



THE INFLUENCE OF E-RECRUITMENT ON INTENTION TO APPLY IN MANAGEMENT STUDENTS OF THE 2022 BATCH OF SILIWANGI UNIVERSITY

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Abstract. The purpose of this study is to find out and analyze the Influence of E-Recruitment on Intention to Apply in Management Students of the 2022 batch of Siliwangi University with a case study on the negative impact of the use of Artificial Intelligence in the E-Recruitment process. The research method used in this study is a quantitative method by distributing questionnaires to eighty respondents taken from students majoring in management class of 2022 at Siliwangi University regarding the Influence of E-Recruitment on Intention to Apply. The sample was drawn using simple random sampling and the analysis methods used in this study were descriptive analysis, instrument validity test, instrument reliability test, classical assumption test, simple linear regression analysis, and hypothesis test. The results of this study show that students have ignorance about the Artificial intelligence assessment work system in carrying out the E-Recruitment process, so that students feel worried and afraid because of the unclearness. However, because work is a category of needs, students put aside their worries and distrust of Artificial Intelligence to meet their needs, so that the negative impact of the use of Artificial Intelligence in the E-Recruitment process does not have a significant influence and the intention to apply for a job remains high. This research is useful as evaluation material for companies that want to integrate Artificial Intelligence in the E-Recruitment process to be more optimal in order to eliminate the anxiety of job applicants and increase trust in the E-Recruitment process by the company.

Keywords: Artificial intelligence; e-recruitment; intention to apply.

1. Introduction

Based on data from (KEMNAKER, 2024) there are 7,278,307 open unemployed, while posts about job vacancies are only 2,333 with a vacancy quota of 45,427. If averaged based on mathematical calculations, one vacancy quota can be contested by 160 people and one job advertisement is contested by 3,120 people. The data shows that *the* Intention to Apply in the Indonesian people are high due to urgent needs. This condition also shows that the recruitment process carried out by companies requires large resources and is carried out over a long period of time, therefore the rampant integration of technology in the recruitment process is more efficient. Currently, there are many new technology inventions that offer various conveniences, one of which is Artificial Intelligence (AI). The novelty of research on Artificial Intelligence this time focuses more on the perspective of prospective job applicants who will mostly face changes from technological advances in the recruitment process, rather than from the perspective of recruiters or workers that was the focus of most previous research. This research focuses on the risks that will be faced by prospective job seekers and their influence on the availability of prospective job seekers to apply for jobs which is a rare aspect in the literature. Therefore, this study aims to provide new insights into how well the recruitment system is understood and accepted by integrating AI by prospective job seekers and its

influence on the intention to apply for jobs, especially for management students of the class of 2022 at Siliwangi University.

As people's need for jobs increases and competition in every job is high, understanding the factors that affect an individual's intention to apply for a job is important. According to the Theory of Planned Behavior (Ajzen, 1991) in (Ajzen, 2024), there are three main components of attitudes toward behavior, subjective standards, and perceived control of behavior that determine whether a person will engage in certain behaviors. In the context of the use of Artificial Intelligence (AI) in the electronic recruitment process, a person's perception of the technology in question whether it is clear, transparent, or just raises concerns will shape their assessment of their willingness to comply with it. While there is a risk of bias or ambiguity in AI-based selection systems, subjective norms, such as family dynamics, social environment, and economic needs, can also encourage a person to have the ability to excel in the workplace. On the other hand, perceived behavioral control, that is perception of a person's ability to deal with the AI recruitment process becomes a crucial factor, especially when the demands of the job are heavy. Based on these three components, the theory of Planned Behavior can explain that despite the potential negative impact of the use of AI in e-recruitment, students' intention to apply for jobs remains high.

The integration of AI in various areas has become an unstoppable trend, including the corporate world. AI offers various benefits that make companies flock to integrate it in various aspects of operations. According to (Hunkenschroer & Luetge, 2022) the use of Artificial Intelligence can be used to expand the reach in the process of finding potential workers. Companies can use AI to spread ads through social media or other online media to reach potential workers. In the process, AI can also be used to create job ads to make them more attractive by using accurate keyword phrases. Then in the early stages of the recruitment process there is a CV selection process, to speed up the process companies can integrate AI. According to (Albaroudi et al., 2024) The integration of AI in the recruitment process by using the historical data that companies have will speed up the time in the CV screening process. AI can speed up the candidate screening process and find candidates who match the company's criteria, so the selection process for the next stage will be faster.

