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Decision Support System for Employee Recruitment Using Various Methods: A Literature Review

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ABSTRACT: Employee recruitment is a critical process in human resource management aimed at identifying and attracting individuals who best meet organizational needs. Over the past few decades, advancements in information technology have significantly transformed recruitment practices, with one notable innovation being the use of Decision Support Systems (DSS) in recruitment processes. DSS is a technology-driven tool designed to assist decision-making by providing relevant data, analysis, and recommendations. This research aims to review various methods employed in DSS for employee recruitment by examining relevant literature. By analyzing studies on DSS in recruitment, this research identifies and evaluates methods, highlights their advantages and limitations, and assesses their impact on recruitment effectiveness. The findings are expected to provide comprehensive insights for practitioners in recruitment departments and researchers developing more efficient DSS implementations.
Keywords: decision support system, employee recruitment, systematic literature review, recruitment methods, human resource management

INTRODUCTION

Employee recruitment is one of the critical processes in human resource management that aims to find and attract individuals who best fit the needs of the organization. In recent decades, the development of information technology has brought significant changes in the way organizations conduct recruitment. One prominent innovation is the use of Decision Support System (DSS) in the recruitment process (Saputra & Bachtiar, 2021).

Decision Support Systems are technology-based tools designed to assist decision-making by providing relevant data, analysis, and recommendations. In the context of employee recruitment, DSS can integrate various methods such as data, analysis machine learning algorithms, and rule-based systems to improve the efficiency and effectiveness of the selection process (Adriantantri & Indriani, 2023).

This research aims to conduct a literature review of various methods used in DSS for employee recruitment. By reviewing relevant articles, this research will identify and analyze the methods that have been applied, identify their disadvantagestheir advantages and , and assess impact on the effectiveness of the recruitment process. Through this study, it is expected to provide comprehensive insights for practitioners in divisions related to employee recruitment and researchers in developing and implementing more effective and efficient DSS.

METHOD

This research uses the Systematic Literature Review (SLR) method to identify and analyze the various methods used in the Decision Support System (DSS) for employee recruitment. SLR is research conducted by identifying, analyzing, evaluating interpreting / describing and making conclusions based on the relevance of systematically selected research

results with research subjects obtained in the a literature and then following predetermined steps in structured manner. (Nuridayah et al., 2023). The steps taken in this SLR include:

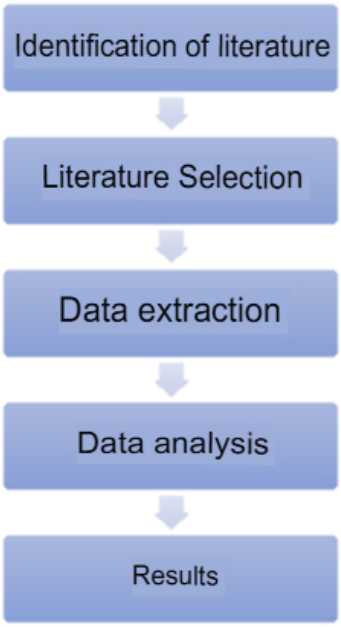

Table 1. Methods Research

a. Literature Identification
   Identify articles relevant to the research topic through searches in databases academic such as Google Scholar and IEEE Xplore. The articles selected were those published between 2021 and 2024.
b. Literature Selection
   Selected articles based on predetermined inclusion and exclusion criteria. The criteria inclusion included articles that discussed the use of DSS in employee recruitment, accredited at least Sinta 3 and the year of publication at most 2021, while the exclusion criteria included articles that were not not relevant, accredited and published before 2021.
c. Data Extraction
   Extracting data from the selected articles, namely the purpose of the researchmethods used, discussion and results and their impact on the recruitment process.
d. Data Analysis
   Analyzing the extracted data. The results of the analysis were then organized with tables to identify the research methods and results.
e. Results
   The results of the research are a recapitulation of the methods used and find out how the DSS has an impact on the effectiveness of the recruitment process.

