



UNIVERSIDADE CATÓLICA PORTUGUESA

“TRUST THE PROCESS”: ANALYZING THE EFFECTS OF AI-
BASED RECRUITMENT PROCESSES ON THE PERCEPTION OF
DIVERSE JOBSEEKERS

Dissertation to Universidade Católica Portuguesa to obtain
a Master’s Degree in “Psychology in Business and
Economics”

By

Lilly Fiona Ira Graßmann

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Abstract

This dissertation investigates the impact of AI-assisted recruitment processes on candidates' job preferences and perceived fairness, focusing on individuals prone to discrimination due to non-native appearances or names. AI technologies promise to reduce biases inherent in human-led recruitment processes, which often result in discriminatory practices based on ethnicity, gender, or name origin. Through a web-based survey of 259 participants, this research evaluates the trust candidates place in AI versus human recruiters, their likelihood to apply to companies using AI, and their perception of organizational commitment to diversity. The results show that individuals with non-native names or appearances trust AI-assisted processes more than traditional ones and are more likely to apply to organizations that utilize AI in recruitment processes. These findings highlight AI's potential to promote fairness and inclusivity in recruitment, however they also call attention to the need for ethical oversight to prevent new forms of bias encoded in AI systems. This research contributes to understanding the role of AI in fostering diversity and offers practical implications for organizations seeking to integrate AI into their hiring practices.

Keywords: Artificial Intelligence, AI-assisted recruitment, discrimination, non-native appearance, non-native name, perceived fairness, job preferences, diversity, hiring bias, organizational commitment, trust in AI, inclusive hiring practices.

Resumo

Esta dissertação investiga o impacto dos processos de recrutamento assistidos por IA nas preferências de emprego dos candidatos e na percepção de justiça, centrando-se em indivíduos propensos a discriminação devido a aparências ou nomes não nativos. As tecnologias de IA prometem reduzir os preconceitos inerentes aos processos de recrutamento conduzidos por humanos, que resultam frequentemente em práticas discriminatórias baseadas na etnia, no género ou na origem do nome. Através de um inquérito baseado na Web a 259 participantes, esta investigação avalia a confiança que os candidatos depositam na IA em comparação com os recrutadores humanos, a sua probabilidade de se candidatarem a empresas que utilizam IA e a sua percepção do empenho organizacional na diversidade. Os resultados mostram que os indivíduos com nomes ou aparências não nativos confiam mais nos processos assistidos por IA do que nos tradicionais e são mais propensos a candidatar-se a organizações que utilizam IA nos processos de recrutamento. Estas conclusões realçam o potencial da IA para promover a equidade e a inclusão no recrutamento, mas também chamam a atenção para a necessidade de supervisão ética para evitar novas formas de preconceito codificadas nos sistemas de IA. Esta investigação contribui para a compreensão do papel da IA na promoção da diversidade e oferece implicações práticas para as organizações que procuram integrar a IA nas suas práticas de contratação.

Palavras-chave: Inteligência Artificial, recrutamento assistido por IA, discriminação, aparência não nativa, nome não nativo, justiça percebida, preferências de emprego, diversidade, viés de contratação, compromisso organizacional, confiança na IA, práticas de contratação inclusivas.

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1. Introduction

1.1 Background and Objectives

The recruitment process has long been fraught with conscious and unconscious biases that significantly impact workplace diversity and inclusivity. Traditional recruitment methods often rely on human judgment, making them susceptible to biases based on a candidate's name, gender, sexuality, ethnicity, or perceived socio-economic status. These biases can result in discriminatory practices, excluding qualified candidates from diverse backgrounds and ultimately hindering organizational diversity and performance.

The phenomenon of discrimination against individuals with foreign-sounding names during the recruitment process has been extensively documented in various studies, revealing a persistent bias that affects job applicants from ethnic minorities. Empirical evidence from field experiments and statistical analyses demonstrates a significant disparity in callback rates between applicants with ethnic names and those with names perceived as belonging to the majority group. For instance, a study in Sweden found that applicants with foreign-sounding names received callbacks at a rate of 29.4%, compared to 44.0% for those with Swedish-sounding names, indicating a significant difference of 14.6 percentage points ($p < 0.001$) (Erlandsson, 2023). Similar patterns have been observed in other countries, such as Canada, where applicants with English-sounding names received interview requests 40% more often than those with Chinese, Indian, or Pakistani names (Oreopoulos, 2009). These findings consistently demonstrate that names serve as a powerful signal of an applicant's ethnic background, often resulting in biased hiring decisions.

Moreover, name-based discrimination is compounded by gender dynamics. For example, male applicants with Arabic names often face more severe stereotypes and discrimination than their female counterparts, a phenomenon explained by the Outgroup Male Target Hypothesis, which posits that men from ethnic minorities are perceived as greater threats and thus face harsher scrutiny in hiring processes (Araï et al., 2016). This intersection of ethnicity and gender in recruitment discrimination illustrates the complexity of biases that candidates must navigate.

In response to these challenges, Artificial Intelligence (AI) based recruitment technologies have emerged as potential tools to counteract discrimination in recruitment by reducing human biases and promoting fairer hiring outcomes. AI can be utilized at various stages of recruitment, from initial CV screening to candidate assessment, by anonymizing

candidate information and enabling selection based on the relevant criteria. While the potential of AI to reduce discrimination is promising, its ability to fully eliminate bias is still uncertain and heavily debated, especially since biases can be inadvertently encoded into AI algorithms themselves.

This study aims to investigate how candidates who are prone to discrimination — such as those with non-native names or appearances— perceive AI-assisted recruitment processes compared to traditional human-led methods. Specifically, it focuses on whether these candidates view AI as a fairer and more trustworthy tool in comparison to human recruiters in the hiring process. The research also explores whether the use of AI in recruitment influences job preferences and perceived organizational commitment to workforce diversity.

To achieve this, the study addresses the following key research questions:

1. Does a self-perceived non-native appearance of a candidate increase their trust in AI technologies in recruitment processes compared to human recruiters?
2. Are candidates with self-perceived non-native appearances more likely to apply to companies that use AI-assisted recruitment processes?
3. Do candidates perceive companies that utilize AI in recruitment as more committed to diversity and inclusion?

