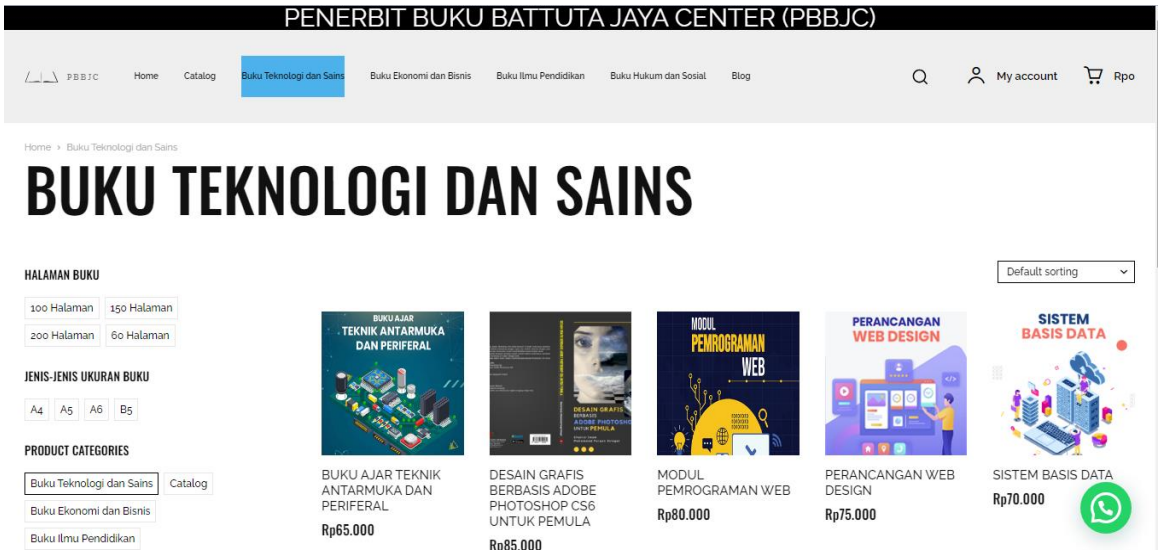

Figure 8. Customer Home Page

Dashboard Page

The main page or start page that displays a summary of important information in widgets. This page can also be used as a shortcut to help you navigate to the processes currently running.

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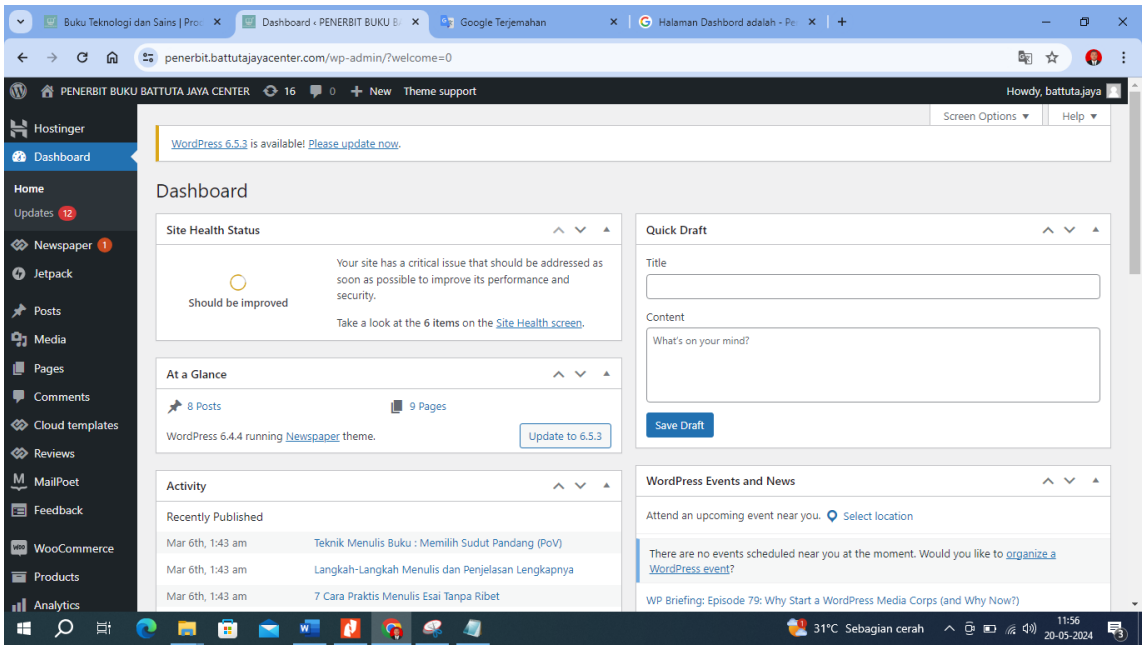