RESULTS AND DISCUSSION

The study was conducted by identifying 55 articles and determining a total of 36 articles articles that met the inclusions set out in this study but the authors only analyzed 20 sorted by the highest accreditation. results of the recapitulated the 20 articles are as follows:

Table 2. Data Analysis

No.	Identity	Variables	Methodology	Results
1	Humisar Hasugia, Agus Umar Hamdani, Wulandari, Nofiyani, (2023), Application of SMART Method in Decision Support System for New , JOURNAL MEDIA INFORMATIKA BUDIDARMA: Vol 7, No 1Employee Recruitment	SMART method Decision support system and Employee recruitment	Respondents: prospective employees at PT Esta Dana Ventura, Simple Multi Attribute Rating Technique (SMART) , technique methodData collection sample through direct interviews with the Human Capital PT Esta Dana Ventura, department of observation of the recruitment process, analysis of recruitment documents	The results of this study indicate that the decision support system for new employee recruitment at PT Esta Dana Ventura using the Simple Multi-Attribute Rating Technique (SMART) method can assist in processing the scores from all tests and produce a final score or eligibility score for each prospective employee based on the criteria for psychological test results (20%), age (10%), work experience ()(20%), and 20%, interviews mastery of technical aspects (30%), with the results of data processing showing that Miqhiyal Noer Sopyani gets the highest score of 0.890 and recommended as the first candidate to be accepted as a new employee, so this system is objective and ensures that the selected employee is ready to work.
2	Nabilah Yadzhan Fadilah, Safitri Juanita, Pamela Larasati, (2021), Employee Recruitment Decision Support System with Multi Criteria using AHP and SAW Methods, JUSTIN (Journal of Information Systems and Technology): Vol 9, No 2	AHP and SAW methods Decision support system and Employee Recruitment	Respondents: job applicants at PT Karya Usaha Aneka Terjaya, Analytical Hierarchy Process (AHP) and Simple Additive Weighting (SAW) , techniquesmethodsSampling : interviews with company managers, observation of the recruitment process, and document analysis of recruitment criteria.	The results of this study indicate that the decision support system for employee recruitment at PT Karya Usaha Aneka Terjaya uses the Analytical Hierarchy Process (AHP) method to determine the weight of criteria such as interviews (communication, work readiness, politeness),), and , psychological tests ((skills, accuracy, personalitycompetencies knowledge)as well as the Simple Additive Weighting (SAW) method for ranking, can reduce subjectivity in assessment, , produce accurate final scores, speed up the process of administrative data collectioncalculation, and printing of job applicant scores online, thus helping companies make quick and precise decisions in the employee recruitment process.

No.	Identity	Variables	Methodology	Results
3	Sri Nurhayati, Rani Lubis, (2021),Support Employee Acceptance Decision System Using the Simple Multi-Attribute Rating Technique (SMART) Method, JUSTIN (Journal of Information Systems and Technology): Vol 9, No 2	SMART Methodsupport decision system and employee acceptance	Respondents: prospective employees of companies in Bandung, Simple Multi-Attribute Rating Technique (SMART) , techniquesmethodSampling : interviews with company HRD, direct observation during the employee recruitment process, and literature study.	The results of method this study indicate that a decision support system for employee recruitment recruitment using the Simple Multi-Attribute Rating Technique (SMART) can assist companies in selecting the right prospective employees based on criteria such as education, work experience, , , testsinterviewsage, and status, by calculating the utility value of each criterion for each prospective employee and producing a ranking order of final values that makes it easier for to companies make decisions about which prospective employees to accept, and shows that the SMART method can be implemented effectively to produce more objective and accurate decisions in the process.
4	Meidy Saputra, Lukman Bachtiar, (2021), Analysis of Employee Acceptance at PT. Srikandi Diamond Indah Motors Sampit with Analitycal Hierarchy Process (AHP) and Simple Additive Weighting (SAW) , MethodsSisfokom Journal (Information and Computer Systems): Vol 10, No 3	Employee Recruitment and AHP and SAW MethodsDecision Support System	Respondents: prospective employees at PT .Srikandi Diamond Indah Motors, Analytical Hierarchy Process (AHP) and Simple Additive Weighting (SAW) , techniquesmethodsSampling : interviews with HRD, direct observation, and literature studies from journals and related documents	The results of this study indicate that a web-based decision support system for employee recruitment at PT Srikandi Diamond Indah Motors using the Analytical Hierarchy Process (AHP) and Simple Additive Weighting (SAW) methods can assist in the selection process by comparing criteria such as age, education, experience, , and interviewswritten tests, and show that both methods have the same accuracy of 50% in selecting the best candidate from four existing alternatives, so that this system can simplify and speed up the employee recruitment selection process more efficiently and accurately.