By answering these questions, this study seeks to provide insights into whether AI-assisted recruitment is perceived as a fairer and more inclusive alternative and how this perception affects the behavior of job applicants from diverse backgrounds. Ultimately, the findings aim to inform organizations on the effective integration of AI technologies to enhance diversity and fairness in their recruitment processes.

This study does not investigate whether AI can eradicate discrimination but instead focuses on whether individuals who are prone to discrimination perceive AI as a fairer and more trustworthy tool compared to traditional human-led recruitment methods. Field experiments, such as correspondence tests, consistently demonstrate that candidates from minority backgrounds face disadvantages due to implicit biases held by recruiters (Baert et al., 2022). But are candidates aware of biases that human recruiters might have, and do they trust AI based recruiting more? This research evaluates trust in AI versus human recruiters by measuring the level of trust candidates have in AI-assisted recruitment processes

compared to traditional human-led methods. This includes understanding candidates' perceptions of AI's ability to eliminate bias and their confidence in the fairness of AI-driven decisions.

Furthermore, the study assesses job preferences related to AI recruitment. It explores how candidates' preferences for applying to employers are influenced by the knowledge that these employers use AI in their recruitment processes. The study also aims to determine if candidates perceive AI-using employers as more committed to diversity and inclusion.

Lastly, the study investigates the perceived fairness of AI recruitment. The study examines whether candidates believe that AI can provide a more equitable assessment compared to human recruiters.

The implications of these findings are significant for organizations aiming to attract a more diverse applicant pool. If candidates from minority groups view AI-assisted recruitment as fairer, employers should consider promoting their use of AI in hiring processes. By publicly committing to unbiased hiring, organizations can enhance their employer brand and potentially increase diversity among applicants. Ultimately, if the study shows that individuals susceptible to discrimination favor AI-assisted recruitment, employers can confidently showcase their AI practices as a meaningful step towards attracting diverse candidates and demonstrating a commitment to fair hiring.

By exploring the trust and preferences of job applicants who are susceptible to discrimination, this dissertation aims to provide actionable insights for organizations looking to leverage AI technologies to foster a more inclusive recruitment process. The study highlights the potential for AI to be seen not just as a technological advancement but as a strategic tool for effectively enhancing diversity in the workplace.

The study employs a quantitative research approach, utilizing a web-based survey conducted through the Qualtrics platform. Participants are recruited via the author's social networks, including LinkedIn, Reddit, Instagram, WhatsApp, and Facebook. An invitation link to the survey is shared across these platforms, leading participants to a standardized welcome page that explains the survey's purpose and scope. The survey comprises questions designed to measure various constructs such as non-native appearance, trust towards AI and human recruiters, job preferences, and perceived fairness of AI recruitment. Responses are recorded on a 5-point Likert scale to facilitate quantitative analysis.

The gathered data is analyzed with statistical techniques to detect patterns and correlations. The analysis focuses on testing the study's hypotheses and drawing conclusions about the impact of AI on reducing discrimination in recruitment. The findings of this study are expected to contribute to the understanding of AI's role in promoting diversity and fairness in recruitment.

In summary, this dissertation explores the potential of AI technologies to create a more equitable and inclusive recruitment process. It addresses critical issues related to bias and discrimination in hiring, providing insights into how AI can transform recruitment practices to benefit both organizations and candidates. The ultimate goal is to offer a data-driven perspective that could encourage employers to adopt AI technologies in their recruitment processes, thereby enhancing diversity and inclusion in the workplace.

1.2 Dissertation Structure

The dissertation is structured to provide a comprehensive analysis of the potential of AI in mitigating discrimination during recruitment processes, specifically within the context of CV screening and candidate trust. It begins by outlining the background and objectives, situating the study within the broader context of recruitment biases that have been widely documented. The literature review addresses various forms of discrimination in recruitment, including biases based on visible attributes like race, gender, and perceived ethnicity, and underscores the relevance of these biases in the hiring process.

The empirical section of the dissertation focuses on a quantitative research approach, utilizing a web-based survey to gather data on the perceptions of job applicants who might be vulnerable to discrimination. This approach allows for the systematic collection and analysis of quantifiable data to identify patterns in applicant trust toward AI versus human recruiters, and how these perceptions impact their job application behavior and attitudes toward companies employing AI-assisted recruitment. The study's methodology is elaborated in detail, covering participant recruitment, data collection procedures, and the specific constructs measured, such as trust toward AI and perceived fairness in AI-assisted recruitment processes.

In the results section, the dissertation examines the findings in relation to the formulated hypotheses, which explore the relationship between non-native appearance and trust in AI technologies, intention to apply to companies using AI, and the perceived

commitment of these companies to diversity. The statistical methods used, including linear regression analysis and bootstrapping procedures, are described to validate the robustness of the findings. The discussion section interprets these results in light of the existing literature, highlighting the implications for organizational practices and the potential of AI to foster a more inclusive and diverse workplace.

Finally, the conclusion summarizes the key insights from the study, emphasizing the role of AI as a strategic tool in reducing biases and promoting fairness in recruitment. It also outlines recommendations for organizations on the ethical deployment of AI in hiring processes, the importance of transparency and accountability, and the need for further interdisciplinary research to enhance the understanding and effectiveness of AI in recruitment contexts.

1.3 Hypotheses

This study seeks to examine these impacts, focusing specifically on candidates with non-native appearances. Understanding how AI technologies influence applicants' experiences and attitudes is crucial for organizations aiming to implement these tools effectively and ethically.

Given the potential of AI to standardize and potentially improve the recruitment process, this research aims to investigate several key hypotheses:

H1: A self-perceived non-native appearance of a candidate has a positive effect on their trust in AI technologies in application processes.

H2: A self-perceived non-native appearance of a candidate has a positive effect on the future behavior of these applicants, in the sense that these applicants will be more likely to apply to a company if they know that this company uses AI-supported application processes.

H3: A self-perceived non-native appearance of a candidate has a positive effect on the impression of applicants that companies that rely on AI-supported application processes are also more interested in diversity.

These hypotheses are formulated to explore the relationships between AI-assisted recruitment and various aspects of the applicant experience, including trust in the application process, perceived fairness, perceptions of diversity, and applicant behavior towards companies using AI.

