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## **WEB-BASED EMPLOYEE PERFORMANCE ASSESSMENT SYSTEM IN PT.WIFIKU INDONESIA**

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### **ABSTRACT**

AHP is able to help the employee selection process recipient an incentive to perform matrix calculations pairs criteria weights, then get the highest priority. Based on the highest priority, determined which alternative will be recommended. The purpose of this research is to make performance appraisal which can facilitate quickly assess performance. Steps for assessing employee performance such that designing concepts, data collection, comparison of hardware and software, display design, system manufacturing, testing and evaluation. Based on the research that has been done it is concluded that the media system is web-based employee performance appraisal at PT. Wifiku Indonesia has successfully created.

**Keywords:** *System assessment, AHP, Employee Performance*

### **1. INTRODUCTION**

PT. Wifiku Indonesia as a business entity, which is engaged in ISP, always has a competitive advantage, especially in dealing with global markets, guided to be able to anticipate changes that are so fast and dynamic in order to survive and can improve the efficiency and effectiveness of the company's operations. Increased efficiency and effectiveness of the company can achieve through the utilization of human resources (HR) because HR is the most important factor in this regard. In other words HR as an employee in a company is a source of competitive advantage for a company so that it is expected to be optimal for the company (Mathis & Jackson, (2002).

In the current era of globalization, the situation and conditions of ISP service competition between companies are getting tougher, be it competition between local companies or between foreign companies. To deal with this kind of situation it is necessary to thoroughly innovate the company PT. Indonesian Wifiku in order to provide the best results for service users. One way to improve organizational development is to evaluate performance.

The number of criteria (multiple criteria) used in the employee performance appraisal process makes it difficult for management to give weight to each criterion because it requires an appropriate method, as for the method used to resolve multiple criteria at PT. Indonesian Wifiku using Analytical Hierarchy Process (AHP). In addition to multi-criteria, the management also wants a system that is able to overcome the problem when there is a change in the number and names of criteria (Wahyuni & Irawan, 2019).

Based on his explanation above, the writer is interested in conducting a study entitled Web-Based Performance Assessment System at PT. Wifiku Indonesia and is expected to know the potential of every employee in the company as a barometer in the effectiveness and work ethic performance. So they can know the achievements that have been achieved by these employees. And if the results of the selection are known the results are in accordance with the wishes of the company, the employee will be placed in a better position.

### **2. LITERATURE REVIEW**

According to Fitriana (2008) which discusses the decision support system using the AHP method (Analytic Hierarchy Process) in the case of a project tender winner where each criterion is a factor judgments and alternatives are compared with each other so as to produce a system that provides evaluation of each project tender participant.

According to Purnavita (2005) in his research discussing about the determination of the quality of sugar using the method sulfitation. Determination of quality based on color, sugar content, and moisture content. Making sugar with spice sugar using the sulfitation method can

improve the quality of spice sugar and meet SNI in terms of color, content water and sugar content.

In other studies Dyah (2009) decision support systems for strategic planning performance of government agencies using the AHP method. In this study the problems faced in implementing or helping determination of planning is still done manually by the leader so that it impedes the performance of the agency in determining strategic planning decisions. Assessment criteria are based on internal and external factors relating to the agency's vision, mission and goals.

### 3. RESEARCH METHOD

The methodology for system development is a standard process used to link all the steps needed to analyze, design, implement and maintain information systems (Susanto, 2004). The methods used in this study are as follows:

#### a. Method of Library Research

In this method the author studies several employee performance appraisal books. The author also studies several journals that are already ISSN.

#### b. Field Research

This research by looking directly at the location or place of research, this research was conducted by interview or interview with the leaders and employees of PT. Indonesian Wifiku, which this research aims to describe or explain something that happens in an activity carried out.

#### c. Systems Development Method

In its development, this application refers to the model of the process of developing the System Development Life Cycle (SDLC) (Purwati, et. al., 2020).

#### d. Laboratory Method

As a place to create an employee performance appraisal system and a place to process data collected during the study.

