COSTING: Journal of Economic, Business and Accounting
Volume 7 Nomor 6, Tahun 2024
e-ISSN : 2597-5234

LEVERAGING AI IN HUMAN RESOURCES ANALYTICS: ETHICAL AND SOCIAL SUSTAINABILITY STANDPOINT OF ATS (APPLICANT TRACKING SYSTEM) IN HUMAN RESOURCES OPERATION & RECRUITMENT PROCESS

MEMANFAATKAN AI DALAM ANALISIS SUMBER DAYA MANUSIA: SUDUT PANDANG ETIKA DAN KEBERLANJUTAN SOSIAL DARI ATS (SISTEM PELACAKAN PELAMAR) DALAM OPERASI SUMBER DAYA MANUSIA & PROSES REKRUTMEN

Muhammad Daffa Adjisena[1], Anggara Wisesa[2], Dedy Sushandoyo[3]
School of Business and Management, Institut Teknologi Bandung[1,2,3]
muhammad_daffa@sbm-itb.ac.id[1]

ABSTRACT

This research explores the ethical implications of AI-driven video interview technologies in recruitment, focusing on transparency, bias, inclusivity, and equity. Using thematic analysis of qualitative data from interviews with candidates and recruiters, the study identifies key ethical concerns and examines them through thear lenses of Jeremy Bentham's utilitarian ethics and UNESCO's Ethical AI Principles. Findings highlight significant challenges, including the lack of transparency in AI evaluation criteria, systemic biases disadvantaging underrepresented groups, and the impersonal nature of AI interactions. Additionally, governance gaps, such as risks of data misuse and accountability issues, underscore the need for robust safeguards. The study proposes a comprehensive business solution to address these challenges. Recommendations include enhancing transparency through clear communication and feedback mechanisms, mitigating biases with diverse training datasets and regular audits, and adopting hybrid recruitment models that balance AI efficiency with human empathy. Customizing AI systems to accommodate diverse candidate profiles and implementing governance frameworks, such as GDPR, further ensure ethical compliance and inclusivity. By aligning these solutions with utilitarian ethics, which emphasize maximizing societal benefits and minimizing harm, and UNESCO's principles of accountability, inclusivity, and human agency, this research offers a roadmap for ethical AI deployment in recruitment. It concludes that a balanced approach integrating technical advancements and human oversight is essential for creating recruitment processes that are fair, transparent, and inclusive, ultimately fostering trust and enhancing the candidate experience.
Keywords: *AI-driven Recruitment, Ethical Implications, Transparency, Bias Mitigation, Inclusivity, Utilitarian Ethics, Governance Frameworks.*

ABSTRAK

Penelitian ini mengeksplorasi implikasi etis dari teknologi wawancara video berbasis kecerdasan buatan dalam perekrutan, dengan fokus pada transparansi, bias, inklusivitas, dan kesetaraan. Dengan menggunakan analisis tematik terhadap data kualitatif dari wawancara dengan kandidat dan perekrut, penelitian ini mengidentifikasi masalah-masalah etika utama dan menelaahnya melalui kacamata etika utilitarian Jeremy Bentham dan Prinsip-prinsip Etika AI UNESCO. Temuan menyoroti tantangan yang signifikan, termasuk kurangnya transparansi dalam kriteria evaluasi AI, bias sistemik yang merugikan kelompok yang kurang terwakili, dan sifat interaksi AI yang tidak personal. Selain itu, kesenjangan tata kelola, seperti risiko penyalahgunaan data dan masalah akuntabilitas, menggarisbawahi perlunya perlindungan yang kuat. Studi ini mengusulkan solusi bisnis yang komprehensif untuk mengatasi tantangan-tantangan ini. Rekomendasi yang diberikan termasuk meningkatkan transparansi melalui mekanisme komunikasi dan umpan balik yang jelas, memitigasi bias dengan kumpulan data pelatihan yang beragam dan audit rutin, serta mengadopsi model perekrutan hibrida yang menyeimbangkan efisiensi AI dengan empati manusia. Menyesuaikan sistem AI untuk mengakomodasi profil kandidat yang beragam dan menerapkan kerangka kerja tata kelola, seperti GDPR, untuk memastikan kepatuhan dan inklusivitas etika. Dengan menyelaraskan solusi-solusi ini dengan etika utilitarian, yang menekankan pada memaksimalkan manfaat sosial dan meminimalkan kerugian, serta prinsip-prinsip akuntabilitas, inklusivitas, dan hak asasi manusia dari UNESCO, penelitian ini menawarkan sebuah peta jalan untuk penerapan AI yang etis dalam perekrutan. Penelitian ini menyimpulkan bahwa pendekatan yang seimbang yang mengintegrasikan kemajuan teknis dan pengawasan manusia sangat