After the CV selection stage, the next stage is an interview with candidates who have been selected and have skills that are in accordance with the company's criteria. According to Rjyb-Kettler & Lehnervp, 2019; (Horodyski, 2023) at this stage, companies can integrate AI as well. Instead of hiring HR staff, companies can replace them with AI, this stage can reduce expenses. According to (Hunkenschroer & Luetge, 2022), in the interview process by integrating AI can help in the personality assessment process. AI can assess through facial mimics, tone of voice, body language, and emotions to assess personality and communication skills. Then, by combining historical data and AI, it can optimize the candidate assessment process. AI can identify the fit between a candidate's skills and the criteria required by the company. The integration of AI in the assessment process can reduce human assessment bias.

According to (Horodyski, 2023), the selection process carried out by AI is based on the company's historical data, it aims to screen candidates who suit the company's needs. However, a lack of historical data can lead to biased judgments in the algorithm. In the process, AI will select a more dominant candidate, which can sideline minorities. Such assessments can narrow a candidate's chances in the job search process and increase discrimination against minorities. In addition, according to (Hunkenschroer & Luetge, 2022), the selection process using AI can cause racial bias, namely the impact of AI's

weakness in assessing differences in intonation due to language differences, as well as differences in how to express emotions in different cultures, which can cause discrimination against certain races or ethnicities.

Then, the candidate selection process using HR staff assessments will give rise to different perspectives and assessments, this provides diversity in decision-making, the technique is inversely proportional to candidate selection based on AI assessments that do not achieve algorithmic fairness (Albaroudi et al., 2024). The assessment process carried out by AI tends to be homogeneous because AI assesses based on the company's historical data and chooses more dominant and similar parties. According to (Hunkenschroer & Luetge, 2022) for example, if the data presented for the AI assessment process is dominated by a certain group, then AI will tend to choose the dominant group.

In addition, (Albaroudi et al., 2024) argue that assessment in the selection process must emphasize the principle of fairness, in achieving this justice diverse information is needed. The process that goes through to search for deeper information can access sensitive information, this creates a privacy violation. Then, if the company does not handle data safely, it can cause unwanted data leaks for candidates. Behind the convenience and benefits provided by AI, there are negative impacts if they are not optimal, therefore alignment between AI and HR staff is needed to uphold the company's reputation in the eyes of potential workers.

According to (Marszałek-Kotzur, 2022) these negative impacts are in line with dehumanization theory, in which individuals are treated not as whole human beings, but as data or objects. The impact caused by dehumanization can affect the company's efforts to find candidates who meet the criteria in the "war of talent" conditions. In addition to having an impact on the company, these risks also have a negative impact on prospective applicants who can lower their Intention to Apply. According to (Baber, 1998; Suryanarayana, 2020), Intention to Apply is an intention possessed by individuals to pursue a job that suits their desires. The intention to apply for the job is the most necessary indicator at the recruitment stage because the intention is a strong predictor to see the behavior of the individual. High intentions and desires are manifestations that can have a good impact on the company. Based on this phenomenon, dehumanization has an impact on companies and prospective applicants, therefore this study aims to analyze whether the negative impact of the use of Artificial Intelligence in the e-recruitment process can change the Intention to Apply.

Previous research conducted (Sýkorová et al., 2024) highlighted the ethical implications of the view of experienced recruiters with the result that AI cannot completely replace humans due to risks. Therefore, this study provides another focus in terms of Intention to Apply for Management students of the class of 2022 at Siliwangi University. This study aims to examine how students' perception of the use of AI to apply for jobs is still limited, so research is needed to fill the gap.

2. Research Method

The research method used in this study is a quantitative method by distributing a questionnaire containing statements based on research variables, namely Artificial Intelligence (X) and Intention to Apply (Y). The questionnaire was compiled based on a Likert Scale of 1–5 (1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly Agree). The questionnaire items used for variable X (Artificial Intelligence) and variable Y (Intention to Apply) in this study are scales developed based on the conceptual definition and indicators that each variable has.

