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Integrating Method based on the Removal Effects of Criteria in Multi-Attribute Utility Theory for Employee Admissions Decision Making

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Abstract: Effective employee onboarding is essential for the success of an organization because it can ensure that the company acquires quality human resources that are in line with the needs and culture of the company. Careful employee recruitment based on objective evaluation is key in creating a competent team and supporting the achievement of the company's goals. Problems in employee recruitment often arise due to a lack of an objective and transparent selection process, which can lead to improper selection of candidates. One of the main challenges is the presence of errors in judgment, which reduces the diversity and quality of the team formed. The purpose of the study is to combine the principles of multi-attribute utility theory (MAUT) with method based on the removal effects of criteria (MEREC) to improve the decision-making process in employee recruitment which can improve objectivity, accuracy, and efficiency in the recruitment process, as well as reduce possible errors in the assessment of candidates. The results of the employee acceptance ranking using a combination of MEREC and MAUT were obtained by Clara Wijaya occupying the first position with the highest score of 0.7606, followed by Farah Ramadhani with a score of 0.7525. The third position was filled by Andi Santoso with a score of 0.4874. These ratings provide an overview of each individual's performance or eligibility based on a specific assessment.
Keywords: Decision-making; Employee; MAUT; MEREC;

1. INTRODUCING

Effective employee onboarding is essential for the success of an organization because it can ensure that the company acquires quality human resources that are in line with the needs and culture of the company[1], [2]. The right selection process not only helps in finding candidates who have the right skills and experience, but also ensures that they have the attitude, values, and potential to thrive in a dynamic work environment. By selecting the right employees, companies can increase team productivity, innovation, and performance, as well as reduce turnover rates and training costs. Careful employee recruitment based on objective evaluation is key in creating a competent team and supporting the achievement of the company's goals. Problems in employee recruitment often arise due to a lack of an objective and transparent selection process, which can lead

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to improper selection of candidates. One of the main challenges is the presence of errors in judgment, which reduces the diversity and quality of the team formed. The employee onboarding solution using a decision support system (DSS) is a modern approach designed to improve objectivity, efficiency, and accuracy in the employee selection process. DSS can help companies comprehensively evaluate candidates based on predetermined criteria[3], [4], such as education, work experience, skills, communication skills, and organizational cultural fit.

Multi-Attribute Utility Theory (MAUT) is an approach in decision-making theory that is used to evaluate options or alternatives that have more than one criterion or attribute[5]–[7]. In MAUT, each alternative is assessed based on a number of criteria that are considered important, and each of these criteria is given a weight that reflects its importance to the final decision. The purpose of MAUT is to calculate the total value or utility of each alternative by taking into account the contribution of each criterion. The advantage of MAUT lies in its ability to manage complex decisions by considering many criteria or attributes simultaneously. MAUT allows decision-makers to assess alternatives based on a variety of relevant factors, such as quality, cost, or time, and weights each criterion according to its level of importance[8]–[10]. This helps to reduce subjectivity in decision-making and ensure that any criteria that are considered important are taken into account fairly. By using this method, the decisions taken become more structured, transparent, and consistent, as it involves a systematic analysis of the various aspects that affect the final result. One of the main drawbacks in MAUT is the weighting of criteria which is often subjective and can be influenced by personal preferences or decision-making biases. Improper or inaccurate weighting can result in suboptimal decisions, especially if the criteria that are considered important are not weighted in accordance with their level of importance.

Method based on the Removal Effects of Criteria (MEREC) is an approach used in decision-making, especially in multi-criteria decision-making analysis (MCDA), to evaluate the impact of the removal or elimination of certain criteria in the decision-making process[11]–[13]. This method aims to identify how the elimination of certain criteria affects alternative ranking or overall decision outcomes. By systematically removing individual criteria, decision-makers can observe which criteria have the greatest influence on the final decision and which are less important. The advantage of MEREC lies in its ability to provide deeper insights into the importance of each criterion in the decision-making process[14]–[16]. By evaluating the impact of removing certain criteria, this method allows decision-makers to understand which criteria have the most influence on the final outcome and which can be eliminated without significantly influencing the decision. This method can produce more objective, structured, and robust decisions, and help in designing more efficient and targeted decision models.