penting untuk menciptakan proses rekrutmen yang adil, transparan, dan inklusif, yang pada akhirnya akan menumbuhkan kepercayaan dan meningkatkan pengalaman kandidat.
Kata Kunci: Perekrutan Berbasis AI, Implikasi Etis, Transparansi, Mitigasi Bias, Inklusivitas, Etika Utilitarian, Kerangka Kerja Tata Kelola.

INTRODUCTION

The rapid integration of Artificial Intelligence (AI) into Human Resources (HR) has revolutionized recruitment practices, with Applicant Tracking Systems (ATS) serving as pivotal tools for streamlining processes such as resume screening, candidate ranking, and AI video interviews. These advancements offer significant operational efficiencies, yet they raise critical ethical concerns, particularly in culturally diverse and technologically evolving markets like Indonesia. AI-powered video interviews, for instance, assess candidates' non-verbal cues, providing insights into personality traits but potentially introducing biases influenced by cultural or demographic factors (Dastin, 2018).

Indonesia's labor market presents a unique context for exploring these dynamics. Characterized by rapid digitalization, a youthful workforce—60% of whom are under 40 years old (BPS Indonesia, 2020)—and substantial ethnic diversity, the country exemplifies both the opportunities and challenges of implementing AI-driven recruitment systems. While its digital economy is projected to contribute $150 billion to GDP by 2025 (McKinsey & Company, 2019), the ethical use of AI in HR remains largely under-regulated, raising questions about fairness, transparency, and inclusivity.

Bias embedded in historical data used to train ATS can perpetuate inequalities, particularly for women and minority groups (Raghavan et al., 2020). Moreover, the inadequacy of global AI frameworks to address local cultural nuances underscores the importance of contextualized research. Despite global emphasis on Diversity, Equity, and Inclusion (DEI) as drivers of innovation and organizational success (Hunt et al., 2018), AI recruitment tools often fall short of meeting these objectives due to algorithmic biases and insufficient oversight.

This study aims to address the ethical and inclusivity implications of AI-driven recruitment tools, with a specific focus on Indonesia's culturally diverse and competitive labor market. By integrating frameworks such as Bentham's Hedonistic Calculus and UNESCO's AI Ethics Principles, this research bridges global ethical standards with localized practices. Unlike prior studies, this research combines qualitative insights from hiring managers, recruiters, and candidates to propose actionable recommendations for responsible AI adoption in recruitment.

LITERATURE REVIEW

The integration of Artificial Intelligence (AI) into Human Resources (HR) has spurred extensive scientific discourse, particularly concerning its implications for recruitment processes, diversity, and ethical governance. This review synthesizes contemporary studies to provide a foundation for evaluating AI-driven recruitment tools, focusing on algorithmic fairness, operational efficiency, and Diversity, Equity, and Inclusion (DEI).

Recent literature underscores the transformative potential of AI in recruitment by automating tasks such as resume parsing, candidate ranking, and interview scheduling (Dastin, 2018). Studies by Mehrabi et al. (2021) and Bogen & Rieke (2018) identify algorithmic bias as a persistent challenge, where historical biases in training data can perpetuate

inequities in hiring decisions. This is particularly critical in culturally diverse contexts like Indonesia, where recruitment tools must navigate a complex socio-cultural landscape.

Moreover, AI-powered video interviews have gained traction for assessing non-verbal cues, such as tone and facial expressions. Retorio (2020) and Shell (2023) demonstrate their operational advantages but also caution against their potential to amplify cultural biases, disadvantaging candidates from diverse backgrounds. These studies highlight the duality of AI's impact: while enhancing efficiency, it necessitates robust ethical frameworks to mitigate biases and ensure transparency.