No.	Identity	Variables	Methodology	Results
5	Moh Nafis Ahsan, Umi Chotijah, (2022), Design of Employee Acceptance Selection Decision Support System with Simple Additive Weighting (SAW) Method, JIPI (Scientific Journal of Research and Learning Informatics): Vol 7, No 1	Recruitment Employee and SAW Method Decision Support System	Respondents: prospective employees at PT .Sinergi Informatika Semen Indonesia, Simple Additive Weighting (SAW) , techniquesmethodSampling : interviews with related parties, direct observations during the selection process and literature studies	management The results of this study indicate that the decision support system for employee recruitment selection at PT Sinergi Informatika Semen Indonesia using the Simple Additive Weighting (SAW) method can improve efficiency and accuracy in the selection process by comparing the applicant' CV swith the required specifications, continuing with interviews and a series of written tests such as psychological tests and academic potential tests, and and using a ranking system to select the best alternative based on criteria such as work experience, written tests, , , educationinterviews, GPA, and the ageresults of which show that this system able to assist in making makingemployee recruitment selection more quickly and accurately, reducing errors in decision .
6	Sindhu Rakasiwi, Haryo Kusumo, Indra Laila, (2021), Employee Recruitment Decision Support System Using Web-Based , EVOLUTION: Profile Matching MethodJournal of Science and Management: Vol 9, No 2	PM Method Decision and Support System Employee Recruitment	Respondents: prospective employees at PT .Trisakti Mustika Graphika, Profile techniqueMatching method, Sampling : interviews with related parties in the company, direct observation during the recruitment process and literature study	This research produces a web-based decision support system for employee recruitment at PT Trisakti Mustika Graphika. This system helps the employee selection process by considering criteria such as psychological tests, HRD , interviewsexperience, and education, using the profile matching method to get objective and accurate results. The implementation of this system makes it easier for admin/HRD in assessing and managing data, and allows prospective employees to register online. The results show that this is system effective in selecting employees, with validation showing a good category.

No.	Identity	Variables	Methodology	Results
7	Yohana Niis Molo, Yoseph P.K Kelen, Yasinta O.L Rema, , (2022)Decision Support System for New Employee Acceptance with Website-Based StudyProfile Matching Method Case : PT.NSS Kefamenanu, Journal of TEKNO KOMPAK: Vol 16, No 1	PM Method Decision and Support System Employee Recruitment	Respondents: prospective employees at PT. NSS Kefamenanu, Profile techniqueMatching method, Sampling : interviews with HRD and managers HRD , staffdirect observation at PT. NSS Kefamenanu and literature study	This research produces a decision support system for new employee recruitment at PT. Nusantara Surya Sakti (NSS) Kefamenanu using the Profile Matching , which methodhelps the employee selection process more quickly and accurately through data collection criteria such as knowledge of the work environment, creativity, innovation, , commitmentfocus, , , measurabilityhonestydiscipline, and cooperation, data normalization, calculation of final scores, and ranking, resulting the in best employee employee candidates based on the highest score, with the implementation of a web-based system that facilitates data and management produces more objective and efficient decisions, showing that the candidate with the highest score is Nova Naiheli, who is declared eligible to be accepted as a new employee at PT. NSS Kefamenanu.
8	Wahyu Harry Bai Lumban Batu, Mesran, Soeb Aripin, (2022), Independent Labor Recruitment Decision Support System Applying the OCRA Method, J-SAKTI (Journal of Computer Science and Informatics): Vol 6, No 2	OCRA Method Decision and Support System Recruitment of independent workers	Respondents: prospective independent workers at the Manpower Office of North Sumatra , ProvinceOperational Competitiveness Rating Analysis (OCRA) , techniquemethodSampling : problem analysis, literature study and data collection through .observation and interviews and literature study	This research produces a decision support system for independent labor recruitment at the OfficeNorth Sumatra . Provincial ManpowerThis system uses the Operational Competitiveness Rating Analysis (OCRA) method to assess and select the best candidate based on criteria such as age, education level, certificate of expertise, knowledge, and skills. The results showed that the best candidate was Irna Yuni, S.Sos with the highest preference value of 0.552. The implementation of this system helps speed up and improve the accuracy of the independent workforce selection process, making it easier for agencies to make recruitment decisions.