Integrating MEREC in MAUT is an approach that combines the impact analysis of the elimination of criteria with the MAUT framework to improve accuracy and efficiency in multi-criteria decision-making. This approach aims to evaluate the relative contribution of each criterion to the final decision by measuring changes in ranking results when certain criteria are removed. With this integration, decision-makers can understand the importance of each criterion and how its removal or weight adjustment affects the total utility of the evaluated alternative. In the context of employee recruitment, this method can be used to evaluate candidates based on various attributes such as experience, skills, education, and cultural fit. By identifying the most relevant criteria and their impact on the selection results, companies can make more effective, efficient, and fair decisions. These integrations offer an innovative way to improve multi-criteria decision-making processes, both at an organizational and individual scale.

The purpose of the study is to combine the principles of multi-attribute utility theory with a criterion-elimination approach to improve the decision-making process in employee

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recruitment which can improve objectivity, accuracy, and efficiency in the recruitment process, as well as reduce possible errors in the assessment of candidates. In addition, this study also aims to propose a model that can be adapted by organizations in optimizing employee admission decisions based on various relevant attributes.

2. METHOD

The research stage is a series of systematic steps designed to guide the process of collecting, analyzing, and interpreting data to answer a research question or achieve a specific goal. This stage ensures that the research is carried out in a structured and valid manner as shown in Figure 1.

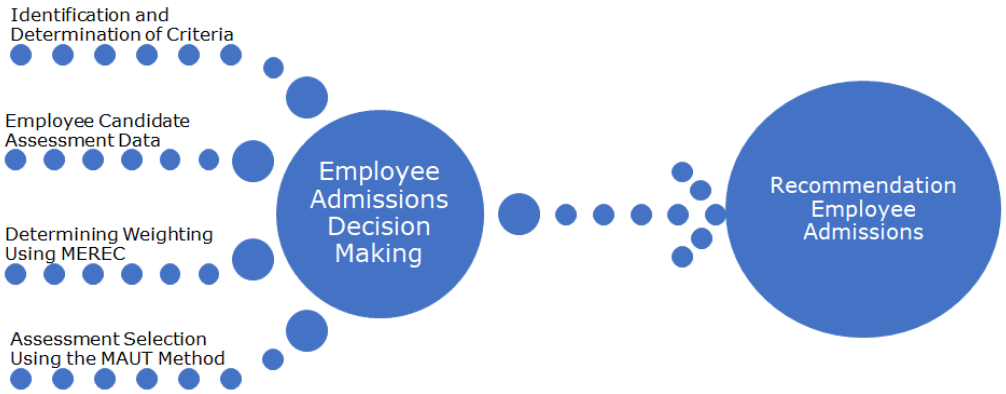

Figure 1. Research Stages

The first stage in this study is Identification and Determination of Criteria, where researchers determine relevant criteria to assess prospective employees, such as technical competence, work experience, communication skills, work ethics, and creativity. This criterion is selected based on the needs of the company and the purpose of selection. After the criteria are determined, the next step is the Collection of Prospective Employee Assessment Data, where information related to the performance or ability of prospective employees is collected, which can be through tests, interviews, or evaluations from previous references. This data is used to measure the extent to which each candidate meets the criteria that have been set. In the Weighting Determination stage using MEREC, the weight of each criterion is calculated using the MEREC method. This method measures the impact of the elimination of each criterion on the evaluation results, so that the weight obtained better reflects the significant influence of each criterion on the final decision. Finally, in the Assessment Selection stage using the MAUT Method, the normalized value of each criterion for each prospective employee is combined with a predetermined weight using the MAUT method. This method makes it possible to calculate the final score for each candidate based on the company's preference for the criteria that have been prepared, resulting in an objective and data-driven decision to select the best prospective employees.