1.4 Significance

In today's dynamic workforce environment, characterized by a growing emphasis on diversity and technological advancement, this study offers valuable insights into the role of AI in recruitment. The significance of this research lies in its examination of how AI can potentially address persistent biases in hiring practices, particularly those affecting individuals with non-native names or appearances.

The findings of this study are particularly relevant in a context where traditional recruitment methods are often criticized for subjective biases. By revealing that candidates who are vulnerable to discrimination view AI-assisted recruitment systems as fairer and more impartial, the study underscores AI's potential to be perceived as an objective alternative to human-led processes. This perception aligns with current trends that prioritize diversity and fairness in organizational practices.

Organizations today are increasingly focused on demonstrating their commitment to diversity and inclusion (Dong, 2021). The study highlights that integrating AI into recruitment processes can help organizations signal their dedication to unbiased practices, thereby attracting a more diverse talent pool. This strategic approach not only broadens the candidate base but also contributes to a more varied and innovative workforce, driven by diverse perspectives and backgrounds.

Furthermore, the research emphasizes the importance of maintaining ethical standards in the deployment of AI. Although AI has the potential to reduce certain biases, it is not immune to them. The study points out the need for ongoing monitoring and refinement of AI systems to ensure they do not inadvertently introduce new biases. Ensuring transparency and accountability in AI deployment is crucial for maintaining trust and achieving fair recruitment outcomes.

Overall, the significance of the study is provided because it investigates how AI can be used to attract more diverse applicants in recruitment. The research contributes to a deeper understanding of how AI can be effectively integrated into recruitment strategies to support diversity and equity. Additionally, it opens pathways for future research to investigate how AI systems can be further optimized to promote fair hiring practices and assess their long-term impact on workforce diversity.

1.5 Scope

This research investigates how AI-assisted recruitment processes influence job preferences and perceptions of fairness among individuals prone to discrimination, with a particular focus on those with non-native appearances or names. The central aim is to explore how AI-driven technologies are perceived in comparison to traditional, human-led recruitment methods, especially by candidates who may be vulnerable to biases based on visible attributes, such as ethnicity or the origin of their name. By examining this intersection between technology and perceived fairness, the study delves into the evolving role of AI in recruitment and its potential to shape candidate behaviors and attitudes toward companies using these systems.

One of the key areas of exploration is the level of trust that job applicants place in AI recruitment versus human recruiters. The study analyzes whether candidates perceive AI as a more objective and unbiased tool for decision-making, particularly in the context of recruitment, where human-led processes are often subject to personal biases. These biases, consciously or unconsciously, tend to surface in traditional hiring methods, influenced by a candidate's name, gender, or ethnicity. AI systems, on the other hand, are expected to focus more on a candidate's qualifications and skills, rather than on such visible attributes, and this research seeks to determine whether candidates indeed believe that AI offers a fairer, more transparent recruitment process.

In addition to trust in AI, the study assesses the extent to which AI technologies influence the job application behavior of candidates, particularly those who have non-native names or appearances. The research investigates whether these candidates are more likely to apply to employers that use AI-driven recruitment tools and how this knowledge affects their overall job-seeking behavior. It looks at whether AI technologies, often promoted as neutral and efficient, encourage job seekers to apply to companies that publicly emphasize their use of AI in recruitment, particularly when these companies are seen as valuing diversity and inclusivity through the use of such technological innovations. This element of the study provides insight into how AI can reshape the preferences and behaviors of job candidates who might otherwise hesitate to engage with traditional recruitment practices due to fear of bias.

The perceived fairness of AI-assisted recruitment is also a critical aspect of this research. It examines whether candidates view the use of AI as a signal of an organization's

commitment to diversity and inclusion. By focusing on the potential of AI to reduce human biases in hiring decisions, the study aims to determine whether candidates interpret the use of AI in recruitment as a reflection of a company's dedication to fostering fairer and more inclusive hiring practices. This perceived fairness is important, as it can influence how job applicants evaluate the organization's values and whether they see AI as a tool that can genuinely enhance diversity within the organization's workforce.

To address these questions, the research employs a quantitative approach. Web-based surveys are distributed across a variety of social media platforms, allowing for a broad and diverse sample of participants. The survey includes questions that measure candidates' trust in AI versus human recruiters, their likelihood of applying to companies that use AI in recruitment, and their perceptions of fairness in AI-driven recruitment processes. This methodology ensures that the study captures a wide range of experiences and attitudes, contributing to a more comprehensive understanding of how AI is perceived in different recruitment contexts.

Although the study primarily focuses on candidates with non-native appearances, it does not extend to other potential sources of discrimination, such as those based on disability or socio-economic background. Furthermore, the research does not analyze the technical workings or specific algorithms of the AI tools being used in recruitment. Instead, it centers on candidates' perceptions and behaviors within the broader context of AI-assisted recruitment, offering insights into how these technologies might be perceived as part of the ongoing effort to create fairer, more inclusive hiring processes.

Having established the context and significance of this study, the following section will delve into the existing body of knowledge on discrimination in recruitment and the potential role of AI in mitigating these biases. By examining previous research and theoretical frameworks, we aim to build a foundation that contributes to the empirical investigation of AI's impact on perceived fairness in recruitment processes.

2. Literature Review

2.1 Diversity at Workplace

In recent years, diversity has gained widespread attention within organizations, as fostering an inclusive environment is seen as essential for promoting collaboration, creativity, and adaptability in today's globalized world. Ethnical diversity in the workplace offers numerous advantages that can positively impact organizational performance and employee well-being. Research indicates that companies with more diverse workforces tend to be more efficient and innovative (Lee et al., 2023). A study on U.S. hospitals found that racial diversity among medical staff was linked to improved operational efficiency, including factors like occupancy rate and manpower productivity (Lee et al., 2023). Furthermore, racial diversity has been associated with enhanced organizational innovation and performance (Nelson & Piatak, 2019). Minority employees in federal government settings have been shown to benefit more from diversity management programs compared to their White counterparts (Nelson & Piatak, 2019). These findings suggest that promoting racial diversity not only boosts innovation and performance but also creates a more supportive environment for minority employees, leading to a more inclusive and productive workplace.