No.	Identity	Variables	Methodology	Results
9	Yanti Yusman, Sri Nadriati, Nursaka Putra, (2022), Decision Support System for Employee Acceptance Selection at Pt Pelindo I Using the Simple Additive Weighting (SAW) Method, Digit : Digital of Information Technology: Vol 12, No 1Journal	SAW Method Decision and Support System Employee Recruitment	Respondents: prospective employees at PT Pelindo I, .Simple Additive Weighting (SAW) , techniquemethodSampling : interviews with related parties at PT Pelindo I, as well as data collection through direct observation, and literature study	This research produces a decision support system for employee recruitment selection at PT Pelindo I using the Simple Additive Weighting (SAW) . methodThis system helps the personnel department in selecting employees who match the company's criteria, reducing subjectivity in decision making, and speeding up the selection process. The criteria used include education, work experience, , psychological testinterview, , English language skills, agemarital status, and address. The results show that the alternative with the highest score is the most viable candidate to be accepted as a new employee. The implementation of this system facilitates data and management produces more accurate and objective decisions.
10	Dona Kurnia, (2021), Recruitment of New Employees Based on the Analytical Hierarchy Process (AHP) Method, Jurnal Teknoif Teknik Informatika Institut Teknologi Padang: Vol. 9 No. 2	Employee Recruitment and AHP Method Decision Support System	Respondents: prospective employees at PT Mitra .Bisnis Seluler, Analytical Hierarchy Process (AHP) , techniquemethodsampling: interviews with related parties at PT Mitra Bisnis Seluler, data collection through direct observation, and literature study	This research produces a decision support system for recruiting new employees at PT Mitra Bisnis Seluler using the Analytical Hierarchy Process (AHP) . methodThe is system designed to assist managers in decision making by presenting alternatives in ranked form. process The recruitment uses four criteria: administration, knowledge, , psychological testand interview. The implementation of this web-based system simplifies the selection process and expands the range of recruitment, resulting in qualified employees. The results show that the candidate with the highest score score of is candidate 3 with a 0.28, and this issystem effectively used for decision making in the new employee selection process.