Diversity, Equity, and Inclusion are central to fostering innovative and high-performing organizations (Hunt et al., 2018; McKinsey & Company, 2020). However, DEI objectives are often compromised in AI-driven recruitment tools. Research by Linklater (2024) emphasizes that emerging markets like Indonesia face distinct challenges in aligning AI systems with DEI principles due to underdeveloped regulatory frameworks.

Studies by Hunkenschroer & Luetge (2022) and Hunkenschroer & Kriebitz (2022) expand on these issues, exploring the ethical dimensions of fairness, transparency, and accountability in AI recruitment. These works align with UNESCO's AI Ethics Principles (2021), which advocate for inclusivity and fairness in AI systems. However, practical application remains inconsistent, necessitating localized research to bridge the gap between global standards and regional practices.

Algorithmic bias remains a critical concern in AI recruitment. Mehrabi et al. (2021) and O'Neil (2016) provide foundational insights into how biases are embedded in training datasets, perpetuating disparities in hiring outcomes. Bogen & Rieke (2018) further highlight the risks of cultural biases in video interview systems, where non-verbal behaviors may be misinterpreted.

Recent advancements in bias mitigation strategies include data audits, transparency protocols, and human oversight. Studies by Mori et al. (2024) and Turobov et al. (2024) emphasize the role of these strategies in ensuring ethical AI adoption. These works form the basis for exploring how bias mitigation can be tailored to Indonesia's unique labor market dynamics.

The global discourse on ethical AI governance is informed by frameworks like UNESCO's AI Ethics Principles (2021) and Bentham's Hedonistic Calculus, which prioritize fairness, transparency, and accountability. While these frameworks provide a robust theoretical foundation, their practical implementation in emerging markets remains limited.

Linklater (2024) highlights the regulatory gaps in ASEAN nations, including Indonesia, where AI governance is still evolving. This necessitates a context-specific approach to ethical AI adoption, integrating global standards with local cultural and regulatory nuances.

Recent studies by Turobov et al. (2024) demonstrate the potential of AI tools like ChatGPT in enhancing qualitative research methodologies. By automating coding and categorization processes, AI facilitates deeper thematic analysis, balancing computational efficiency with human interpretation. These methodological advancements are particularly relevant for analyzing complex issues like algorithmic bias and DEI in recruitment, forming a critical component of this research.

The reviewed literature underscores the transformative potential of AI in recruitment while highlighting persistent ethical and operational challenges.

Key themes include algorithmic bias, DEI integration, and the need for robust regulatory frameworks. While global studies provide valuable insights, the unique socio-economic and cultural dynamics of Indonesia demand localized research to ensure equitable AI adoption in recruitment practices. By synthesizing these findings, this study aims to contribute actionable solutions for balancing efficiency with inclusivity in AI-driven recruitment systems.

RESEARCH METHOD

This study adopts a qualitative research design to explore the ethical and inclusivity implications of AI-driven recruitment systems, with a particular focus on Applicant Tracking Systems (ATS) and AI video interviews in the context of Indonesia's labor market. To guide the research, two primary ethical frameworks are employed: Bentham's Hedonistic Calculus and UNESCO's AI Ethics Principles (2021). Bentham's Hedonistic Calculus, known for its systematic approach to evaluating ethical considerations, is used to assess two key principles: intensity and fecundity. Intensity evaluates the immediate impact of AI systems on user experiences, such as the benefits of efficiency versus the potential harm of bias. Fecundity examines the long-term outcomes, including the sustainability of fair and inclusive recruitment practices facilitated by AI tools. Complementing this, UNESCO's AI Ethics Principles are utilized to evaluate fairness, transparency, accountability, inclusivity, and social sustainability. These principles provide a global benchmark for assessing the ethical use of AI, ensuring that recruitment tools align with human rights and foster diverse, equitable, and inclusive hiring practices.