Moreover, workforce racial diversity has been identified as a critical pathway to addressing mental health disparities among different racial groups (Kyere & Fukui, 2022). By fostering a diverse workforce, organizations can create a more supportive and empathic environment for employees from various backgrounds. Additionally, workplace diversity policies, when effectively implemented, have been shown to enhance equity, boost employee performance, and improve overall organizational outcomes (Scarborough et al., 2019). These policies play a crucial role in creating a fair and inclusive workplace where all employees feel valued and supported.

Studies have also highlighted the importance of considering the ethnical composition of the community in which an organization is located when examining the impact of workforce diversity (Roberson et al., 2017). The community context can influence employees' perceptions of diversity climate within the organization. Therefore, organizations need to consider external factors that may shape the experiences of their diverse workforce. Furthermore, the presence of diversity charters and long-term commitment to diversity initiatives have been linked to lower collective turnover rates,

emphasizing the benefits of sustained efforts towards promoting diversity in the workplace (Chapman et al., 2022).

However, challenges related to racial diversity in the workplace persist. Research has shown that racial minorities, such as Migrant Black African Youths (MBAYs), continue to face racial microaggressions despite legal protections against overt forms of racism (Kalemba, 2022). This highlights the need for organizations to address subtle forms of discrimination and create a more inclusive environment for all employees. Additionally, the lack of accountability in institutions regarding racial diversity can perpetuate ambivalence about race and racism in the labor market (Joseph, 2020). It is essential for organizations to actively challenge such attitudes and promote a culture of respect and equality.

In conclusion, the advantages of racial diversity in the workplace are evident, ranging from improved operational efficiency and innovation to enhanced employee well-being and organizational performance. By embracing diversity, organizations can create a more inclusive and equitable environment that benefits employees from all backgrounds. Additionally, it is crucial to address challenges such as racial microaggressions and institutional accountability to truly harness the potential benefits of a diverse workforce.

2.2 Discrimination in Recruiting

Discrimination in recruiting encompasses a range of biases and barriers that affect the fairness and equity of the hiring process across diverse demographics. This chapter explores various forms of discrimination encountered in recruitment practices and highlights the importance of addressing these issues to promote inclusivity and diversity in the workforce.

One type of discrimination in recruitment often manifests in gender biases, where studies consistently show preferential treatment towards male candidates in various stages of the hiring process (Folke et al., 2020). It reflects recruiters' tendencies to evaluate candidates based on stereotypical notions of suitability for certain roles, disadvantaging women and perpetuating gender disparities (Folke et al., 2017).

In addition to gender, discrimination based on sexual orientation and gender identity poses significant challenges in recruitment. LGBTQ+ individuals may encounter overt discrimination during interviews or encounter barriers rooted in organizational practices that

fail to accommodate diverse identities (Maji et al., 2023). These biases not only undermine candidates' opportunities but also impact workplace culture and organizational inclusivity.

Ageism remains prevalent in recruitment practices, exacerbated by the increasing use of AI-driven hiring technologies. Older applicants often face prejudices that undervalue their skills and experience, reflecting broader societal biases against aging (Stypińska, 2022). Ethnic discrimination further compounds these challenges, affecting candidates from marginalized racial and ethnic backgrounds who confront systemic barriers and stereotypes in their job search (Cenac et al., 2019).

Language proficiency also emerges as a discriminatory factor, particularly affecting non-native speakers and immigrants. Language barriers can limit job prospects despite qualifications, highlighting the need for inclusive recruitment strategies that value linguistic diversity (Cheng et al., 2021).

Systemic discrimination in recruitment stems from organizational cultures, managerial directives, and implicit biases that shape decision-making processes (Kroll et al., 2021). Data-driven recruitment methods, while intended to reduce biases, must be carefully calibrated to avoid reinforcing existing prejudices encoded in historical data (Schmalenbach & Laumer, 2020).

Broader societal influences, such as cultural biases against migrants and refugees, further complicate recruitment practices, perpetuating inequities in access to employment opportunities (Boamah & Salahshour, 2021). International displacement and migration add layers of complexity, amplifying discriminatory practices rooted in xenophobia and structural inequalities (Orr et al., 2019).

Research indicates that addressing discrimination in recruitment might require a multifaceted approach that includes implementing anonymous resume screening and outsourcing recruitment processes to unbiased third parties (Lacroux & Martin-Lacroux, 2019; Berson et al., 2020). These strategies aim to promote fairer evaluation of candidates based on qualifications while mitigating biases derived from personal characteristics.

In conclusion, discrimination in recruiting encompasses various forms of bias that hinder equitable access to employment opportunities. Recognizing and addressing these biases through targeted interventions and inclusive practices is essential for creating fairer and more inclusive recruitment processes. By tackling discrimination at its roots,

organizations can build diverse and resilient workforces that reflect the richness of talent across diverse demographics.

This thesis focuses specifically on discrimination in CV screening, with a particular emphasis on visible aspects such as age, gender, self-proclaimed nativeness of names, and self-proclaimed nativeness of appearance. These factors are chosen because they are directly discernible from CVs and impact initial candidate evaluations. Aspects like sexuality, socio-economic status and disability, which are not typically visible in CVs, fall outside the scope of this study focused on CV screening processes. By concentrating on visible attributes, the thesis aims to investigate how biases related to age, gender, and nativeness of name and look influence recruitment decisions and to propose strategies for mitigating these biases to foster fairer hiring practices.

2.3 AI in Recruiting

Artificial Intelligence has profoundly transformed the recruitment landscape, introducing a range of innovative solutions designed to enhance various stages of the hiring process. The integration of AI technologies in recruiting has become increasingly prevalent across industries, driven by the goal of improving efficiency, accuracy, and overall effectiveness (Na, 2024). AI tools, such as chatbots, have revolutionized tasks like candidate screening and interviewing, automating repetitive processes that traditionally consumed significant time and resources for recruiters (Na, 2024). This shift towards AI-enabled recruitment reflects a broader trend towards leveraging technology to enhance the speed and precision of candidate selection while addressing the biases inherent in traditional methods (Odili, 2024).