No.	Identity	Variables	Methodology	Results
11	Rizky Ayu Saputri, Angely Noviana Sianturi, Siti Mutmainnah, Eka Rini Yulia, (2022), Decision Support System for New Employee Acceptance Using the Simple Additive Weighting (SAW) Method at PT CRESTEC INDONESIA CIKARANG, JIKO (Journal of Informatics and Computers): Vol 6, No 2	SAW Method Decision and Support System Employee Recruitment	Respondents: prospective employees at PT Crestec Indonesia, Simple Additive Weighting (SAW) , techniquemethodSampling : interviews with HRD at PT Crestec Indonesia, direct observation during the selection process and document analysis of recruitment .acriteria	Decision support system for new employee recruitment at PT. Crestec Indonesia using the Simple Additive Weighting (SAW) method helps HRD in the selection process more quickly and accurately through data collection of prospective employees, assessment of criteria such as CV and completeness of files, work experience, latest education, grades / GPA, as well as interview and , and test results, data , normalizationcalculation of final scoresranking, so as to produce the five best prospective employees, namely Agus Firmansyah Meris ,Handayani, , Eko Yudi Yudha PratamaPrasetiawan, and Andre Novit Irwanto, who were selected to fill production positions based on the highest scores, with the implementation of a web-based system that facilitates data and management produces more objective and efficient decisions.
12	Tariq Roja Abdullah, Miftahurrahma Rosyda, , (2024)Decision Support System for New Employee Acceptance Using a Combination of Analytical Hierarchy Process and Weighted Product Methods, JOURNAL OF INFORMATION SYSTEM RESEARCH (JOSH): Vol 5 No 4	AHP and WP methods Decision support system and Employee Recruitment	Respondents: prospective employees at the startup "Why Creative", a combination of Analytical Hierarchy Process (AHP) and Weighted Product (WP) , techniquesmethodsSampling : interviews with related parties at the startup "Why Creative", data collection through direct observation and document analysis of recruitment criteria.	The , decision support system for new employee recruitment recruitment at the startup "Why Creative" using a combination of Analytical Hierarchy Process (AHP) and Weighted Product (WP) methods helps managers in the process more efficiently and objectively through data collection of prospective prospective employeesemployees based on , assessment of the highest criteria such as interviews, portfolios, CVs, experience, domicile, education, and and rankingageto produce the best , , so as data , , normalizationcalculation of final scoresscoreswith the implementation of a web-based that system makes it easier to manage data and produce more accurate

No.	Identity	Variables	Methodology	Results
				decisions, as evidenced by tests that show SUS 78.5 scores of from the applicant side and 84.5 from the admin , sideas well as and SPK validity of 80%, which shows that this system is in the "Acceptable" category in accordance with expert views.
13	Lia Mazia, Lilyani Astri Utami, M. Bayu Himawan, Arum Dwi Lestari, Mila Aprilia, (2021), Employee Acceptance Decision Support System Using the Simple Method Additve Weighting (SAW) at PT PONNY EKSPRESS SUKSESTAMA JAKARTA, IJIS - Indonesian Journal On Information System: Vol 6, No 1	SAW Method Decision and Support System Employee Recruitment	Respondents: prospective employees at PT Ponny Ekspress Suksestama Jakarta, Simple Additive Weighting (SAW) , techniquemethodSampling : data collection through direct observation, interviews with related parties at PT Ponny Ekspress Suksestama Jakarta and literature study.	This research produces a decision support system for employee recruitment at PT Ponny Ekspress Suksestama Jakarta using the Simple Additive Weighting (SAW) . methodThis is system designed to help the employee selection process more quickly and accurately through data collection criteria such as education, age, communication skills, domicile, vehicle ownership, area recognition, work experience, , , motivationattitudeappearance , and responsibility, data , normalizationcalculation of final scores, and ranking, so as to produce the best prospective employees based on the highest score, with the implementation of a web-based that system facilitates data and management produces more objective and efficient decisions. The results showed that the candidate with the highest score was M. Darwis with a score of 32, followed by Rizal Pribadi, M. Kurniawan, Achmad Subhan, Andi Jaka, and Samhudi.

