

IMPLEMENTATION OF THE BEST EMPLOYEES SELECTION IN WANAPOTENSI GUNA (WPG) COMPANIES USING TOPSIS METHOD BASED ON WEBSITE

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ABSTRACT-The number of employees at PT. Wanapotensi Guna will make it difficult for companies to find the best employees, the aim is to improve employee performance to be better every year, the best employee selection is held. The problem that occurs in the process of selecting the best employees so far is that data processing is still manual so it takes a long time. Based on the problems above, the researcher provides a solution to make a decision support system for selecting the best employees using the Topsis method and the Waterfall development method and the programming language used is PHP. Results with DSS for selecting the best employees at PT. Wanapotensi Guna can also minimize the risk of losing employee data, making selection evaluation criteria. the best employees according to predetermined criteria,

Keywords :*SPK, Best Employee, Topsis, Waterfall .Php.*

1. PRELIMINARY

Increased data innovation in the era of globalization has been faced along with advances in information technology that develops information is very important in a job so all decisions must be based on computerization. PT. Wanapotenti Guna is a company founded in 1997 starting business operations with the main objective of advancing the national economic development sector, especially in the field of oil palm. Every year PT.Wanapotensi Guna holds the best employee selection with the number of representatives that will affect the nature of work in an organization. It focuses on getting the best representatives with excellent work, in a good way so that it will slow down decisions if the system is manual,

For this reason, a decision support system (SPK) is needed that is able to assist a leader of a Wanapotensi Guna company in determining the best employee performance. Decision Support System (DSS) is a further development of the Computerized Management Information System, which is designed in such a way that it is interactive with the user.[1]. This intuitive nature is designed to work with a mix of different parts of the dynamic cycle, such as systems, strategies, scientific methods, as well as administrative experience and bits of knowledge to form a customizable choice structure. In this decision support system using the Technique For Order Preference by Similariy TO Ideal Solution (TOPSIS) method. TOPSIS was first introduced by Yoon and Hwang. Decision-making method with multi-criteria. The principle is that the chosen alternative must have the shortest distance from the positive ideal solution and the farthest distance from the negative ideal solution[2].

The programming language used is PHP. PHP is a script that integrates with HTML and resides on a server (server side HTML embedded scripting). PHP is a script used to create dynamic web pages. Dynamic means that the page to be displayed is created when the page is requested by the client[3].

Create an emotionally supportive network of choices to support PT. Wanapotensi Guna in selecting the best workers is only limited to: (1) The selection of an emotionally supportive network is intended for administrators to handle the application and authority of PT. Potential Uses. (2) Selection of steps and instructions in determining the best representative in the field of collecting sub-sector harvesters, including: (a) Attendance (Finger scan system), (b) productivity results, and (c) cooperation.

The purpose of this research is to build a web-based decision support system with the TOPSIS method that can help the leadership of PT. Wanapotensi Guna to choose the best employees.

2. RESEARCH CONTENT

2.1. Research methods

Using a descriptive qualitative approach where the researchers conducted observations and interviews directly to PT. wanapotensi Guna as well as using a literature study.

1. Direct Observation (Observation)

That is a strategy to collect information by leading a direct survey of the item under study. To obtain correct and convincing information, the creators convey objective facts directly to PT Wanapotensi Guna. For this situation, what the writer does is mention observable facts and record them as exploratory information.

2. Interview

Information gathering is done through Q & An or direct exchange with meetings related to company leaders. For this situation, the creator conducts questions and answers for related meetings or individuals who handle information at PT Wanapotensi Guna.

3. Literature Study

To get information that is hypothetical, the authors collect information through searching materials from the web, diaries and libraries as well as books according to objects related to the research.

4. Documentation

Is a technique used to obtain information and data in the form of books, chronicles, notes, compositions and pictures as reports and data that can support research.

2.2. Waterfall

Waterfall approach is the method that will be used in designing this system. The waterfall method is often called the classic life cycle, which describes a systematic and sequential approach to software development, starting with the specification of user requirements and then continuing through the stages of planning, modeling. (modeling), ending with support for the complete software produced[4]. The steps of the method can be seen in the image below.



Figure 1. Waterfall Model

2.2.1. Requirements Analysis

Researchers have conducted discussions, observations, surveys, interviews, and so on directly at PT. Wanapotensi Guna and there is information obtained such as the number of employees there still doing conduct employee competency assessments carried out by managers/HR directly to determine the best employees. However, with the large number of employees of PT. Wanapotensi Guna, What's more, the rules used in the review, it depends on the organization making a conclusion about who qualifies for the title of best worker.

The framework requirements needed and used in making this framework consist of several functional and non-functional parts.