According to (Tian et al., 2022) Lack of understanding is a major challenge because companies must ensure that the system can understand the context of the question correctly and provide accurate and relevant responses according to the candidate's needs. Then according to (Aydin, O., & Turan, 2023) Although this technology offers high efficiency, the drawbacks include bias in the algorithm if the training data is not sufficiently representative. In addition, candidates often fail to understand how the system conducts evaluations, resulting in a lack of confidence and a lack of feedback in the selection process. Then a lack of fairness due to algorithmic bias can occur if the training data used is not too diverse. Therefore, organizations that adopt AI-based interviews must ensure that the system has been thoroughly implemented and adheres to fairness principles in the selection process. According to (Tian et al., 2022) There is also discrimination where companies must thoroughly validate predictive models to ensure that the system provides objective recommendations and does not act discriminatory during the recruitment process.

According to the Chamber and judge, 1994 in (Silva & Dias, 2025), identify 3 types of Intention to Apply; The first is Intention to apply for a job offer which is the intention of the individual to submit a job application on a job vacancy in an organization, then the second Intention to pursue a job is the intention to pursue a job that is cool and try in the list of groups of candidates who will be selected and the last Intention to accept the job is the tendency that the individual has to accept the job and have readiness.

The population of management students in 2022 is 382 people, sampling using a simple random sampling technique with a tolerated error rate of 10%, so the required respondents are 79.25, which is rounded to 80. Respondents were asked to provide answers according to their perception of the use of Artificial Intelligence in e-recruitment and its effect on Intention to Apply. This study uses several analysis techniques, namely descriptive analysis used to provide an overview of the characteristics of respondents and their responses to statement items in the questionnaire, validity tests used to determine the extent to which the statement items in the questionnaire are able to measure the variables studied, reliability tests to ensure the consistency of respondents' answers to the instruments, classical assumption tests to ensure that the model meets BLUE (Best Linear Unbiased Estimator) criteria, a simple linear regression with the main objective of verifying the H1 hypothesis (direct relationship) between Artificial Intelligence as Variable X and Intention to Apply as Variable Y. Although researchers acknowledge the potential for Mediation Variables or more complex models such as SEM given the nature of psychological constructs, Simple Regression analysis is considered adequate and most appropriate to validate the basic hypothesis. In addition, the limitations of the sample size of this study were considered more appropriate and statistically reliable to be analyzed using the Simple Regression model compared to the Structural Equation Model (SEM) or Mediation Analysis, which requires assumptions and a larger sample. Therefore, the use of Simple Linear Regression is stated to be adequate and most appropriate for the purpose of this study, namely to test the H1 hypothesis (direct relationship) of Variable X (Artificial Intelligence) and Variable Y (Intention to Apply).

3. Result and Discussion

In this study, there is a variable X, namely Artificial Intelligence with the following descriptive analysis results:

Table 1. Variable Average Description Analysis

	N	Minimum	Maximum	Mean	Std. Deviation
X	80	19.00	50.00	35.4750	6.35446
Y	80	10.00	30.00	19.6375	4.93051
Valid N (listwise)	80				

Based on the table, it can be seen that the Artificial Intelligence variable has a total average value of 35.47, while the Intention to Apply variable has a total average value of 19.63.

Table 2. Data Description Analysis

Variable	Items	Mean	Category
Lack of Understanding			
X ₁	I find it difficult to understand the use of AI in the recruitment process implemented by companies.	3,16	Moderate
X ₁	I am often confused by how AI works in selecting job applicants.	3,40	Moderate
Algorithm Bias			
X ₁	I assume that AI in recruitment can cause bias or injustice.	3,79	Strong
X ₁	I feel that AI tends to benefit certain groups over others.	3,28	Moderate
Lack of Transparency			
X ₁	I lack clear information about how AI assesses job applications.	3,81	Strong
X ₁	I don't know what criteria AI uses in the selection process.	3,79	Strong
Justice			
X ₁	I feel that the use of AI in recruitment does not guarantee fairness.	3,70	Strong
X ₁	I consider AI decisions in selecting applicants to be often unobjective.	3,56	Strong
Discrimination			
X ₁	I argue that AI can discriminate against job applicants based on certain backgrounds.	3,39	Moderate
X ₁	I'm worried that AI will treat applicants differently due to factors that are not relevant to their competencies.	3,60	Strong
Intention to Apply for a Job Offer			
Y ₁	I am still interested in applying for a job at a company that uses AI in the recruitment process even though there are negative sides that do not benefit applicants.	3,34	Moderate
Y ₁	I am willing to apply for a job even though the assessment and criteria are only limited to the company's historical data integrated in AI without looking at the applicant's profile in detail.	3,13	Moderate
Intention to Pursue a Job			
Y ₁	I will still apply for jobs even though every stage of selection is AI-based and there is minimal interaction with HRD	3,31	Moderate
Y ₁	I will still be motivated to complete all stages of recruitment even if the interaction and recruitment are AI-based	3,46	Strong
Intention to Accept a Job			
Y ₁	I am willing to accept a job offer from the company even though the selection of AI-based employees is not optimal	3,15	Moderate
Y ₁	I am willing to accept the results of the selection even though the entire assessment is dominated by AI.	3,25	Moderate