One of the key benefits of AI in recruitment is its capability to quickly and accurately process and analyze large volumes of data. AI harnesses big data using sophisticated machine learning algorithms to evaluate resumes, match candidates with job requirements, and support decision-making during interviews (Na, 2024). By automating these critical tasks, AI not only accelerates the recruitment process but also ensures a more objective and standardized assessment of candidates based on predefined criteria (Na, 2024). This data-driven approach is stated to significantly enhance efficiency of the hiring process, enabling organizations to identify the most suitable candidates more quickly and effectively, thereby

improving the quality of hires and contributing to better organizational performance (Odili, 2024).

Moreover, AI contributes to increasing the transparency and fairness of the recruitment process. Transparency, complementarity of AI tools, and a sense of control are pivotal factors influencing the acceptance and trust in AI-based recruitment technologies (Laurim et al., 2021). AI systems provide clear insights into the selection criteria and decision-making processes, thereby mitigating the impact of human biases and fostering a more equitable hiring environment (Laurim et al., 2021). This enhanced transparency benefits candidates by offering a clearer understanding of how decisions are made, which in turn builds trust in the recruitment system and ensures that the process is perceived as fair and unbiased (Laurim et al., 2021).

Another significant impact of AI in recruitment is its potential to reduce human prejudices and biases in employment decisions. AI tools are designed to support various stages of recruitment, from job search and application screening to assessment and coordination, helping to eliminate subjective judgments that might lead to discriminatory practices (Chen, 2022). By relying on data-driven algorithms rather than human intuition, AI can minimize the impact of unconscious biases, which can result in a more inclusive and diverse workforce (Chen, 2022). This capacity for bias reduction is particularly valuable in creating a fairer hiring process and promoting diversity within organizations.

The adoption of AI also enhances the efficiency and effectiveness of the hiring process. Organizations utilizing AI technologies can access a broader talent pool and expedite recruitment and selection procedures (Kshetri, 2021). AI streamlines tasks such as candidate sourcing, pre-screening, and engagement, allowing recruiters to focus more on strategic aspects of talent acquisition and less on administrative tasks (Hewage, 2023). This increase in efficiency not only saves time and resources but also enables organizations to respond more promptly to talent needs and market demands, ultimately enhancing their competitive edge (Hewage, 2023).

This thesis will focus on the aspect of AI's potential to reduce discrimination in recruiting, particularly during the CV screening process. Traditional CV screening can be prone to unconscious biases, where factors such as the candidate's name, gender, or ethnic background might influence the recruiter's decisions. AI algorithms, when properly designed and trained, can help mitigate these biases by focusing solely on the qualifications

and experience relevant to the job. By anonymizing CVs and applying data-driven criteria to evaluate candidates, AI can foster a more equitable recruitment process, ensuring that all applicants are assessed on their merits rather than subjective factors. This approach could lead to a more diverse and inclusive workforce, benefiting organizations in the long term.

Despite the numerous advantages of AI in recruitment, ethical considerations are paramount. The use of AI in recruitment raises concerns about ensuring fairness, accountability, and minimizing the potential for discrimination. Organizations must take care to design and implement AI systems in ways that actively address ethical concerns to prevent biases and protect candidates' rights throughout the recruitment process. Adopting ethical guidelines and creating frameworks that oversee AI application in hiring practices are crucial steps to responsibly manage the risks posed by algorithmic decision-making. In addition to these ethical concerns, AI in recruitment presents several disadvantages. One major issue is algorithmic bias, where AI may reinforce existing biases from training data, potentially undermining diversity efforts. Such bias can arise when training data reflects societal prejudices or inequalities. If the data predominantly represents certain groups or perpetuates historical patterns of exclusion, the AI may unintentionally adopt and replicate these biases. For example, Amazon had to discontinue using an AI-based recruiting tool because it favored candidates whose resumes included keywords more commonly found on men's resumes (Iriondo, 2020). Addressing these challenges requires a balanced approach that integrates ethical considerations with practical recruitment realities, ensuring AI enhances rather than replaces human judgment and remains rigorously controlled.

In conclusion, the integration of AI into recruitment practices has brought about significant advancements in how organizations attract, assess, and select candidates. Leveraging AI technologies enhances the efficiency, transparency, and fairness of recruitment processes, while reducing biases and improving decision-making accuracy. However, it is imperative to address ethical considerations to ensure that AI is used responsibly and in compliance with legal and moral standards. As AI technology continues to evolve and its role in recruitment expands, it is crucial to balance innovation with a commitment to fairness and accountability, ensuring that advancements in talent acquisition do not come at the expense of ethical principles.

The literature reviewed provides a comprehensive understanding of the challenges and opportunities associated with discrimination in recruitment and the adoption of AI technologies. Building upon this theoretical foundation, the subsequent section will outline the research methodology employed in this study, detailing the specific approach taken to empirically investigate how AI is perceived in recruitment processes by candidates who are vulnerable to discrimination.

3. Empirical Investigation

3.1 Objectives and Methodology

The objective of the study was to investigate the effects of an applicant's non-native appearance on the preference for different forms of application. In order to investigate the specific effects, a web-based, quantitative study was chosen. Quantitative research is a systematic, empirical research approach in the social sciences that aims to measure and statistically analyze phenomena to identify patterns. In contrast to qualitative research, this approach is characterized by its ability to collect and analyze quantifiable data.

The survey method chosen was an online survey using the Qualtrics platform (<https://www.qualtrics.com/de/>). One advantage of a survey via digital platforms is that it is independent of time and place. This means that the people addressed do not have to be contacted personally and the questionnaire can be completed at any location. Another advantage of the online survey is that the data collected is directly available in digital form for evaluation. The digital processing avoids input errors on the researcher's side. On the other hand, one disadvantage of online surveys is the potential for sampling bias, as not all individuals may have equal access to or familiarity with digital platforms.

3.2 Procedure

The web-based nature of the study enabled the study participants to be approached via digital channels. The author's social networks, such as LinkedIn, Reddit, Instagram, WhatsApp and Facebook, were primarily used for this purpose. Participants were provided with an anonymous invitation link for the acquisition process. The link initially led to a standardized welcome page on which the purpose of the survey was explained. At this point, participants were explicitly asked to consent. A brief explanation of AI in recruiting was provided in the appendix. The scales were then presented on successive pages of the online questionnaire in the order explained below. Participation in the survey was possible in a time frame of approximately two months, from 06.05.2024 to 04.07.2024.