Method based on the Removal Effects of Criteria (MEREC)

MEREC is a multi-criteria decision-making approach used to determine the weight of criteria by measuring the impact or effect of removing one criterion on the overall evaluation results. In the context of selection or selection, this method focuses on how much influence each criterion has on the final decision when the criteria are removed from the evaluation process.

A decision matrix is a tabular representation that describes alternatives that are evaluated based on predetermined criteria. Each row in the matrix represents an

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alternative (e.g., a potential employee or product), while the columns represent evaluation criteria (e.g., skills, experience, price, etc.). The values present in the matrix indicate how well the alternative meets the set criteria.

$$X = \begin{bmatrix} x_{11} & \cdots & x_{m1} \\ \vdots & \ddots & \vdots \\ x_{1n} & \cdots & x_{mn} \end{bmatrix} \quad (1)$$

Normalization is the process of equalizing the value scale of each criterion so that it can be compared fairly. At this stage, the values of each criterion in the decision matrix are converted into values that are in the same range. The goal is so that criteria on a large or small scale do not dominate the final decision.

$$n_{ij} = \begin{cases} \frac{\min x_{kj}}{x_{ij}} & (for\ benefical\ criteria) \\ \frac{x_{ij}}{\max x_{kj}} (for\ non-benefical\ criteria) \end{cases} \quad (2)$$

Ranking calculation without elimination of criteria, the calculation of the rank or total score is carried out by considering all existing criteria. Each alternative is rated based on how well they meet each normalized criterion. The alternate total score is calculated by summing the normalized value multiplied by the criterion weights (if already present). The results of this calculation are then used to create alternative rankings, with the alternative with the highest score being the best choice.

$$S_i = \ln\left(1 + \left(\frac{1}{m}\sum\left|\ln(n_{ij})\right|\right)\right) \quad (3)$$

Removal of Criteria, a single criterion is removed from the decision matrix to measure its impact on the overall score. Each iteration is done by removing one criterion from the evaluation process and recalculating the total score of each alternative based on the remaining criteria. This process aims to identify how much influence each criterion has on the final decision.

$$S'_{ij} = \ln\left(1 + \left(\frac{1}{m}\sum_{k,k\neq j}\left|\ln(n_{ij})\right|\right)\right) \quad (4)$$

Calculating the Effect of Elimination of Criteria, the calculation of the impact is carried out by comparing the total score before and after the elimination of the criteria. The effect or effect of the elimination of criteria is calculated by measuring changes in the ranking or alternative total scores that occur due to the absence of these criteria. This effect provides information about how important the criteria are in overall decision-making.

$$E_j = \sum\left|S'_{ij} - S_i\right| \quad (5)$$

Weight of each criterion, after calculating the effect of the elimination of the criterion, the weight of each criterion is determined. Criteria that have a large impact on the final score or alternative ranking will be given higher weight, while criteria with a small impact will be given lower weight. This weight reflects the importance of each criterion in decision-making and is calculated based on the effect of the elimination of criteria on the evaluation results. The resulting weights are then used to calculate the alternative final score at a later stage.

$$w_j = \frac{E_j}{\sum_k E_k} \quad (6)$$

By following these stages, the MEREC method helps to produce more objective and reliable decisions, as the weight of the criteria is determined based on their apparent impact on the evaluation results, not just on the basis of subjective judgments.

Multi-Attribute Utility Theory (MAUT)

MAUT method is a theory in decision-making that is used to evaluate and select the best alternative based on a number of relevant criteria or attributes. MAUT allows decision-makers to address situations involving multiple criteria in a systematic and structured manner, resulting in optimal decisions despite trade-offs between various criteria.

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A decision matrix is a tabular representation that describes alternatives that are evaluated based on predetermined criteria. The values present in the matrix indicate how well the alternative meets the set criteria using equation (1).