Based on table 2, variable X (Artificial Intelligence) shows that the highest score is shown in items with code X₁, namely "I lack clear information about how AI evaluates job applications" at 3.81 with a high category. While the lowest value is shown in the item with the code X₁, namely "I find it difficult to understand the use of AI in the recruitment process implemented by the company" at 3.16 with the sufficient category.

Siliwangi University students majoring in management class of 2022 have a high level of ignorance about how AI assesses job applications.

As for table 2, the Y variable (Intention to Apply) shows that the highest score is shown in the item with the code Y1, namely "I will remain motivated to complete all stages of recruitment even though the interaction and evaluation is AI-based" at 3.46 with a high category. Meanwhile, the lowest value is shown on the item with the code Y1, which is "I am willing to apply for a job vacancy even though the assessment and criteria are only limited to historical data of the company integrated in AI without looking at the details of the applicant's profile" at number 3.13 with a sufficient category. Siliwangi University students majoring in management class of 2022 have a high level of desire to complete all stages of recruitment even though the interaction and assessment are AI-based.

Based on the results of the descriptive analysis of each indicator in the X variable (Artificial Intelligence), it shows that Siliwangi University students majoring in management class of 2022 have results that are included in the high category as many as 6, namely in the indicators of algorithm bias, fairness, lack of transparency, and discrimination. Then for those who are included in the category of enough, as many as 4, namely in the indicators of lack of understanding, algorithmic bias, and discrimination which means that respondents have a high level of awareness of the negative side of Artificial Intelligence in the recruitment process. However, the Y variable (Intention to Apply) shows that Siliwangi University students majoring in management class of 2022 have results that are included in the sufficient category as many as 5, namely in the indicators of Intention to Apply for a Job Offer, Intention to Pursue a Job and Intention to Accept a Job. Then for those who are included in the high category as much as 1, namely in the Intention to Pursue a Job indicator, it shows that respondents still have the desire to apply for a job even though it is based on Artificial Intelligence.

In the validity test of variables X (Artificial Intelligence) and Y (Intention to Apply) it is stated that all statement items are valid because r is calculated $> r$ table or $\text{sig} < 0.05$. Then for the reliability test with the results of the variables X (Artificial Intelligence) of 0.881 and Y (Intention to Apply) of 0.900, the value of Cronbach's alpha > 0.70 , so that it can be concluded that all variables are reliable. The next stage is the classical assumption test by going through three stages; 1). normality test stage showing normally distributed data with a result of $0.735 > 0.05$; 2). multicollinearity test with a tolerance value $(1,000) > 0.10$ or VIF value $(1,000) < 10$ which shows that the result passes the multicollinearity test; 3). The last stage is the heteroscedasticity test with a GIS value of $(0.022) > 0.05$ which shows that it passed the heteroscedasticity test. The last stage is a simple linear regression test with a significant t-test result of $0.399, > 0.05$. These results show that the Artificial Intelligence variable does not have a significant effect on Intention to Apply. Thus, the hypothesis states that AI has no effect on Intention to Apply is accepted, while the alternative hypothesis is rejected. that although the respondents, namely students of Siliwangi University majoring in Management class of 2022, are aware of the negative side of Artificial Intelligence in the recruitment process, it does not reduce their intention to apply for jobs.