3.3 Measures

3.3.1 Non-native Appearance

The study focused on the non-native appearance of the test subjects. Two factors in particular play a central role in application processes: the name and the visual appearance. The name appears, for example, in the cover letter, CV or email address. The visual appearance is conveyed by the (sometimes obligatory) picture in the CV. On this basis, the non-native appearance was measured on the basis of the assessment that one's own name sounds non-native and that one's own visual appearance is perceived to be non-native. Here and below, the respondents' answers were recorded on a 5-point Likert scale (1 = disagree; 5 = agree). Table 1 summarizes all constructs.

3.3.2 Trust towards AI in Application Processes

Four items were formulated to measure confidence in AI tools in application processes. First, respondents were asked about their assessment of whether AI is able to eliminate bias in application processes. This was followed by questions on whether they trust AI in application processes, whether they believe that demographic characteristics (e.g., name) play a key role in AI-supported application processes and whether they have concerns about the use of AI in application processes due to bias (see Table 1 for a complete overview).

3.3.3 Trust towards Humans in Application Processes

In order to record applicants' trust in humans in application processes, three of the items previously formulated to record attitudes towards AI were reformulated. The questions related to whether they trust humans in application processes, whether they believe that demographic characteristics (e.g., name) play a key role in application processes and whether they have concerns about bias towards human behavior in application processes (see Table 1 for a complete overview).

3.3.4 Future Behavior and Attitude towards AI in Application Processes

In addition to the respondents' basic trust in AI in application processes, it was also important how the respondents would assess their future behavior if they knew that companies were using AI in application processes. The items used were: "Imagine you are on the lookout for a new job. Would you be more likely to apply to a job, knowing AI-assisted recruiting is used?" and "Do you think companies using AI in recruiting care more about diversity than companies that don't use AI in recruiting?".

3.3.5 Demographic and Additional Information

In addition to the central variables, further supplementary information was collected from the respondents. These included a basic question as to whether the respondents knew what is meant by the use of AI in application processes. This was followed by questions on whether respondents had already been discriminated against in application processes and whether they were concerned that this could happen in the future. Finally, the subjects' age, gender and nationality were recorded as demographic information.

3.4 Sample

A total of 263 participants were recruited during the specified survey period. However, the data was cleaned by removing some test subjects from this data set as their responses were incomplete ($n = 4$). This procedure resulted in a final sample of 259 test subjects. Of these, 53.3 % were female ($n = 138$) and 46.7 % were male ($n = 121$). The average age was 34.42 years (SD [standard deviation] = 13.315 years). Furthermore, 89.6% ($n = 232$) participants indicated to be Europeans. More than half of the participants (59.1%; $n = 153$) said to come from Germany whereas 40.9% ($n = 106$) reported to come from another country. In total 11 participants reported to have two citizenships.

With regard to knowledge about the use of AI in application processes, it should be noted that the test subjects are very experienced and/or understood the brief explanation at the beginning of the survey with a mean value of 4.77 ($SD = .480$). The negative experiences with regard to discrimination in application processes are somewhat lower (Mean (M) = 3.06; $SD = 1.501$). Concerns about being discriminated against in application processes in the future are even lower ($M = 2.17$; $SD = 1.178$).

Respondents who stated that they were Germans indicated to a lower extent that they had a perceived non-native appearance ($M_{\text{Non-German}} = 3.160$; $SD = 1.115$; $M_{\text{German}} = 2.033$; $SD = 1.246$; 95% CI = .830 to 1.425; $t(209.205) = 7.468$; $p < .05$).

With a clear methodological framework established, the next section presents the results of the empirical investigation. Here, the data collected through the web-based survey will be analyzed to evaluate the proposed hypotheses and provide insights into the perceived effectiveness and fairness of AI-assisted recruitment.

4. Results

4.1 Procedure for Testing the Hypotheses

SPSS v.27.0.1 was used to analyze the data. The basic question was about the effects that a non-native appearance of applicants has on their behavior and attitude towards AI in application processes. Statistically, this is based on the fact that an independent variable (predictor) influences a dependent variable (criterion) (Saunders, Lewis, & Thornhill, 2007, S. 52). A linear regression analysis can be used to test this. The hypotheses developed were tested using two criteria described below. The first criterion was a path coefficient that had a potentially positive sign and should exceed a strength of 0.1 so that a sufficiently large influence of the independent variable on the dependent variable could be assumed (Chin, 1998, p. 320). It was also relevant for the review whether the result could reach a statistically significant level. A 95% confidence interval is usually used here (i.e., $p < 0.05$).

A common problem in empirical research is non-normally distributed data, which is, however, assumed, especially with regard to inferential statistical test steps (Hayes, 2017, p. 97). In the case of this study, inferential statistical calculations were therefore carried out on the basis of a bootstrapping procedure (Wood, 2005, p. 89). This method is based on the repeated composition of new samples from the existing sample. Due to its repetitive composition of the sample, the bootstrapping method is comparatively less susceptible to a violation of the normal distribution and is also well suited for use with small sample sizes. For the calculations, 5,000 new samples were compiled.

Another important parameter when analyzing data using regression analysis is the coefficient of determination (R^2) (Hair, Babin, Anderson, & Black, 2018, p. 74). This is an indicator of the proportion to which the variance of a dependent construct (in this case, a non-native appearance and different recruiting measures) is determined by one or more independent variables in a regression analysis. The higher the value, the higher the explained variance. There are different opinions in literature as to which threshold values the coefficient of determination must correspond to. The decisive factor here is the research context in particular, as well as the size of the underlying sample. For example, Herrmann, Huber, and Kressmann (2006, p. 61) suggest a limit value of 0.30, which would allow a prediction of the observed variable if exceeded. However, it is often argued that low R^2 values can also be helpful, especially in combination with the path coefficients under consideration.

4.2 Measurement Model

Before the hypotheses were tested, the results were examined with regard to various reliability and validity indicators. These four indicators were: Indicator reliability, internal consistency, convergent validity and discriminant validity.