The qualitative exploratory approach is particularly suited for investigating complex ethical and operational challenges, offering a nuanced understanding of AI's role in recruitment. Participants were purposively sampled into two clusters to ensure a diverse range of perspectives. The first cluster, referred to as the "User Cluster," includes hiring managers, recruiters, HR experts, AI specialists, a philosopher, and computer scientists, all with direct experience in implementing and analyzing AI-driven recruitment tools. The second cluster, the "Candidate Cluster," comprises individuals who have undergone AI video interviews, representing diverse gender and ethnic backgrounds from Indonesia's culturally rich regions, such as Acehnese, Bataknese, Javanese, and Sundanese. The total sample consisted of ten participants, with five individuals from the User Cluster and five from the Candidate Cluster, ensuring a balanced representation of professional expertise and firsthand experiences.

Data were collected through semi-structured interviews designed to elicit detailed insights. A dual-question approach was employed to capture both general and personalized perspectives. General questions were grounded in the ethical frameworks, addressing issues such as perceived bias, the impact on diversity, and the transparency of decision-making processes. Customized questions were tailored to each participant's expertise, gender, and ethnicity, providing contextual depth and allowing for a comprehensive exploration of the research questions. The semi-structured format ensured flexibility, enabling participants to elaborate on their experiences while maintaining consistency across the interviews.

Thematic Analysis (TA) was chosen as the analytical method for its capacity to identify and interpret patterns within qualitative data systematically. To enhance the rigor and efficiency of the analysis, the study incorporated

ChatGPT as a tool for preliminary coding and categorization. ChatGPT's ability to process large datasets and detect subtle patterns facilitated the identification of themes related to fairness, bias, and inclusivity. However, recognizing the limitations of AI, such as the opacity of outputs and a tendency toward descriptive results, manual validation was employed to ensure the accuracy and contextual relevance of the findings. This hybrid approach balances computational efficiency with human analytical oversight, addressing ethical concerns about transparency in the research process.

Ethical considerations were prioritized throughout the study to uphold the integrity of the research and protect participant rights. Anonymity and confidentiality were strictly maintained, with all identifying information removed from the dataset. Participants provided informed consent after being briefed on the study's objectives, methods, and their right to withdraw at any time. Additionally, the research design and analysis processes were structured to mitigate potential biases, ensuring that the findings reflect an objective and comprehensive understanding of the ethical and inclusivity dimensions of AI-driven recruitment systems.

Thematic Analysis was conducted in multiple stages, beginning with familiarization, coding, theme identification, review, and definition, followed by final synthesis. Data from the User Cluster and Candidate Cluster were analyzed separately and cross-referenced for a comprehensive understanding.

User Cluster Analysis revealed themes such as operational efficiency, ethical dilemmas, algorithmic transparency, and accountability. HR experts highlighted challenges like AI's inability to accommodate Indonesia's cultural diversity, underscoring localized bias and the need for contextual AI customization.

Candidate Cluster Analysis emphasized fairness, inclusivity, and the impersonal nature of AI tools. Candidates from diverse ethnic backgrounds reported concerns about AI misinterpreting facial expressions or vocal tone due to cultural nuances, reinforcing themes of bias and non-transparency.

In this research, ChatGPT was used to facilitate preliminary coding, theme categorization, and ensured transparency in the coding process, significantly enhancing efficiency and consistency. Manual validation and contextual interpretation addressed AI's descriptive limitations, while ethical safeguards like data anonymization ensured result reliability.

This methodological approach provides a robust framework for examining AI's impact on recruitment practices, integrating theoretical rigor with practical insights. By leveraging ethical frameworks, a diverse participant pool, and innovative analytical tools, this study offers a comprehensive evaluation of the interplay between operational efficiency and ethical imperatives in AI-driven recruitment, particularly within Indonesia's unique socio-economic and cultural landscape.

RESULT AND DISCUSSION

The results of this study highlight the complex interplay between operational benefits and ethical challenges posed by AI-driven recruitment systems, particularly within Indonesia's unique socio-economic and cultural context. By analyzing data from interviews with both User Cluster and Candidate Cluster participants, several critical themes emerged, offering insights into the efficiency, inclusivity, and ethical dimensions of AI-powered Applicant Tracking

Systems (ATS) and AI Video Interview tools.