The next step is to normalize these values so that all criteria are on a uniform scale. The purpose of normalization is to ensure that each criterion has an equal weight in the calculation.

$$r_{ij}^{*} = 1 + \frac{\min x_{ij} - x_{ij}}{\max x_{ij} - \min x_{ij}} \quad (7)$$

$$r_{ij}^{*} = \frac{x_{ij} - \min x_{ij}}{\max x_{ij} - \min x_{ij}} \quad (8)$$

The utility function describes how the preferences or satisfaction of decision-makers increase or decrease as the value of the criteria changes. These functions can be linear or non-linear, depending on the nature of the decision-maker's preference for each criterion.

$$u_{ij} = \frac{e^{\left(\left(r_{ij}^{*}\right)^{2}\right)} - 1}{1.71} \quad (9)$$

The total utility value is calculated by multiplying the utility value of each criterion by the weight assigned to that criterion, and then summing the results for each alternative.

$$u_{(x)} = \sum_{j=1}^{n} u_{ij} * w_j \quad (10)$$

The MAUT method is a very useful tool in decision-making that involves many criteria, helping decision-makers to make more objective and informed choices.

3. RESULT AND DISCUSSIONS

Integrating Method based on the removal effects of criteria in MAUT for Employee Admissions Decision Making is an approach that combines two methods to improve the quality of decisions in the employee selection process. This MEREC with MAUT to assess alternatives (potential employees) based on a number of relevant criteria. In the first stage, MEREC is used to identify the influence of each criterion on the outcome of the decision by removing the criteria one by one and measuring their impact on alternative rankings. This process allows decision-makers to understand how much each criterion contributes to the final decision. Furthermore, the MAUT method is applied to evaluate and provide alternative rankings based on criteria that have been identified and weighted. MAUT calculates the total utility for each alternative by taking into account the weights of the specified criteria, which are obtained from the MEREC analysis. By integrating these two methods, decision-makers can make more objective and data-driven decisions, as the weight of the criteria is calculated based on the apparent influence of the criteria on the evaluation results. This approach not only improves accuracy in employee selection, but also allows for a deeper understanding of the importance of each criterion in the selection process, resulting in more informed and fair decisions.

Identification and Determination of Criteria

Identification and Determination of Criteria is an important initial stage in the decision-making process based on the multi-criteria method. At this stage, the first step is to identify all the relevant criteria for the purpose of the decision taken. The criteria must reflect the most important aspects and be in accordance with the objectives of the decision-making process. The results of the identification of criteria are shown in table 1.

Table 1. Criteria Data

Criterion Code	Criterion Name	Types of Criteria
K1	Education	Benefit
K2	Work Experience	Benefit
K3	Technical Skills	Benefit

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K4	Communication Skills	Benefit
K5	Cultural Compatibility	Benefit
K6	Work Ethics	Benefit

In the employee recruitment process, the assessment criteria are an important aspect to ensure that the selected candidate is in accordance with the company's needs. Education (K1) reflects the candidate's academic background, which is assessed in the range of 1-4, where 1 is high school/equivalent and 4 is the Postgraduate level (S2/S3). Work Experience (K2) describes the duration of a candidate's professional experience, which is normalized to a scale of 1-10 to provide a fair comparison between candidates. Technical Skills (K3) evaluates a candidate's technical competence based on the results of tests or assessments relevant to the position being applied for, with a score between 1 and 10. Furthermore, Communication Skills (K4) are assessed through interviews, to measure the candidate's ability to convey ideas, interact, and build interpersonal relationships effectively. Cultural Fit (K5) is a subjective assessment of HR to assess the extent to which a candidate fits into the company's values, norms, and culture. Finally, Work Ethics (K6) includes an assessment of the candidate's discipline, responsibility, and work attitude, which is also assessed on a scale of 1-10. This combination of criteria is designed to provide a comprehensive overview of the candidate's potential and suitability for the available position.