No.	Identity	Variables	Methodology	Results
14	Moh. Riqza Al Halimi, Muhammad Ali Ridla, Adi Susanto, (2024), Employee Acceptance Decision Support System Using Weighted Product (WP) Method at BMT NU BranchSuboh , G-Tech: Journal of Applied Technology: Vol. 8 No. 4	WP Method and Employee Recruitment	Respondents: prospective employees at KSPP Syariah BMT NU BranchSuboh , Weighted Product (WP) , technique methodThesamplingused is direct observation, interviews with related parties and document analysis of recruitment criteria.	This research produces a decision support system for employee recruitment at KSPP Syariah BMT NU Branch Suboh using the Weighted Product (WP) . methodThis is system designed to help the employee selection process more quickly and accurately through data collection criteria such as completeness of application files, latest education, work experience, , , age, skill and testsinterview tests, data normalizationcalculation of final scores, and ranking, resulting the inbest employee candidates based on the highest score. The results showed that the candidate with the highest score was Alternative 6 with a score of 0.1628, followed by Alternative 7 and Alternative 3. The implementation of this system facilitates data and management produces more objective and efficient decisions.
15	A S Purnomo, M A Dacosta, (2021), Decision Support System for New Employee Acceptance with Profile Matching Method, Constellation: Convergence of Technology and Information Systems: Vol. 1 No. 2	PM and MethodsRecruitment	Respondents: prospective employees at PT Mega Finance Yogyakarta, .Profile Matching techniquemethod, Sampling : interviews with HRD and managers HRD , staffdirect observation at PT Mega Finance Yogyakarta and analysis of recruitment documents	This research produces a decision support system for new employee recruitment at PT Mega Finance Yogyakarta using the Profile Matching . methodThis is system designed to help the employee selection process more quickly and accurately through data collection of criteria such as intelligence, targetswork , and work attitude, data , normalizationcalculation of final scores, and ranking, so as to produce the best employee candidates based on the highest score. The implementation of this web-based system facilitates data and management produces more objective and efficient decisions. The results showed that the candidate with the highest score was Mae Dacosta with a score of

No.	Identity	Variables	Methodology	Results
				3.6575, followed by Anna Molo and Ensy Noin.
16	Ogie Ariansah Pane, Muhammad Dedi Irawan, (2024), Application of AHP and VIKOR Methods in Recruiting Casual on Big Days: Study of Employees Case Ria Busana StoreLubuk Pakam , IJIS - Indonesian Journal On Information System: Vol 9, No 2	AHP and VIKOR Methods Decision Support System and Employee Recruitment	Respondents: prospective casual daily employees at Toko Ria Busana Lubuk Pakam, .Analytical Hierarchy Process (AHP) and VIKOR , techniquesmethodsSampling : direct observation at Toko Ria Busana, interviews with related parties, as well as data and data analysis of collection applicants	This research produces a decision support system for recruitment of casual daily employees at Toko Ria Busana Lubuk Pakam using a combination of Analytical Hierarchy Process (AHP) and VIKOR . methodsThis is system designed to help the employee selection process more quickly and accurately through data collection criteria such as response speed, communication skills, psychology, fashion and knowledge, time flexibility, data , normalizationcalculation of final scores, and ranking, so as to produce the best employee candidates based on the highest score. The results showed that the candidate with the highest score was Rizky Khodijah with a score of -0.001, followed by Dedek Suhendrik and Ahmad Tryalamsyah. The implementation of this web-based system facilitates data and management produces more objective and efficient decisions.
17	Ri Sabti Septarini, Rohmat Taufiq, Nurdiana Handayani, Zain Ibrahim Asy'arie, (2021), Implementation of TOPSIS MADM in the Selection of New at PT Employees Web-Based , Arthawenasakti GemilangPamulang University Informatics Journal: Vol. 6, No. 4	TOPSIS Method Decision and Support System New Employee Selection	Respondents: prospective employees at PT .Arthawenasakti Gemilang, Technique for Order Preference by Similarity to Ideal Solution (TOPSIS) , techniquemethodSampling : interviews with related parties at PT Arthawenasakti Gemilang, direct observation during the selection process, and literature study	This research produces a decision support system for selecting new employees at PT Arthawenasakti Gemilang using the Technique for Order Preference by Similarity to Ideal Solution (TOPSIS) . methodThis is system designed to help the employee selection process more quickly and accurately through data collection of criteria such as SPM , testsPapicostic tests, Craplin teststeststests, DISC , field , and interviews, data , normalizationcalculation of final scores, and ranking, resulting the inbest employee candidates based on the highest scores. The implementation of this web-