Figure 9. Dashboard Page

Post Page

The fastest way to communicate with your audience and reach potential customers. You can maximize your Page when your viewers see that you're active, and posts are a free way to do that. Anyone who visits your Page will see your most recent and meaningful posts.

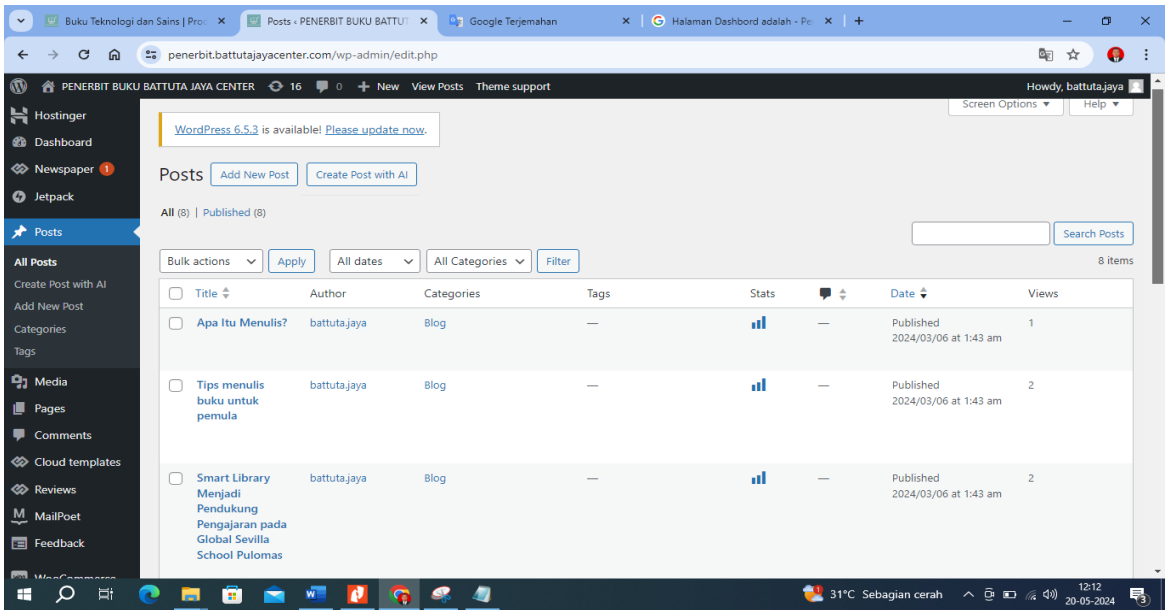

Figure 10. Post Page

CONCLUSIONS

From the results of the discussion of the web-based sales information system at the Battuta Jaya Center (PBBJC) Book Publisher, we can The following conclusion can be drawn. This web-based sales information system can be used sales media by Battuta Jaya Center (PBBJC) Book Publishers and this web-based sales information system can stores data and processes sales at the Battuta Jaya Center (PBBJC) Book Publisher, apart from that it can also report sales results without

needing to calculate with Microsoft Excel. To overcome problems and achieve better things in the future, suggestions as follows: The following payment process will still use manual transfer via bank, in the future It is hoped that the payment can be automatically verified and requires application development Android-based so that consumers can more easily make purchasing transactions online.

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