Criteria data sources in employee admissions can be obtained from various relevant references to ensure an objective and effective selection process. These criteria are usually designed based on the specific needs of the company and the position to be filled, the criteria data comes from the work competency standards that have been set by the company regarding guidelines on technical abilities, knowledge, and special skills required. The data source is from the results of interviews with relevant division managers, where additional criteria such as interpersonal ability, cultural fit, and managerial ability can be identified. This information is often combined with the results of an analysis of the company's needs, which includes long-term targets, organizational structure, and human resource development strategies.

Employee Candidate Assessment Data

Employee candidate assessment data refers to information or data collected to evaluate and assess prospective employees during the selection process. This data includes various aspects that are relevant to predetermined criteria, such as technical skills, work experience, interpersonal skills, attitudes towards work, and values that are appropriate to the organization's culture. This data can be obtained through various sources, such as interviews, skills tests, self-assessments, references to previous jobs, and psychological assessment results. The results of the assessment data are displayed in table 2.

Table 2. Employee Candidate Assessment Data

Employee Name	K1	K2	K3	K4	K5	K6
Andi Santoso	3	9	7	8	9	8
Budi Hartono	2	8	8	7	8	7
Clara Wijaya	4	7	9	9	8	9
Dian Permata	3	6	8	8	7	7
Eka Suryanto	2	8	7	6	9	8
Farah Ramadhani	4	9	8	7	9	9
Gita Wulandari	3	7	7	8	8	7
Hadi Pranoto	1	6	8	7	6	6
Indra Maulana	2	8	9	6	7	8

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This data collection process is important because it provides an objective picture of how well each candidate meets the criteria set by the company. This data also helps to compare and rank candidates based on how they meet each criterion, so that decision-makers can choose the candidate that best suits the needs of the organization. The data collected is in the form of technical skills test scores, interview scores that assess communication and leadership skills.

The data sources for candidate assessment in the employee onboarding process can come from a variety of methods designed to evaluate the candidate's abilities, potential, and suitability for the company's needs. One of the main sources is a candidate's resume or curriculum vitae, which provides information regarding their educational background, work experience, and technical skills. This data can then be validated through initial interviews designed to confirm the information while also assessing the candidate's communication skills and motivation. Additionally, the results of psychological tests or competency assessments, such as cognitive ability tests, personality tests, or situational tests, are often used to measure a candidate's potential in handling job challenges.

Determining Weighting Using MEREC

Determining weighting using MEREC is a stage in the multi-criteria-based decision-making process where the weight for each criterion is determined by measuring the impact or effect of the elimination of each criterion on the final decision. The MEREC helps to know how important each criterion is in the overall evaluation by testing its effect on alternative rankings.

A decision matrix is a tabular representation that describes alternatives that are evaluated based on predetermined criteria by using equation (1).

$$X = \begin{bmatrix} 3 & 9 & 7 & 8 & 9 & 8 \\ 2 & 8 & 8 & 7 & 8 & 7 \\ 4 & 7 & 9 & 9 & 8 & 9 \\ 3 & 6 & 8 & 8 & 7 & 7 \\ 2 & 8 & 7 & 6 & 9 & 8 \\ 4 & 9 & 8 & 7 & 9 & 9 \\ 3 & 7 & 7 & 8 & 8 & 7 \\ 1 & 6 & 8 & 7 & 6 & 6 \\ 2 & 8 & 9 & 6 & 7 & 8 \end{bmatrix}$$

Normalization is the process of equalizing the value scale of each criterion so that it can be compared fairly by using equation (2).

$$n_{11} = \frac{\min x_{11,19}}{x_{11}} = \frac{1}{3} = 0.333$$

The results of the calculation of the matrix normalization value are shown in table 3.