No.	Identity	Variables	Methodology	Results
				based system facilitates data and management produces more objective and efficient decisions. The results showed that the candidate with the highest score was Alpriyandi, followed by Ridwan Fauzi and Jauhar Arifin.
18	Isa Rosita, Wahyu Nur Alimyaningtias, Ronald Wiandika Auwinaldi Auw, Yustian Servanda, Sumardi, Jamal, (2022), Implementation of Additive Ratio Assessment Method as Determination of New , METIK JOURNAL: Vol 6 No 2Employee Acceptance	ARAS Method Decision and Support System Employee Recruitment	Respondents: prospective employees at Permata Abadi Group, Additive Ratio Assessment (ARAS) , techniquemethodSampling : interviews with IT , HRD, and staffoperational director at Permata Abadi Group, .as well as data collection through direct observation and literature study	This research produces a decision support system for new employee recruitment at Permata Abadi Group using the Additive Ratio Assessment (ARAS) . methodThis is system designed to help the employee selection process more quickly and accurately through data collection criteria such as leader interviews, written tests, skills, HRD interviews, , , experienceage, medical records, and distance of residence, data normalizationcalculation of final scores, and ranking, resulting the inbest prospective employees based on the highest score. The implementation of this web-based system facilitates data and management produces more objective and efficient decisions. The results showed that the candidate with the highest score was C1, followed by C7 and C8.
19	Tasya Khaerani Janubiya, Septi Andryana, Ira Diana Sholihati, (2022), E-Recruitment Using Simple Additive Weighting Method and K-Nearest Neighbor Algorithm, J-SAKTI (Journal of Computer Science and Informatics): Vol 6, No 1	SAW and K-NN methods Decision support system and E-Recruitment	Respondents: prospective employees at PT Midi Utama Indonesia Tbk, a combination of the the Simple Additive Weighting (SAW) method and K-Nearest Neighbor (K-NN) , techniquealgorithmSampling : interviews with company managers at PT Midi Utama Indonesia Tbk, as well as data collection through direct observation and literature .study	This research produces a decision support system for e-recruitment at PT Midi Utama Indonesia Tbk using a combination of Simple Additive Weighting (SAW) and method K-Nearest Neighbor (K-NN) . algorithmThis is system designed to help the employee selection process more quickly and accurately through data collection criteria such as administrative completeness, physical test scores, psychological test scores, scoresinterviews, and domicile suitability, data , normalizationcalculation of

No.	Identity	Variables	Methodology	Results
				final , and ranking, resulting the inbest prospective employees based on the highest score. The implementation of this web-based system facilitates data and management produces more objective and efficient decisions. The results showed that the candidates with the highest scores were Syaikah, Ando, and Dina, who met the eligibility score of more than 0.75 and were classified as accepted.
20	Febri Ani Dwi Safitri, Ani Yoraeni, (2022), Decision Support System for Employee Recruitment of PT Fastrata Buana Branch Tambun with TOPSIS Method, Reputation: Journal of Software : Vol. 3 No. 1Engineering	TOPSIS Method Decision and Support System Employee Recruitment	Respondents: prospective employees at PT Fastrata Buana BranchTambun , .Technique for Order Preference by Similarity to Ideal Solution (TOPSIS) , techniquemethodSampling : interviews with resource persons at PT Fastrata Buana BranchTambun , and data collection through direct observation and literature study	This research produces a decision support system for employee recruitment at PT Fastrata Buana Branch Tambun using the Technique for Order Preference by Similarity to Ideal Solution (TOPSIS) . methodThis is system designed to help the employee selection process more quickly and accurately through data collection criteria such as education, majors, , work experiencepsychometric tests, communication skills, , self-confidence, , logical thinking skillsenthusiasmleadership, and physical appearance, data , normalizationcalculation of final scores, and ranking, so as to produce the best employee candidates based on the highest score. The implementation of this web-based system facilitates data and management produces more objective and efficient decisions. The results showed that the candidate with the highest score was Raditya Nugroho with a score of 0.6966, followed by Triesula Dendi and Rano Aprianto Pamungkas.