1. Functional Needs

System functional modeling describes the process or service activities provided by the system based on procedures or business processes that must be carried out by the system to serve user needs.

1. Function to manage employee data
The ability to monitor worker information is used to modify information, modify information, and delete representative information.
2. Function to manage criteria data Ability to handle rule information
3. The function of managing employee value data
To add employee value, change the value, and delete employee value data.
4. TOPSIS calculation processing function
That is to do the calculation process in a TOPSIS method of selecting the best employees.
5. Login function
It is done by the user to access the system.
6. Logout function
It's what the user does to log out of the system
7. TOPSIS result report print function.
Is a function to view and print the results of TOPSIS calculations.

2. Non Functional

Based on functional requirements Given the usefulness of the framework that has been described, it is natural that the planned framework can have the following things:

1. The system framework can be controlled by several internet browser programs, for example, Google Chrome and Mozilla Firefox.
2. The information in the topsis calculation will not be displayed to the company due to its privacy.
3. The admin will provide a username and password to the Manager so that the manager can see the best employee results.
4. The system framework should have options to ensure that information used in the system is protected from unauthorized access.

2.2.2. System and Software Design

In the process of designing this system, an outline will be given of the best Employee Ownership Decision Support System at PT. Wanapotensi Guna (Unified Modeling Language) UML. UML is language visual for modeling and communication about a system with use diagram and texts supporter[5].UML as a system model.

1. Use case diagrams *use case*This diagram illustrates the users who will use this application system. Below is a use case diagram of the decision support system for selecting the best employees at PT. Wanapotensi Guna.

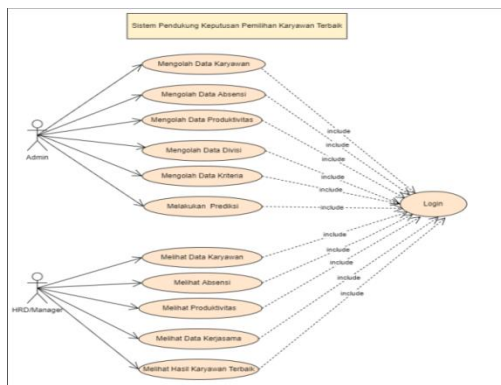


Figure 2. Usecase Diagram

2. Activity Diagrams

An activity diagram shows a system in the form of a set of actions. When used in software modeling. The following is an activity diagram in the decision support system for selecting the best employees at PT. Wanapotensi Guna.