#### SDLC method

System Development Life Cycle (SDLC) is a system development cycle consisting of Project Identification and Selection, Project Initiation and Planning, Analysis, Logical Design, Physical Design, Implementation, and Maintenance (Jogiyanto, 2005). The seven steps can be seen diagrammatically as shown below:

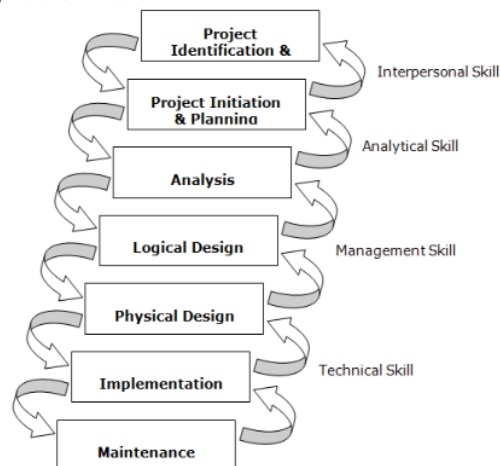


Figure 1. SDLC Method

The stages of the System Development Life Cycle (SDLC) map the basic development activities, namely:

a) Identification and Selection (Project Identification and Selection)

The needs of the entire employee performance appraisal system at PT. The Indonesian Wifiku is identified, analyzed, regulated and scheduled. After that, only the part that will be made will be assessed. The respondents in this identification stage were the employees and leaders of PT. Indonesian Wifiku. Data and information are collected through observations, interviews and from existing documents and reports. From the results of the identification found several limitations on the employee performance appraisal system at PT. Indonesian Wi-Fi as described in the previous section, which is an evaluation of inefficient performance.

b) Initialisation and Planning (Project Initiation and Planning)

After being selected, the planning for the part that will be applied to the design of the new information system or the improvement of the old system will continue. From these problems, it is necessary to make an employee performance appraisal system at PT. Wifiku Indonesia employee performance appraisal system at PT. Indonesian Wifiku. The new system is planned to improve employee performance appraisal

c) Analysis or Analysis (Analysis)

The author analyzes the system that is being used in the employee performance appraisal system at PT. Indonesian Wifiku, then amended and refined to a more efficient system. In this cycle there are three stages:

Requirement Determination, employees and leaders are included in determining needs, the authors also study the manual system that is applied to PT. Indonesia's current wifif, both in terms of data processing and distribution of data and reports.

Requirement Structuring, at this stage the researcher makes a flow diagram of the old assessment system from the data and information that has been obtained from PT. Indonesian Wifiku. From the results of the analysis, a new information system flow and a new context diagram are made. Here the system components are determined to be made computerized. After that, use case diagrams and class diagrams are made to determine the data flow that will be processed by the new information system.

Alternative Generation and Selection Design, the authors make alternative designs in accordance with the wishes of employees of PT. Indonesian Wifiku to be compared and selected according to the existing costs, human and technical resources.

d) Logical Design

After the existing system is analyzed and is in accordance with the needs of the employees of PT. Wifiku Indonesia, the logic design was made using Flow charts as a tool to build employee performance appraisal systems at PT. Indonesian Wifiku.

e) Physical Design

At this stage the developer designs a form of data input forms such as attendance data, crafts, loyalty, etc. as well as user friendly reports such as assessment reports, employee data reports, will be generated by the new system. Here the author uses the PHP programming language and MySql as data storage media.

f) Implementation

Employee performance appraisal system at PT. Indonesian Wifiku. Documentation, training and assistance given to employees. Here PT. Wifiku Indonesia will try to use a system that has been created or installed. During the experiment will be supervised by the system maker or programmer. Research carried out is still not through this stage.

g) Maintenance

The information system that has been installed on PT. Wifiku Indonesia needed maintenance and renewal according to the needs of PT. Wifiku Indonesia over time.

#### 4. RESEARCH RESULTS AND DISCUSSION

This chapter will explain the SLDC method of implementing employee performance appraisal systems at PT. The Indonesian Wika starts from the installation stage until it is finished. In this implementation chapter will display the pages contained in the employee performance appraisal system that has been designed and created as described in the previous chapter.

##### Main Page

The main page display is the initial display when the performance appraisal system is opened. This main display includes the login page and the page that contains images representing PT. Indonesian Wifiku. This login page has two (2) levels, namely the assessor and admin levels.

##### Information page

This information page contains about PT. Wifiku Indonesia Brief in brief. Explain the History, Vision and Mission of PT. Indonesian Wifiku. To view the information page, you don't need to login.



Figure 2. Information Page

##### Input Page

Input page is the page that contains the input required to select incentive recipient employees. Forms input in this application are user input pages, branch input pages, criteria input pages, and employee input pages.