Table 3. The Results of the Calculation of the Matrix Normalization Value

Employee Name	K1	K2	K3	K4	K5	K6
Andi Santoso	0.333	0.667	1.000	0.750	0.667	0.750
Budi Hartono	0.500	0.750	0.875	0.857	0.750	0.857
Clara Wijaya	0.250	0.857	0.778	0.667	0.750	0.667
Dian Permata	0.333	1.000	0.875	0.750	0.857	0.857
Eka Suryanto	0.500	0.750	1.000	1.000	0.667	0.750
Farah Ramadhani	0.250	0.667	0.875	0.857	0.667	0.667
Gita Wulandari	0.333	0.857	1.000	0.750	0.750	0.857
Hadi Pranoto	1.000	1.000	0.875	0.857	1.000	1.000
Indra Maulana	0.500	0.750	0.778	1.000	0.857	0.750

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Ranking calculation without elimination of criteria, the calculation of the rank or total score is carried out by considering all existing criteria by using equation (3).

$$S_1 = \ln\left(1 + \left(\frac{1}{6}\sum\left|\ln(n_{11,61})\right|\right)\right) = 0.3465$$

The results of the ranking calculation without elimination of criteria are shown in table 4.

Table 4. The Results of the Ranking Calculation without Elimination of Criteria

Employee Name	S_1
Andi Santoso	0.3465
Budi Hartono	0.2508
Clara Wijaya	0.3932
Dian Permata	0.2660
Eka Suryanto	0.2461
Farah Ramadhani	0.3932
Gita Wulandari	0.2855
Hadi Pranoto	0.0468
Indra Maulana	0.2461

Removal of criteria, a single criterion is removed from the decision matrix to measure its impact on the overall score by using equation (4), the calculation results are shown in table 5.

Table 5. The Results of the Removal of Criteria Value

Employee Name	K1	K2	K3	K4	K5	K6
Andi Santoso	0.2079	0.2976	0.3465	0.3120	0.2976	0.3120
Budi Hartono	0.1566	0.2128	0.2333	0.2306	0.2128	0.2306
Clara Wijaya	0.2237	0.3757	0.3645	0.3465	0.3603	0.3465
Dian Permata	0.1147	0.2660	0.2488	0.2285	0.2461	0.2461
Eka Suryanto	0.1514	0.2079	0.2461	0.2461	0.1918	0.2079
Farah Ramadhani	0.2237	0.3465	0.3781	0.3757	0.3465	0.3465
Gita Wulandari	0.1374	0.2660	0.2855	0.2488	0.2488	0.2660
Hadi Pranoto	0.0468	0.0468	0.0254	0.0220	0.0468	0.0468
Indra Maulana	0.1514	0.2079	0.2128	0.2461	0.2258	0.2079

Calculating the effect of elimination of criteria, the calculation of the impact is carried out by comparing the total score before and after the elimination of the criteria by using equation (5), the calculation results are shown in table 6.

Table 6. The Results of the Calculating the Effect of Elimination of Criteria

K1	K2	K3	K4	K5	K6
1.7051	0.9501	0.8770	0.9208	0.9699	0.9085

Weight of each criterion, after calculating the effect of the elimination of the criterion, the weight of each criterion is determined by using equation (6), the calculation results are shown in table 7.

Table 6. The Results of the Calculating the Weight of Each Criteria

K1	K2	K3	K4	K5	K6
0.2693	0.1501	0.1385	0.1454	0.1532	0.1435

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The end result is a more accurate and data-driven criterion weight, which can then be used in other multi-criteria methods, such as MAUT, to make more informed and informed decisions.

Assessment Selection Using the MAUT Method

Assessment selection using the MAUT method is a stage in decision-making that involves evaluation and selection of alternatives based on several predetermined criteria. With MAUT, decision-making becomes more objective and structured, as each alternative is evaluated based on clear and measurable criteria, and sorted based on their total utility score. This allows decision-makers to choose the alternative that provides the best overall results, although there are trade-offs between various criteria.