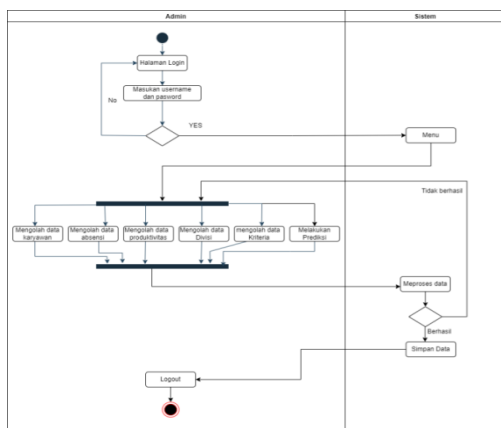


Figure 3. Activity Diagram Admin

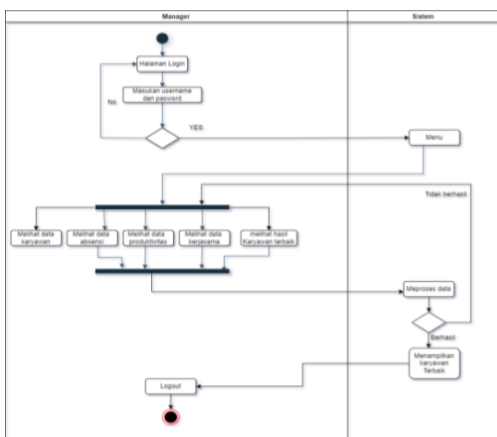


Figure 4. Activity Diagram Manager

3. Class Diagrams

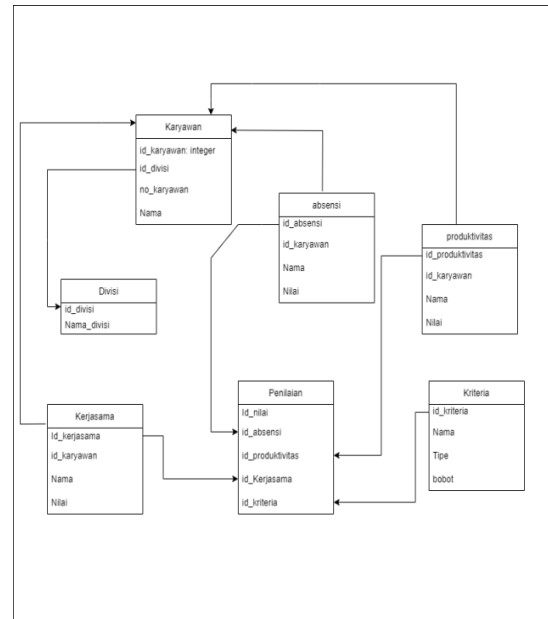


Figure 5. Class Diagram

4. Interface Design

After analyzing what do you want to make in development application system Decision support system for selecting the best employees using the topsis method At PT Wapotensi Guna, researchers have made application designs to be made, in the following picture.

1. Login Page Interface



Figure 6. Login Page Display

2. Admin Dashboard Design Interface

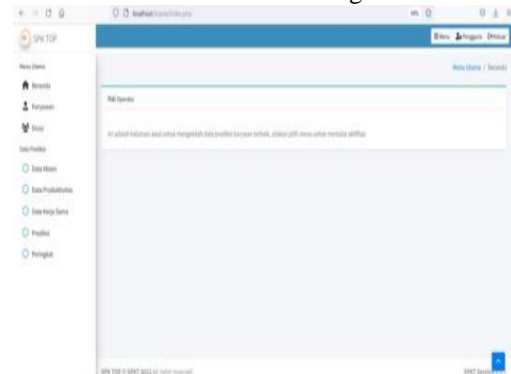


Figure 7. Admin Dashboard Page

3. Design Interface for Processing Employee Data

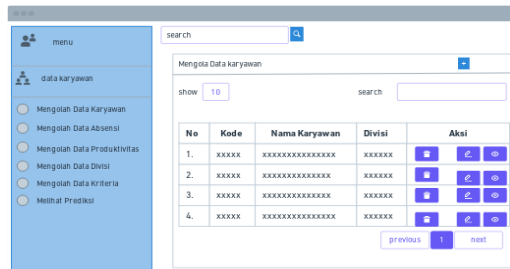


Figure 8. Page Display Processing Employee Data

4. Prediction Page Design Interface

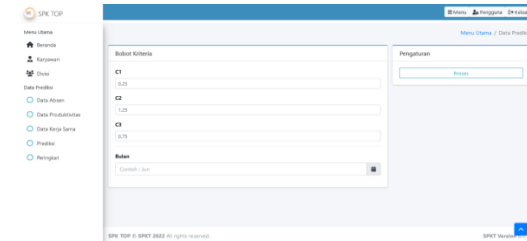
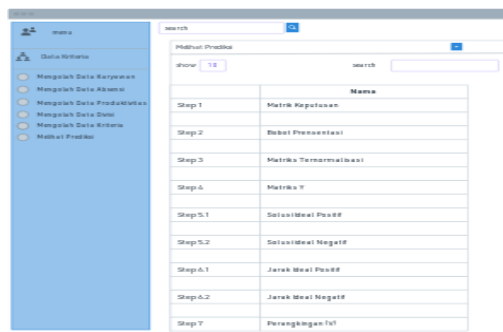


Figure 9. Prediction page



5. Employee Data Page Design Interface
 Figure 10. Employee Data Page

2.2.3. Implementation Unit Testing

The system will be tested by implementing the framework unit to be assembled. By looking at these unit tests, the analyst assesses the framework, particularly the modules and capabilities contained in the structure, are there still blunders and bugs in the programming language that can make the system not run. which can cause the system to fail.

2.2.4. Integration and System Testing

After implementing or implementing the following application stages, want to be made, then will carry out a system testing plan using blackbox. At this stage the aim is to test the functionality of the best employee selection prediction application to be built.

2.2.5. Operation and Maintenance

This system will later be socialized and provide information in the form of training first, especially to company managers and managers. Socialization and training are of course carried out by running the system and directly practicing the use

of the system together. Then the framework will be run with the transformation strategy used is equal change which is a framework change procedure, where the old framework runs and the new framework works together within a certain period of time. Complete framework support with the aim of keeping the framework working as per client's assumptions and if there are bugs and errors in framework capabilities, items and components will be fixed. Further support is to make all or part of the components, works and items, or develop frameworks demonstrated by client needs and data innovation enhancement. The third maintenance is equipment and programming

Programming that upholds the framework and support must be done relentlessly to keep the framework running well.

3. Results and Discussion

3.1.1. System Implementation

From the analysis and design stages, the design results obtained in the form of application system development. Decision support systems for selecting the best employees using the topsis method at PT Wapotensi Guna.