##### User Input

The user input page consists of several fields, i.e. user id, username, password, and level. If the input process has been carried out then press the save button to save and the cancel button to cancel the save process.



Figure 3. User Page

**User Data Page**



Figure 4. Display User Data Page

Figure 4 is a display of user data, which displays the user id, username, password, level, add button to add users.

**Branch Program Input**

The branch input page consists of one table that contains branch code fields, branch name fields, address fields, and field data. The input process is carried out by the admin and when the data is saved, click the save button and click the cancel button to cancel the input process.



Figure 5. Branch Program Input Page

**Branch Page Display**



Figure 6. Branch Data Page

Figure 6 is a branch data display, which displays branch code, branch name, branch address and quota. add button to add branch data.

### Input Criteria

The criteria input page is the page used to input criteria. In the input table of this criterion there is a weight code field and a weight name field. Click save to save the data that has been inputted and click cancel to cancel the save process.

Figure 7. Input Criteria

### Criteria Data Page Display

| Kode Bobot | Nama Bobot   |
|------------|--------------|
| 1          | Berjasama    |
| 2          | Kepuasan     |
| 3          | Kejujuran    |
| 4          | Kedisiplinan |
| 5          | Kemampuan    |

Figure 8. Criteria Data Page

Figure 8 is a display of criteria data, which displays the weight code and weight name. add button to add criteria data.

### Employee input

Employee input pages include many fields, namely employee id fields, nik fields, name fields, address fields, date of birth fields, birth fields, branch fields, gender fields, telephone fields, email fields, Discipline fields, Honesty fields, Personality fields, Crafts field. Click the save button to save, and click the cancel button to cancel the save process.

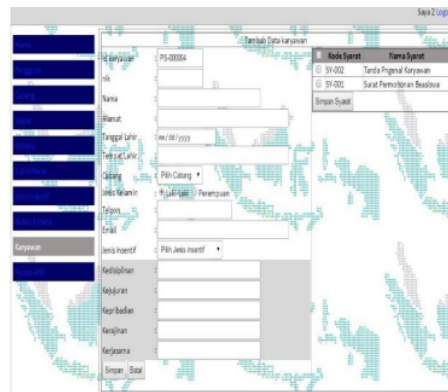


Figure 9. Employee Data Input Page

**Employee Data Page Display**



Figure 10. Employee Data Page

Figure. 10 is a display of employee data, which displays employee ID, employee name, gender, telephone and employee address. Add button to add employee data.

**Input Sub Criteria**

Input pages are pages that contain the input required for comparison between criteria. The input form in this application is the comparison page of the lowest value sub-criteria and the highest value.

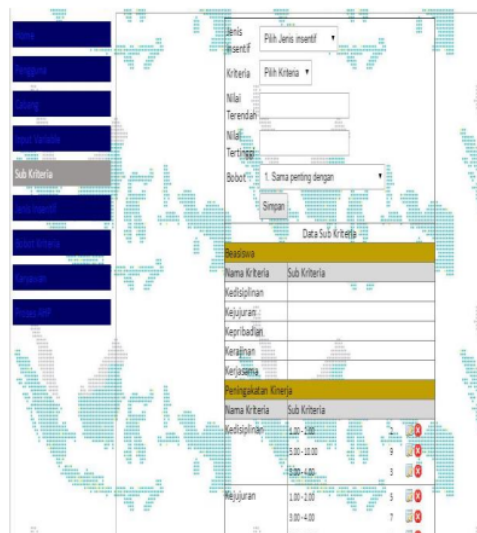


Figure 11. Data Input Sub-Criteria Page

**Display of Sub-Criteria Data Page**



| Data Sub Kriteria         |              |   |
|---------------------------|--------------|---|
| Nama Kriteria             | Sub Kriteria |   |
| <b>Kelembagaan</b>        |              |   |
| Kelembagaan               |              |   |
| Kelembagaan               |              |   |
| Kelembagaan               |              |   |
| Kelembagaan               |              |   |
| Kelembagaan               |              |   |
| Kelembagaan               |              |   |
| Kelembagaan               |              |   |
| <b>Peringkat Kriteria</b> |              |   |
| Nama Kriteria             | Sub Kriteria |   |
| Kelembagaan               | 100-180      | 5 |
|                           | 100-1000     | 1 |
|                           | 100-100      | 3 |
| Kelembagaan               | 100-200      | 5 |
|                           | 100-400      | 7 |
|                           | 500-1000     | 1 |
| Kelembagaan               | 100-400      | 7 |
| Kelembagaan               | 100-400      | 1 |
| Kelembagaan               | 100-400      | 2 |

Figure 12. Sub-criteria Data Page

Figure 12 is a comparison display of the lowest value and highest value criteria.