A decision matrix is a tabular representation that describes alternatives that are evaluated based on predetermined criteria. The values present in the matrix indicate how well the alternative meets the set criteria using equation (1).

$$X = \begin{bmatrix} 3 & 9 & 7 & 8 & 9 & 8 \\ 2 & 8 & 8 & 7 & 8 & 7 \\ 4 & 7 & 9 & 9 & 8 & 9 \\ 3 & 6 & 8 & 8 & 7 & 7 \\ 2 & 8 & 7 & 6 & 9 & 8 \\ 4 & 9 & 8 & 7 & 9 & 9 \\ 3 & 7 & 7 & 8 & 8 & 7 \\ 1 & 6 & 8 & 7 & 6 & 6 \\ 2 & 8 & 9 & 6 & 7 & 8 \end{bmatrix}$$

The next step is to normalize these values so that all criteria are on a uniform scale using equation (8), because the criteria are benefit.

$$r_{11}^{*} = \frac{x_{11} - \min x_{11,19}}{\max x_{11,19} - \min x_{11,19}} = \frac{3-1}{4-1} = \frac{2}{3} = 0.6667$$

The results of the calculation of the matrix normalization value are shown in table 7.

Table 7. The Results of the Calculation of the Matrix Normalization Value

Employee Name	K1	K2	K3	K4	K5	K6
Andi Santoso	0.6667	1.0000	0.0000	0.6667	1.0000	0.6667
Budi Hartono	0.3333	0.6667	0.5000	0.3333	0.6667	0.3333
Clara Wijaya	1.0000	0.3333	1.0000	1.0000	0.6667	1.0000
Dian Permata	0.6667	0.0000	0.5000	0.6667	0.3333	0.3333
Eka Suryanto	0.3333	0.6667	0.0000	0.0000	1.0000	0.6667
Farah Ramadhani	1.0000	1.0000	0.5000	0.3333	1.0000	1.0000
Gita Wulandari	0.6667	0.3333	0.0000	0.6667	0.6667	0.3333
Hadi Pranoto	0.0000	0.0000	0.5000	0.3333	0.0000	0.0000
Indra Maulana	0.3333	0.6667	1.0000	0.0000	0.3333	0.6667

The utility function describes how the preferences or satisfaction of decision-makers increase or decrease as the value of the criteria changes by using equation (9), the calculation results are shown in table 8.

Table 8. The Results of the Calculation of the Utility Function

Employee Name	K1	K2	K3	K4	K5	K6
Andi Santoso	0.3273	1.0048	0.0000	0.3273	1.0048	0.3273
Budi Hartono	0.0687	0.3273	0.1661	0.0687	0.3273	0.0687
Clara Wijaya	1.0048	0.0687	1.0048	1.0048	0.3273	1.0048
Dian Permata	0.3273	0.0000	0.1661	0.3273	0.0687	0.0687
Eka Suryanto	0.0687	0.3273	0.0000	0.0000	1.0048	0.3273

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Farah Ramadhani	1.0048	1.0048	0.1661	0.0687	1.0048	1.0048
Gita Wulandari	0.3273	0.0687	0.0000	0.3273	0.3273	0.0687
Hadi Pranoto	0.0000	0.0000	0.1661	0.0687	0.0000	0.0000
Indra Maulana	0.0687	0.3273	1.0048	0.0000	0.0687	0.3273

The total utility value is calculated by multiplying the utility value of each criterion by the weight assigned to that criterion, and then summing the results for each alternative by using equation (10), the calculation results are shown in table 9.

Table 9. The Results of the Calculation of the Total Utility Value

Employee Name	The Total Utility Value
Andi Santoso	0.4874
Budi Hartono	0.1606
Clara Wijaya	0.7606
Dian Permata	0.1791
Eka Suryanto	0.2685
Farah Ramadhani	0.7525
Gita Wulandari	0.2060
Hadi Pranoto	0.0330
Indra Maulana	0.2643

The end result of the MAUT method is an alternative rank or sequence that is evaluated based on the total utility calculated for each alternative. The MAUT method provides a total utility value for each alternative that reflects the extent to which the alternative meets the predetermined criteria, taking into account the weight of the criteria, the ranking results are shown in Figure 1.