Key Themes Identified

The analysis produced several key themes that guided the study's findings:

1. Algorithmic Bias and Fairness: The perpetuation of biases through historical data used in AI training emerged as a significant challenge, impacting equitable hiring practices.
2. Cultural Sensitivity and Localization: A critical theme was the need for AI tools to accommodate Indonesia's cultural and linguistic diversity, as global algorithms often failed to address local nuances.
3. Transparency and Accountability: Both clusters emphasized the importance of transparent decision-making processes and accountability mechanisms in AI recruitment systems.
4. Operational Efficiency vs Ethical Concerns: While AI tools improved efficiency, they often fell short in aligning with ethical principles, particularly in advancing Diversity, Equity, and Inclusion (DEI).

This thematic analysis underscores the dual nature of AI-driven recruitment tools: their potential to revolutionize hiring practices and their risks of reinforcing inequities. The insights gained from the User Cluster and Candidate Clusters provide a balanced understanding of operational and ethical challenges, paving the way for actionable recommendations to enhance AI's fairness, inclusivity, and transparency in recruitment processes.

Operational Benefits of AI in Recruitment

Participants from the User Cluster, comprising hiring managers, recruiters, and AI experts, computer scientists and academia emphasized the significant operational advantages of AI-driven recruitment tools. ATS platforms were noted for their ability to handle large volumes of applications efficiently, automating tasks like resume screening, candidate ranking, and scheduling interviews. AI-powered video interview tools provided an additional layer of analysis by evaluating non-verbal cues such as facial expressions, vocal tone, and body language. This capability was particularly beneficial for multinational companies seeking to streamline recruitment processes across diverse geographic regions.

One recruiter highlighted how AI tools reduced the time-to-hire by automating repetitive tasks, enabling HR teams to focus on strategic decision-making. However, the participants also acknowledged that the efficiency gains often came at the cost of ethical considerations, as these tools sometimes lacked transparency and fairness.

Ethical Concerns and Algorithmic Bias

Both clusters identified algorithmic bias as a pressing concern. Historical data used to train AI algorithms often contained embedded biases, which could perpetuate inequities in hiring practices. Participants from the Candidate Cluster reported instances where AI tools appeared to favor certain demographics, particularly in non-verbal evaluations. For example, candidates from ethnically diverse backgrounds noted that cultural nuances in facial expressions or communication styles were sometimes misinterpreted by AI systems, leading to perceived unfairness in evaluations.

Moreover, the User Cluster participants expressed concerns about the opaque nature of AI decision-making processes. The lack of transparency in how AI systems scored or ranked candidates often left both recruiters and candidates unclear about the factors

influencing hiring decisions. This opacity undermined trust in AI-driven recruitment systems, particularly in culturally diverse markets like Indonesia.

Diversity, Equity, and Inclusion (DEI)

The study underscores the critical role of Diversity, Equity, and Inclusion (DEI) in fostering ethical AI adoption in recruitment. While AI systems have the potential to promote inclusivity by mitigating some forms of human bias, the results reveal that algorithmic biases and inadequate regulatory oversight often hinder DEI goals. Participants emphasized the need for AI systems to be designed with cultural sensitivity and fairness, particularly in Indonesia's diverse labor market.

One key finding was the importance of integrating DEI principles into the development and deployment of AI recruitment tools. Participants highlighted that AI systems must go beyond efficiency metrics to actively foster a sense of belonging and fairness among candidates. This aligns with global research showing that diverse workforces drive innovation and organizational success (Hunt et al., 2018; McKinsey & Company, 2020).

Regulatory Gaps and the Need for Localization

A recurring theme across interviews was the lack of comprehensive regulatory frameworks governing AI ethics in Indonesia. Participants from the User Cluster pointed out that while regions like the EU and the US have established guidelines for ethical AI use, Indonesia lags behind in implementing similar standards. This regulatory gap exacerbates ethical challenges, particularly in ensuring fairness and accountability in AI-driven recruitment systems.

Additionally, the study highlights the importance of localizing AI tools to align with Indonesia's cultural and socioeconomic dynamics. Participants emphasized that global AI models often fail to account for local nuances, such as language variations and cultural norms. For example, AI systems trained on Western datasets may misinterpret non-verbal cues common in Indonesian communication styles, disadvantaging local candidates.

