

Decision Support System for New Employee Recruitment in PT. Prosweal Indomax using the Simple Additive Weighting (SAW) Method

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Abstract—The eligibility for hiring new employees based on certain criteria that the company expects is something that is very rarely obtained. The acceptance process may result in inaccurate and productive decisions due to inefficient admission processes. There are several criteria in making decisions about the recruitment of new employees at PT. Prosweal Indomax, which is based on latest education, expertise, age and work experience. Purpose made This system is able to help make decisions to determine the optimal recruitment process using the method *Simple Additive Weighting* (SAW). This method was chosen because this method determines the weight value for each attribute, then is followed by a ranking process that will select the best alternative. The research was conducted by finding the weighted value for each criterion, and then creating a ranking process that would determine which alternative was the best applicant.

Keywords— Decision Support System, *Simple Additive Weighting*, recruitment of employees

INTRODUCTION

Human Resources (HR) is very important in a company in achieving its goals. One of the activities in human resources is employee recruitment, which is a strategic stage to identify the right candidate for employees. In a broader sense from an employment perspective, the need for employees both in terms of quantity and quality is a top priority to support the company in responding to the various problems and challenges it faces. Therefore, the company definitely needs a workforce who has the quality and ability to match the qualifications in the company. Human resources must be managed properly to increase the effectiveness and efficiency of the organization as a function within the company. [1] PT. Prosweal Indomax is a company engaged in the field of Food and Beverages (F&B) or traditional food and medicine. It is a branch of PT Novell Pharmaceutical Laboratories located in Gunung Putri. PT. Prosweal Indomax was established in 2020. Therefore, it still requires a lot of human resources, PT. Prosweal does not want any failure in the process of accepting human resources, therefore objectivity is very necessary to be able to support any decisions in order to get good human resources for a long period of time. The registration process and selection of prospective employees at PT. Currently, Indomax prosweal is still done manually so that prospective employees who wish to register must come directly to the company. The number of aspects or criteria established by the selection of prospective employees makes calculating their value more difficult. Seeing this, it is necessary to have a decision support system in the form of recruitment data processing optimally computerized employees to be more effective and efficient. [2] The use of information systems in employee recruitment is online employee recruitment or also known as employee recruitment information systems. System analysis is carried out to identify and evaluate problems that occur in business organizations whose analysis results will be used to design a new system, while system design is carried out to describe a new system that is useful for solving system problems.

LITERATURE REVIEW

Research conducted by Rohmat Taufiq, Angga Aditya Permana, Tedi Cahyanto and Rizki Adha, 2018 *Simple Additive Weighting* Case Study PT. Trafoindo Prima Perkasa ". There are 4 criteria used in this study, namely (1) Test results (2) Age (3) Work experience and (4) Recent education. The final result of this research is to apply a SAW method to a data sample (PT. Trafoindo Prima Perkasa) in the process of hiring employees, according to predetermined criteria, the final result is the employee who has the highest ranking value. This research was conducted by Hasni Djainan and Herlinda De Christin, 2015 "Decision Support System for New Employee Admissions of PT. PIn (Persero) Head Office Using *Simple Additive Weighting* (Saw) ". There are 5 criteria used in this study, namely, (1) GPA (2) competency test (3) psychological test (4) ability test and (5) Interview. The result of this decision support system is the selection of the best alternative applicants who are entitled to be accepted as employees because they have passed the selection sequentially according to rank. This research was conducted by Ni Made Asiti and Ni Luh Ratniasih, 2018 "Decision Support System for New Employee Admission with the K-mens Clustering method". The result of this research is the design of an employee acceptance decision support system. With this system, applicants can submit applications online. The system will cluster employees in categories based on predetermined criteria from each work field such as Media Content Development Staff, Cloud Solution Architect, Cloud Service Engineer. The method used in this research is K-Means Clustering. research can build systems decision support to assist users to be able to recruit prospective employees of PT. Cakra Mobilindo is technology based website according to the needs that have been agreed upon between the researcher and the application user and (2) the results of user testing of the system conclude that the application built makes it easier for managers to make decisions on selecting prospective employees and the system can simplify employee registration at PT. Cakra Mobilindo amounting to 100% and helps applicants to carry out the recruitment process for prospective employees of 82.5%.