**Input Incentive Types**

Performance Improvement is given to employees who apply for college scholarships with predetermined conditions. Performance improvement is given to employees who have performance achievements. Input types of incentives consist of two fields, namely; incentive code type field and incentive type name.

Figure 13. Incentive Data Input Page

**Incentives Data Page Views**

| Kode Jenis Incentif | Nama Jenis Incentif |
|---------------------|---------------------|
| 3                   | Peringkat Kinerja   |

Figure 14. Incentive Type Data Page

Figure 14. is an incentive type data display, which displays the code for incentive types and incentive types. plus button to add to the type of incentive.

### AHP Results Page

AHP results page is the result page of AHP calculation process in the Employee Performance Assessment system at PT. Indonesian Wifiku.

### Manual Process Page

A manual process page is a page that displays the entire manual process of looking for consistency from existing criteria. This manual process is guided by the AHP procedure, where the consistency calculation starts from the multiplication of the paired matrices of each criterion. The calculation ends until the employee can be recommended to receive incentives.

|              | Kejujuran | Kepribadian | Kerjasama | Kedisiplinan | Kemampuan |
|--------------|-----------|-------------|-----------|--------------|-----------|
| Kejujuran    | 1         |             |           |              |           |
| Kepribadian  | 1/2       | 1           |           |              |           |
| Kerjasama    | 1/3       | 1/2         | 1         |              |           |
| Kedisiplinan | 1/4       | 1/3         | 1/2       | 1            |           |
| Kemampuan    | 1/5       | 1/4         | 1/3       | 1/2          | 1         |
| Total        | 1         | 1           | 1         | 1            | 1         |

|      | Kejujuran | Kepribadian | Kerjasama | Kedisiplinan | Kemampuan | Prioritas | Q |
|------|-----------|-------------|-----------|--------------|-----------|-----------|---|
| Q    | 0         | 0           | 0         | 0            | 0         | 0,2       | 1 |
| D    | 0         | 0           | 1         | 0            | 0         | 0,2       | 1 |
| D    | 0         | 0           | 0         | 1            | 0         | 0,2       | 1 |
| D    | 0         | 0           | 0         | 0            | 1         | 0,2       | 1 |
| D    | 0         | 0           | 0         | 0            | 0         | 0,2       | 1 |
| Q    | 0         | 0           | 0         | 0            | 0         | 0,2       | 1 |
| Ward | 1,24      |             |           |              |           |           |   |
| Q    | 0         |             |           |              |           |           |   |

| Nama     | Kerjasama | Kepribadian | Kejujuran | Kedisiplinan | Kemampuan |
|----------|-----------|-------------|-----------|--------------|-----------|
| Shafiqul | 0         | 0           | 1         | 0            | 0         |

Figure 15. AHP Process Page

### Process Results Page

Process results page is a page that displays the results of the ahp process without displaying the manual process. This page makes it easy for evaluators to see students who have the highest final grade. Based on these grades, it is recommended that several students are in accordance with the existing requirements.

| No Karyawan | Nk   | Nama     | Kejujuran | Kepribadian | Kerjasama | Kedisiplinan | Kemampuan | Nilai Akhir |
|-------------|------|----------|-----------|-------------|-----------|--------------|-----------|-------------|
| PS-00000    | 0234 | Shafiqul | 5         | 5           | 5         | 5            | 5         | 1,000       |

Figure 16. Final Results Page

## 6 CONCLUSIONS

Based on the results of the analysis and discussion as well as the description of the previous chapters, it can be concluded:

1. AHP method is able to help the process of selecting incentive recipient employees by calculating the pairwise matrix of criteria weights, then getting the highest priority. Based on these highest priorities, determined which alternatives will be recommended.
2. The application of the AHP method in the performance appraisal system is adjusted to the problem at PT. Wifiku Indonesia, namely selection with incentive recipients.
3. Employee performance appraisal system is built using based on system requirements, and is designed to facilitate the selection process. The application was built using PHP syntax.

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