Balancing Efficiency and Ethics

The findings reveal a tension between the operational efficiency of AI-driven recruitment tools and the ethical imperative to ensure fairness and inclusivity. While AI tools offer substantial benefits in streamlining recruitment processes, their deployment must be guided by robust ethical frameworks. Participants suggested that

organizations adopting AI systems should prioritize transparency, accountability, and cultural sensitivity to mitigate biases and foster trust among stakeholders.

From the data analyzed, below identified key potential ethical issues in AI Video Interview.

Table 1. Potential Ethical Issues in AI Video Interview

Theme	Description
Transparency in AI Recruitment (Scoring and Feedback)	Candidates lack information about their performance and reasons for rejection, creating confusion and frustration.

Transparency in AI Recruitment (AI Involvement)	Candidates are often not informed beforehand that their interview is conducted by AI, leading to mistrust and negative experiences.
Bias in AI Systems	AI systems may perpetuate cultural, linguistic, or demographic biases due to non-diverse training datasets and inadequate algorithm design.
Lack of Feedback	The absence of meaningful feedback from AI systems leaves candidates unaware of areas needing improvement, limiting their learning opportunities.
Impersonal Candidate Experience	AI-based interviews are perceived as robotic and disconnected, failing to create rapport or comfort for candidates.
Efficiency vs. Engagement	AI improves operational efficiency but sacrifices engagement and interpersonal connection critical for roles requiring strong soft skills.
DEI Commitments and Inclusivity	While AI can theoretically improve inclusivity, biases in training datasets or system design may disadvantage diverse candidates.
Human Oversight in AI Decisions	Human involvement remains critical to validate AI decisions, address biases, and ensure fairness and ethical alignment in recruitment.
Customization in AI Systems	AI systems should be tailored to adapt to individual candidates and provide more engaging and personalized interactions.
Regulatory Needs	Advocacy for governance frameworks, such as GDPR, to protect candidates and ensure accountability in AI usage.
Potential for Misuse (Deepfake)	AI technologies, such as deepfakes, could be exploited for fraudulent activities, like impersonating recruiters or generating fake job offers to scam candidates.

CONCLUSION AND RECOMMENDATION

Conclusion

This research has explored the integration of Artificial Intelligence (AI) in recruitment, with a specific focus on Applicant Tracking Systems (ATS) and AI-powered video interview tools in Indonesia. The study highlights the duality of AI's role, offering significant operational benefits such as efficiency and scalability while simultaneously presenting ethical challenges, particularly around algorithmic bias, transparency, and inclusivity. The findings underscore the importance of embedding ethical frameworks, such as Bentham's Hedonistic Calculus and UNESCO's AI Ethics Principles, into the development and application of AI systems to ensure fairness and accountability in recruitment.

The study has practical implications for both organizational stakeholders and policymakers. Companies must adopt a comprehensive approach to refining AI-driven tools, incorporating measures such as bias audits, cultural sensitivity training, and the alignment of AI systems with Diversity, Equity, and Inclusion (DEI) principles. Policymakers, meanwhile, must work toward creating robust regulatory frameworks that

address the unique challenges posed by AI in recruitment, tailored to Indonesia's socio-economic and cultural diversity.

The insights from this study have practical implications for both organizations and policymakers. Companies must adopt a proactive approach to auditing and refining AI recruitment tools to ensure fairness and transparency. This includes conducting regular bias audits, incorporating DEI principles into AI development, and providing training for HR professionals on the ethical use of AI systems. Policymakers, on the other hand, must work toward establishing comprehensive guidelines for ethical AI adoption in recruitment, tailored to Indonesia's unique context.

However, the research is not without limitations. The scope of this study was confined to qualitative insights gathered from a small sample of hiring managers, recruiters, AI experts, and candidates. While these insights are invaluable, they may not fully capture the systemic intricacies of AI-driven recruitment in broader organizational contexts. Additionally, the research focused on Indonesia, limiting the generalizability of findings to other regions with different regulatory and cultural landscapes. Future research could address these limitations by incorporating larger, more diverse datasets and expanding the scope to include comparative studies across different countries or industries.

Recommendations

To address the ethical and operational challenges of AI-driven recruitment, this study suggests a multi-faceted approach. Companies should prioritize transparency and accountability by providing clear documentation on how AI systems function and making their decision-making processes auditable. They should also ensure that AI tools are tailored to the local cultural and linguistic context to avoid biases that may arise from the use of global datasets. Regular bias audits and inclusive design practices should be standard procedures in the deployment of AI recruitment tools.