4.2.1 Indicator Reliability

The first step in reviewing the measurement theory specifications is to check the so-called indicator reliability (Hair, Hult, Ringle, & Sarstedt, 2014, p. 423). Indicator reliability tests the ability of the indicators used to measure a specific construct. Indicator reliability is tested using the factor loadings. In this study, this is done by means of confirmatory factor analysis, as concrete indicator compositions can already be assumed. The critical value here is generally .70 (Hulland, 1999, p. 195). However, Chin (1998, p. 320) also points out that this limit should not be regarded as absolute if other indicators of a construct can act as additional support. Table 1 shows that all factor loadings were equal to or greater than .775.

4.2.2 Internal Consistency

Internal consistency tests the extent to which the indicators of a construct correlate with each other, i.e., are related to each other. This step is intended to ensure that the results are reliable without repeating the measurement and that reproducible results can, therefore, be expected if the same measurement method is used again. The best-known test parameter here is Cronbach's alpha. A central weakness of this is the assumption that all indicators are equally reliable. However, this can be called into question if factor loadings are different but still lie within the tolerance limits outlined above. If the factor loadings of a construct are different but still within the tolerance range, a test of internal consistency using Cronbach's alpha can lead to problems. For this reason, the testing of internal consistency using Cronbach's alpha has been increasingly criticized in the recent past. As a result, composite reliability is increasingly being used as a parameter, and the threshold value to be exceeded is defined as .70 (Bagozzi & Yi, 1988, p. 90). As can be seen in Table 1, all values in the entire sample exceed this limit ($\geq .884$). It should, therefore, be noted that internally consistent results can be confirmed.

4.2.3 Convergent Validity

Convergent validity provides information on the extent to which the underlying measured construct is able to explain the variance of the indicators used to measure this construct (Bagozzi & Yi, 1988, p. 90). The parameter here is the so-called average variance extracted (AVE). It is assumed that values greater than .50 allow the conclusion that more variance is explained than remains unexplained by measurement errors (Chin, 1998, p. 321). As can be seen in Table 1, the values of all included latent constructs were equal to or above .676. Convergence validity could thus be confirmed for the present model.

4.2.4 Discriminant Validity

Discriminant validity testing examines whether the indicators used to measure a construct actually measure the intended construct or another construct implied in the model (Fornell & Larcker, 1981, p. 39). As the measuring instrument used in each case is used in a modified application, this procedure is intended to check again whether the scales used functioned as intended. Discriminant validity is to be understood as the antithesis of indicator reliability, as the intention is for the indicators to load as high as possible on the intended construct and as low as possible on the constructs that they do not measure. The most frequently used method for checking discriminant validity is to look at the previously addressed factor loadings. According to the method of so-called cross-loadings, discriminant validity can be assumed if the loading of an indicator on the intended factor exceeds the loading on all other factors. The data shows that in the entire sample, each indicator loaded highest on the intended construct (see Table 2). Cross loadings, therefore, did not represent a complication.

Table 1*Overview of Items and Measurement Evaluation*

	Factor loading	CA	CR	AVE
<i>Perceived non-native appearance</i>		.884	.946	.897
I think I look non-native to the country I live in.	.947			
I think my name sounds non-native to the country I live in.	.947			
<i>Trust in AI in application processes</i>		.905	.934	.778
I believe that AI eliminates bias in recruiting processes.	.854			
I trust AI-assisted recruitment tools to make fair and unbiased decisions.	.903			
I think my demographic characteristics influence AI-assisted recruitment decisions, although they are unimportant for the job itself.	.870			
I am concerned about potential bias in AI-algorithms used for recruiting.	.901			
<i>Trust in humans in application processes</i>		.736	.862	.676
I am concerned about potential bias in human recruiters.	.829			
I trust human recruiters to make fair and unbiased decisions.	.775			
I think my demographic characteristics influence human recruiters in their decision, although they are unimportant for the job itself.	.861			
<i>Intention to apply</i>		-	-	-
Imagine you are on the lookout for a new job. Would you be more likely to apply to a job, knowing AI-assisted recruiting is used?	-			
<i>Perceived importance of diversity</i>		-	-	-
Do you think companies using AI in recruiting care more about diversity than companies that don't use AI in recruiting?	-			
Note: CA = Cronbach's alpha; CR = composite reliability; AVE = average variance extracted				

Table 2*Cross Loadings*

	Trust in AI in application processes	Trust in humans in application processes	Perceived non-native appearance
<i>Perceived non-native appearance</i>			
I think I look non-native to the country I live in.	.335	-.198	.851
I think my name sounds non-native to the country I live in.	.224	-.124	.901
<i>Trust in AI in application processes</i>			
I believe that AI eliminates bias in recruiting processes.	.881	-.112	.081
I trust AI-assisted recruitment tools to make fair and unbiased decisions.	.848	-.275	.196
I think my demographic characteristics influence AI-assisted recruitment decisions, although they are unimportant for the job itself.	.761	-.153	.386
I am concerned about potential bias in AI-algorithms used for recruiting.	.808	-.154	.367
<i>Trust in humans in application processes</i>			
I am concerned about potential bias in human recruiters.	-.129	.848	-.034
I trust human recruiters to make fair and unbiased decisions.	-.237	.652	-.334
I think my demographic characteristics influence human recruiters in their decision, although they are unimportant for the job itself.	-.135	.857	-.106

4.3 Hypothesis Testing

As aforementioned, the previously established hypotheses were evaluated using the path coefficients and their significance (95% confidence interval). In addition to the evaluation of significance in regression-based analysis methods, some authors suggest a cut-off value of at least .10 for the path coefficients to be tested.

In H1, it was assumed that a perceived non-native appearance of applicants has a positive effect on trust in AI technologies in application processes. This hypothesis can be supported, as the data revealed a significant positive effect ($\beta = .443$; $p < .001$). According to the expectations, a perceived non-native appearance therefore has a positive effect on trust

in AI technologies in application processes. In contrast to this, the data also show that a perceived non-native appearance simultaneously reduces trust in humans in application processes ($\beta = -.290$; $p < .001$).

In H2, it was assumed that a perceived non-native appearance of applicants will have a positive effect on the future behavior of these applicants, in the sense that these applicants will be more likely to apply to a company if they know that this company uses AI-supported application processes. This hypothesis can also be supported due a significantly positive effect ($\beta = .469$; $p < .001$).