1. Login Form

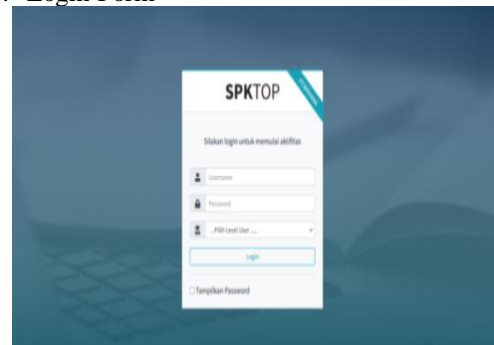
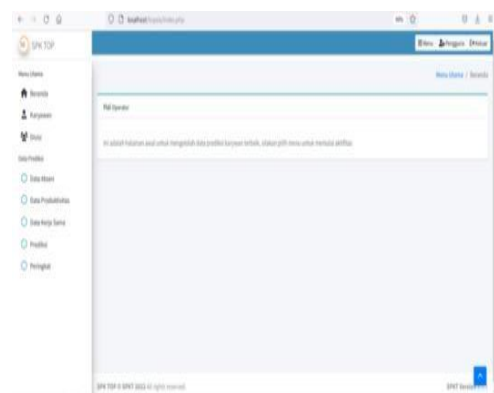


Figure 11. Login Form

2. Admin Dashboard Page

Figure 12. Admin Page



3. Manage Employee Data Page

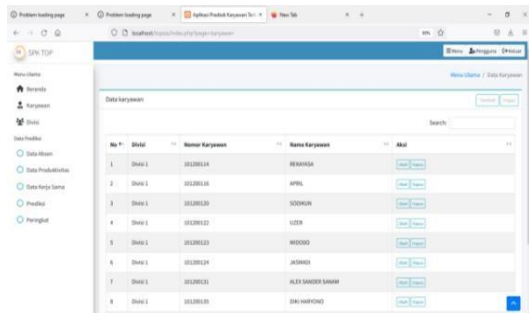


Figure 13. Employee Page

4. Prediction Page

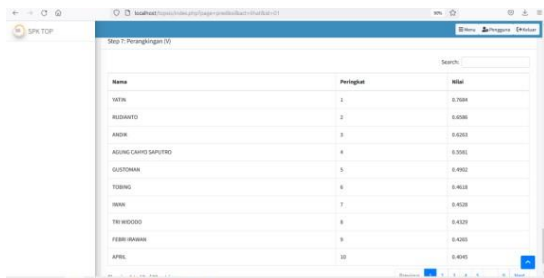


Figure 14. Prediction page

5. Best Employee Page

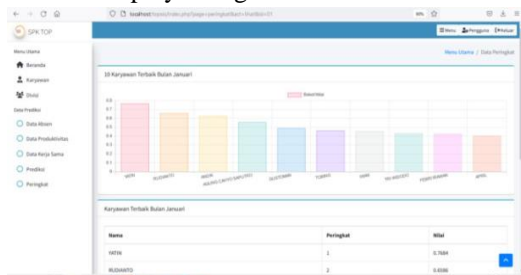


Figure 15. Employee Page

3.1.2. System Test

System testing is a testing phase that is carried out on each part of the application made.

Table 2. System Test

No	Test Case	Output	Results
1.	Operate application by entering application url.	display login	Succeed
2.	show current home dashboard menu user is logged in	display page home dashboard.	Succeed
3.	Run employee menu	Succeed Showingpage	Succeed
4.	Add employee data and save additional employee data	display the input form add data and keepemployee data.	Succeed

- | | | | |
|----|--|---|---------|
| 5. | Edit employee data and save edit employee data by pressing the action button edit. | display the edit data form and save the edited employee data | Succeed |
| 6. | Delete worker information with pressing the delete button | Actually display the message warning and delete data. | Succeed |
| 7. | Operate employee prediction menu and make predictions | display the prediction calculation page and succeed make predictions. | Succeed |
| 8. | Run the employee menu and print the best employees. | display the employee page and print successfully report. | Succeed |
| 9. | Select the logout button | Show login button | Succeed |

4. CONCLUSION

Conclusion from this research:

Based on the results of the research and discussion, it was concluded that this research resulted in the Topsis Method being not difficult to use to determine the best representative because this strategy was very easy. The results of determining the best employees can be applied to the company. Topsis is a more dynamic calculation method between the criteria values entered by the admin and the values can be changed according to user needs. Building a system can of course reduce errors and can minimize errors in determining the selection of the best employees.

This research suggests improving other programming languages and other development methods. There should be additional models in the process of determining the best, overall, the more measures, the better the evaluation. It's great for contrasting different techniques by getting better options by combining other methods.

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