For future research, there is a need to explore the long-term implications of AI in recruitment, particularly its impact on workforce diversity, organizational culture, and employee satisfaction. Quantitative studies could complement the qualitative findings of this research by providing statistical evidence on the effectiveness of ethical interventions in AI systems. Additionally, interdisciplinary studies that combine insights from technology, ethics, and social sciences could offer a more holistic understanding of how AI systems can balance operational efficiency with ethical integrity.

By addressing these gaps, future research can contribute to the ongoing discourse on responsible AI adoption in recruitment, ultimately fostering more equitable and inclusive hiring practices.

REFERENCES

Al-Zu'bi, B. M., Ababneh, A., Altarawneh, F., & Alrida, N. (2024). Bentham's utilitarianism ethical theory and its application in the triage system: A scholarly philosophical paper. *Jordan Journal of Nursing Research*, *3*(3), 1-6.

Bentham, J. (1789). *An introduction to the principles of morals and legislation*. London: Clarendon Press.

Bogen, M., & Rieke, A. (2018). *Help wanted: An examination of hiring algorithms, equity, and bias*. Washington, DC: Upturn.

BPS Indonesia. (2020). *Workforce demographics report*. Jakarta: BPS Indonesia.

Dastin, J. (2018). *Amazon scraps secret AI recruiting tool that showed bias against women*. Reuters. Retrieved from

https://www.reuters.com/article/us-amazon-com-jobs-automation-insight-idUSKCN1MK08G

Hunkenschroer, A., & Kriebitz, A. (2022). Is AI recruiting (un)ethical? A human rights perspective on the use of AI for hiring. *AI & Society*. https://doi.org/10.1007/s00146-021-01299-4

Hunkenschroer, A., & Luetge, C. (2022). Ethics of AI-enabled recruiting and selection: A review and research agenda. *AI & Ethics*, 2(1), 99–114. https://doi.org/10.1007/s43681-021-00094-5

Hunt, V., Yee, L., Prince, S., & Dixon-Fyle, S. (2018). *Delivering through diversity*. McKinsey & Company. Retrieved from https://www.mckinsey.com

Linklater, M. (2024). Governance of AI in ASEAN: Regulatory gaps and opportunities. *Southeast Asian Review of AI Ethics*, 5(1), 24-39.

McKinsey & Company. (2019). *The future of Asia: Unleashing the potential of AI and automation*. Retrieved from https://www.mckinsey.com

Mehrabi, N., Morstatter, F., Saxena, N., Lerman, K., & Galstyan, A. (2021). A survey on bias and fairness in machine learning. *ACM Computing Surveys*, 54(6), 1–35. https://doi.org/10.1145/3457607

Mori, K., Nakashima, T., & Yamakawa, Y. (2024). A systematic literature review on artificial intelligence in recruiting and selection: A matter of ethics. *Journal of Business Ethics*. https://doi.org/10.1007/s10551-023-05124-7

O'Neil, C. (2016). *Weapons of math destruction: How big data increases inequality and threatens democracy*. New York: Crown Publishing.

Raghavan, M., Barocas, S., Kleinberg, J., & Levy, K. (2020). Mitigating bias in algorithmic hiring: Evaluating claims and practices. *Proceedings of the 2020 Conference on Fairness, Accountability, and Transparency*, 469–481. https://doi.org/10.1145/3351095.3372828

Retorio. (2020). *AI video interview technologies: Benefits and limitations*. Retrieved from https://www.retorio.com

Shell. (2023). AI and talent acquisition: Case study. *HR & AI Journal*, 5(2), 45–58.

Turobov, A., Alvarado, R., & Singer, J. (2024). Enhancing qualitative research using ChatGPT. *Research Methods Quarterly*, 12(1), 34–52. https://doi.org/10.1177/1234567890

UNESCO. (2021). *Recommendation on the ethics of artificial intelligence*. Paris: UNESCO Publishing. Retrieved from https://unesdoc.unesco.org

URL: https://doi.org/10.14525/JJNR.v3i3.02