RESEARCH METHODS

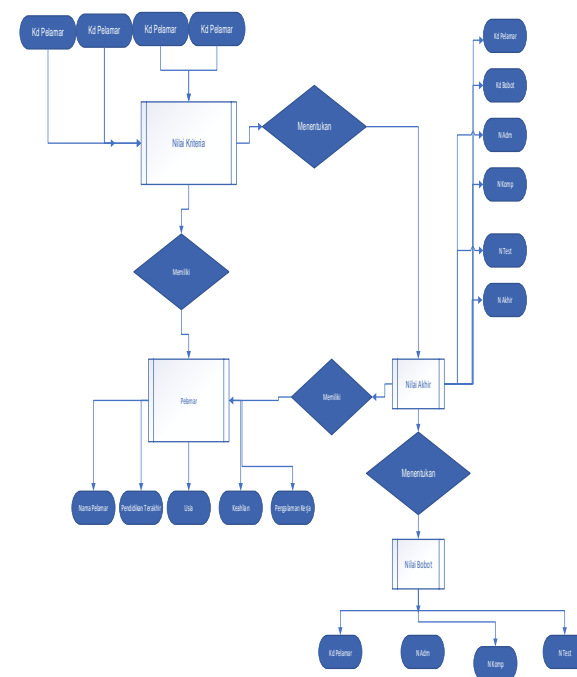
This research consists of several stages, including: analysis and system design, analyzing the need for software functions required, including identification of problems, identify problems faced in making decisions on the recruitment of PT. Prosweal Indomax; problem analysis, after identifying the problem, then an analysis is carried out in order to find a solution.; literary analysis, looking for references to solve problems related to the research to be carried out.; Design, is the design of software that is carried out based on the data that has been collected in the previous stage and is represented in the form of a "blueprint" before coding begins. includes input functions, process functions, and output functions. Algorithm implementation At this stage, it discusses the implementation of the design, namely

The Decision Support System helps make decisions in the recruitment of prospective new employees at PT. Prosweal Indomax based on the results of the analysis according to the specified criteria. The criteria that have been determined in the interview selection stage are the latest education (C1), age (C2), expertise (C3), work experience (C4). The method used for decision support systems is Simple Additive Weighting (SAW). This method was chosen because this method determines the weight value for each attribute, then it is followed by a ranking process that will select the best alternative. The research was conducted by looking for the weight value for each criterion, and making a ranking process that would determine the optimal alternative is the best applicant, and is entitled to be accepted as an employee because he passed the selection in order according to rank

implementing simple additive weighting in determining decisions, designing system applications by writing program code and finally making improvements to the system. System testing and evaluation. This stage is taken to test and evaluate the system in order to find deficiencies in the system. Preparation of

RESULTS AND DISCUSSION

The following is the structure of the process in recruiting employees, starting from filling out the applicant form Each prospective applicant must fill in complete and valid data, then mandatory take the test given by the company as a condition to be able to pass to the company In the selection process, the score of each applicant will be inputted by HRD and the final score will be obtained based on the scores of several tests determined by the company. then the one who gets the highest score can pass into the company.



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No	Nama	Nilai Total	Ranking
1	Andra Rajawali	93	1
2	Pana Salsama	91	2
3	Pattal Apudil	88	3
4	Muhammad	87	4
5	Naura Syahid	82	5
6	Amah Amah	78	6
7	Sing Rahmi	76	7
8	Abdillah Haki	76	8
9	Dadi Sholah	70	9
10	Muhammad Fandi	69	10

above is the final result of the ranking obtained based on the calculation of the input data, according to the criteria and weights.

CONCLUSION