Based on the results of a literature study of 20 research articles on decision support system methods for employee recruitment in several companies, there are various methods used in decision support systems for employee recruitment. The most methods commonly used are Simple Additive Weighting (SAW) and Analytical Hierarchy Process (AHP). The SAW

method, as used by (Ahsan & Chotijah, 2022), assists in comparing an applicant's CV with the required specifications and produces a ranking based on criteria such as work experience, written test, , educationinterview, GPA, and age. The AHP method, as applied by (Kurnia, 2021), helps in determining the weights of criteria such as administration, knowledge, psychotest and interview, which are then used for candidate ranking.

In addition to SAW and AHP, the Simple Multi-Attribute Rating Technique (SMART) is also method often used. For example, research by (Hasugian et al., 2023) shows that the SMART method can assist in processing scores from various tests and produce an objective final score based on predetermined criteria. method This is also used by (Nurhayati & Lubis, 2021) to assist companies in selecting the right prospective employees based on criteria such as education, work experience, tests interviews age, and status. The SMART method allows companies to calculate the utility value of each criterion for each prospective employee and produce a ranking order of the final value.

The Profile Matching method is also used in several studies, such as those conducted by (Rakasiwi et al., 2021) and (Molo et al., 2022). method This helps in selecting employees by considering criteria such as psychological tests, HRD, interviews experience, and education. The implementation of a web-based system with the Profile Matching method makes it easier for admin/HRD to assess and manage data, and allows prospective employees to register online. results Theshowed that this is method effective in selecting employees with validation showing a good category.

In addition, the Technique for Order Preference by Similarity to Ideal Solution (TOPSIS) is also method used in several studies. For example, research by (Septarini et al., 2021) and (Hasan & Safitri, 2022) showed that the TOPSIS method can assist in producing faster and more accurate decisions through data and normalization ranking based on relevant criteria. method This is designed to help the employee selection process more quickly and accurately through the collection of criteria data such as education, major, work experience, psychometric tests, communication skills, self-confidence logical thinking skills, enthusiasm leadership, and physical appearance.

Other methods also used are Operational Competitiveness Rating Analysis (OCRA), Additive Ratio Assessment (ARAS), and a combination of methods such as AHP and VIKOR, as well as SAW and K-Nearest Neighbor (KNN). For example, research by (Batu et al., 2022) used the OCRA method to assess and select the best candidates based on criteria such as age, education level, certificate of expertise, knowledge, and skills. Meanwhile, research by (Rosita et al., 2022) used the ARAS method to help the employee selection process more quickly and accurately through data collection of criteria such as leader interviews, written tests, skills, HRD interviews experience age, medical records and distance of residence. The combination of methods as used by (Pane & Irawan, 2024) shows that the use of AHP and VIKOR can help in the selection process of casual employees more quickly and accurately through the collection of criteria data such as response speed, communication skills, psychology, fashion, and knowledge time flexibility.

CONCLUSION

The conclusion from the literature study shows that various decision support system (DSS) methods for employee recruitment have their own advantages in improving the objectivity and efficiency of the selection process. The most methods frequently used are Simple Additive Weighting (SAW) and Analytical Hierarchy Process (AHP), which are proven to be effective in reducing subjectivity and increasing the accuracy of assessments. The SAW method helps in comparing various criteria such as work experience, education, and interview, while AHP is used to determine the weights of relevant criteria. additionIn, the Simple Multi-Attribute Rating Technique (SMART) and Technique for Order Preference by Similarity to Ideal Solution (TOPSIS) are also methods widely used due to their ability to produce more structured and objective decisions. Other methods such as Profile Matching, Operational Competitiveness Rating Analysis (OCRA), Additive Ratio Assessment (ARAS), and combinations of methods such as AHP with VIKOR or SAW with K-Nearest Neighbor (KNN) have also shown positive results in the recruitment process. The implementation of web-based systems is becoming a common trend, facilitating data and management speeding up the selection process. Overall, the selection of the right method largely depends on the specific needs of the company and the criteria it wants to prioritize in the recruitment process. With a variety of methods available, companies can choose the most suitable approach to ensure a more efficient, accurate and objective recruitment process.

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