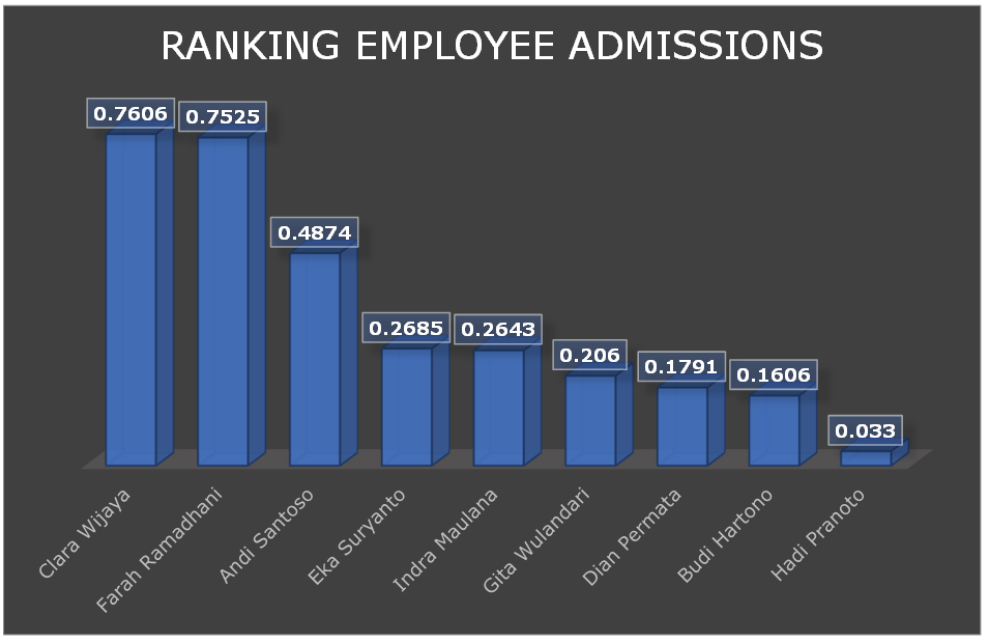

Figure 2. Table Name

The results of the employee acceptance ranking using a combination of MEREC and MAUT were obtained by Clara Wijaya occupying the first position with the highest score of 0.7606, followed by Farah Ramadhani with a score of 0.7525. The third position was filled

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by Andi Santoso with a score of 0.4874. Meanwhile, Eka Suryanto (0.2685) and Indra Maulana (0.2643) are in fourth and fifth positions. Gita Wulandari ranked sixth with a score of 0.206, followed by Dian Permata (0.1791) and Budi Hartono (0.1606). Hadi Pranoto is in last position with a score of 0.033. These ratings provide an overview of each individual's performance or eligibility based on a specific assessment.

4. CONCLUSION

The purpose of the study is to combine the principles of multi-attribute utility theory with a criterion-elimination approach to improve the decision-making process in employee recruitment which can improve objectivity, accuracy, and efficiency in the recruitment process, as well as reduce possible errors in the assessment of candidates. In addition, this study also aims to propose a model that can be adapted by organizations in optimizing employee admission decisions based on various relevant attributes. The MEREC weighting method has a number of advantages in determining the weight of the criteria objectively. The main advantage of this method is its approach which is based on the analysis of the impact of the elimination of each criterion on the final result of the evaluation, so that the resulting weight reflects the real contribution of each criterion in the decision-making process. The MEREC method reduces the risk of subjective bias that often occurs in traditional weighting methods, as the entire process is data-driven and mathematical calculations. Integrating method based on the removal effects of criteria in MAUT for employee admissions decision making is an approach that combines two methods to improve the quality of decisions in the employee selection process. This method integrates MEREC with MAUT to assess alternatives (potential employees) based on a number of relevant criteria. The results of the employee acceptance ranking using a combination of MEREC and MAUT were obtained by Clara Wijaya occupying the first position with the highest score of 0.7606, followed by Farah Ramadhani with a score of 0.7525. The third position was filled by Andi Santoso with a score of 0.4874. These ratings provide an overview of each individual's performance or eligibility based on a specific assessment.

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