Based on research conducted by (Sýkorová et al., 2024), it can be seen that recruiters' views on AI provide benefits in the recruitment process, especially in terms of efficiency and reducing workload. However, on the other hand, recruiters also have concerns about the integration of AI in recruitment related to ethical risks regarding algorithmic bias and lack of transparency in decision-making, this is in line with the

results of research that has been conducted from the perspective of job applicants (students). The research also found new results regarding the risk of injustice experienced by prospective applicants, ignorance about the e-recruitment process, and discrimination. Both studies show that in addition to providing benefits, AI can also pose risks for companies and job applicants. However, in the aspect of intention to apply, students have a high desire to continue to complete the selection stage using AI.

4. Conclusion and Recommendations

This study aims to analyze how the use of E-Recruitment affects Intention to Apply in Siliwangi University students majoring in management class of 2022. The results of this study show that students have ignorance about the Artificial intelligence assessment work system in carrying out the E-Recruitment process, so that students feel worried and afraid because of the unclearness. However, because work is a category of needs that is not an optional choice, students put aside these worries and distrust to meet their needs, in other words, motivation and personal needs are more dominant than worries about the use of Artificial Intelligence, so that the negative impact of the use of Artificial Intelligence in the E-Recruitment process does not have a significant influence and the intention to apply for a job remains high.

This research is expected to provide benefits as evaluation material for companies that want to integrate the use of Artificial Intelligence in the E-Recruitment process to be more optimal in order to eliminate the worries of job applicants and increase confidence in the E-Recruitment process carried out by the company, and can expand the literature on the influence of the use of Artificial Intelligence in the E-Recruitment process carried out by companies against the phenomenon of Intention to Apply.

The next research can explore or add other variables that can affect the Intention to Apply, such as employer branding, organizational trust or perceived fairness as a mediating variable, further research can also use SEM analysis, and can conduct research in more detail by focusing on a real company and by selecting research objects in a wider sector. Then further research can also expand the research subject.

References

- Albaroudi, E., Mansouri, T., & Alameer, A. (2024). A Comprehensive Review of AI Techniques for Addressing Algorithmic Bias in Job Hiring. *AI (Switzerland)*, 5(1), 383–404. <https://doi.org/10.3390/ai5010019>
- Ajzen, I. (2024). *The theory of planned behavior. Organizational Behavior and Human Decision Processes*. 2(50), 179–211.
- Aydin, O., & Turan, A. (2023). Predictive analytics in talent acquisition: Enhancing recruitment accuracy with AI. *Journal of Human Resource Management*, 42(2), 112–128.
- Horodyski, P. (2023). Recruiter's perception of artificial intelligence (AI)-based tools in recruitment. *Computers in Human Behavior Reports*, 10(January), 100298. <https://doi.org/10.1016/j.chbr.2023.100298>
- Hunkenschroer, A. L., & Luetge, C. (2022). Ethics of AI-Enabled Recruiting and Selection: A Review and Research Agenda. In *Journal of Business Ethics* (Vol. 178, Issue 4). Springer Netherlands. <https://doi.org/10.1007/s10551-022-05049-6>

- MINISTRY of Agriculture. (2024). *Unemployment Data and Job Vacancy Quotas*. MINISTRY OF MANPOWER.
- Marszałek-Kotzur, I. (2022). Cognitive Technologies – Are We in Danger of Humanizing Machines and Dehumanizing Humans? *Management Systems in Production Engineering*, 30(3), 269–275. <https://doi.org/10.2478/mspe-2022-0034>
- Silva, A. J., & Dias, H. (2025). *The relationship between employer branding , corporate reputation and intention to apply to a job or ff er branding*. 31(8), 1–16. <https://doi.org/10.1108/IJOA-01-2022-3129>
- Suryanarayana. (2020). A framework for examining the effect of recruitment information sources on organizational attraction and intention to apply: Mediating role of person-organization fit. *Review of Integrative Business and Economics Research*, 10(2), 1–31.
- Sýkorová, Z., Hague, D., Dvouletý, O., & Procházka, D. A. (2024). Incorporating artificial intelligence (AI) into recruitment processes: ethical considerations.
- Tian, X., Pavur, R., Han, H., & Zhang, L. (2022). A machine learningbased human resources recruitment system for business process management: using LSA, BERT and SVM. Business Process 258. *Human Resource Theory and Implementation Journal of Management*, 29(1), 202–222.