Finally, it was assumed in H3 that a perceived non-native appearance of applicants has a positive effect on the impression of these applicants that companies that rely on AI-supported application processes are also more interested in diversity. The last hypothesis can also be supported due to the path being significantly positive ($\beta = .445$; $p < .001$). All path coefficients and significances, including all included control paths, are summarized in Table 2.

Table 3

Path Coefficients of Structural Model

	Standardized coefficient	Standard deviation	T-statistics
<i>Paths</i>			
<i>Main effects</i>			
Perceived non-native appearance → trust in AI in application processes	.443	.058	7.908***
Perceived non-native appearance → intention to apply	.469	.056	8.524***
Perceived non-native appearance → perceived importance of diversity	.445	.054	7.967***
<i>Control effect</i>			
Perceived non-native appearance → trust in humans in application processes	-.290	.039	4.852***
<i>Coefficients of determination</i>			
Trust in AI in application processes	.193		
Intention to apply	.217		
Perceived importance of diversity	.195		
Trust in humans in application processes	.080		
Note: * significant for $p < .05$; ** significant for $p < .01$; *** significant for $p < .001$			

4.4 Additional Analyses

Further analyses were carried out in order to be able to check the possible effect of the demographic characteristics of the participants.

4.4.1 Possible Age Effects

The first step was to check whether the age of the test subjects has an effect on the extent to which a non-native appearance affects attitudes and behavior. This is referred to as a moderation effect (Hair et al., 2014, p. 123). Due to the metric scaling of both the independent and the moderating variable, the approach of a so-called interaction term was chosen with regard to the possible moderation effects (Hair et al., 2014, p. 52). For this purpose, the variables relevant for moderation (independent and moderating) were multiplied with each other in SPSS and subsequently also included as independent variables in the multiple linear regression analysis. The calculations were then carried out for all the effects described above as part of the hypothesis testing. The results here show that none of the interaction effects reached a statistically significant level so it can be assumed that age has no moderating effect on the relationships investigated (see Table 4 for a complete presentation of all investigated effects).

4.4.2 Possible Gender Effects

Unlike age, gender was scaled dichotomously (1 = male; 2 = female). For this reason, it made sense to examine the entire sample again separately for the male and female subsamples to investigate possible differences between the genders and to calculate the regression analysis separately for the two subsamples. As can be seen in the following table (see Table 5), there are no obvious differences between the two subsamples of male and female participants in terms of path coefficients and significance. It can, therefore, also be assumed that gender has no moderating influence on the relationships investigated.

Table 4*Overview of Calculated Interaction Effects Models*

	Standardized coefficient	Standard deviation	T-statistics
Model 1: Effect of non-native appearance on trust in AI in application processes moderated by age			
<i>Main effects</i>			
Perceived non-native appearance → trust in AI in application processes	.386	.005	1.714
Perceived non-native appearance x age → trust in AI in application processes	.000	.007	.058
Age → trust in AI in application processes	-.027	.021	1.306
<i>R</i> ² Trust in AI in application processes	.197		
Model 2: Effect of non-native appearance on trust in humans in application processes moderated by age			
<i>Main effects</i>			
Perceived non-native appearance → trust in humans in application processes	-.155	.145	1.655
Perceived non-native appearance x age → trust in humans in application processes	.000	.004	.953
Age → trust in humans in application processes	.017	.013	1.277
<i>R</i> ² Trust in humans in application processes	.139		
Model 3: Effect of non-native appearance on intention to apply moderated by age			
<i>Main effects</i>			
Perceived non-native appearance → intention to apply	.652	.207	3.144**
Perceived non-native appearance x age → intention to apply	-.005	.006	.843
Age → intention to apply	-.025	.019	1.324
<i>R</i> ² intention to apply	.259		
Model 4: Effect of non-native appearance on perceived importance of diversity moderated by age			
<i>Main effects</i>			
Perceived non-native appearance → perceived importance of diversity	.510	.224	2.281*
Perceived non-native appearance x age → perceived importance of diversity	.003	.007	.684
Age → perceived importance of diversity	-.018	.020	.861
<i>R</i> ² perceived importance of diversity	.185		
Note: * significant for p < .05; ** significant for p < .01; *** significant for p < .001			

Table 5*Overview of Split Sample Evaluation (Male/ Female)*

	Male subsample			Female subsample		
	Standardized coefficient	Standard deviation	T-statistics	Standardized coefficient	Standard deviation	T-statistics
<i>Paths</i>						
<i>Main effects</i>						
Perceived non-native appearance → trust in AI in application processes	.519	.083	6.617***	.375	.083	4.697***
Perceived non-native appearance → intention to apply	.440	.086	5.537***	.495	.075	6.647***
Perceived non-native appearance → perceived importance of diversity	.476	.074	5.901***	.419	.080	5.385***
<i>Control effect</i>						
Perceived non-native appearance → trust in humans in application processes	-.336	.057	3.896***	-.268	.054	3.245**
<i>Coefficients of determination</i>						
Trust in AI in application processes	.263			.134		
Intention to apply	.187			.240		
Perceived importance of diversity	.220			.170		
Trust in humans in application processes	.106			.065		

Note: * significant for $p < .05$; ** significant for $p < .01$; *** significant for $p < .001$

The results provide initial evidence supporting the proposed hypotheses and highlight key relationships between perceived non-native appearance and trust in AI-assisted recruitment processes. The following section will discuss these findings in greater detail, interpreting their significance for practical and theoretical implications for AI adoption in recruitment.

5. Discussion

5.1 Implications

The findings of this study offer valuable insights into the implications of integrating AI in recruitment processes, particularly in relation to candidates with non-native appearances. These implications span practical applications, candidate experiences, and avenues for future research, with an emphasis on perceived fairness and the potential for AI to influence organizational diversity.

The study's results suggest that candidates with non-native appearances perceive AI-assisted recruitment processes as fairer compared to traditional methods. This perception has several practical implications for organizations seeking to enhance their diversity and inclusion efforts. By integrating AI into their recruitment strategies, organizations can foster a more inclusive environment that appeals to a broader range of candidates. This perception of fairness is crucial in attracting talent from diverse backgrounds who might otherwise feel disadvantaged and/or discouraged by conventional recruitment practices.

Organizations can also leverage the positive perception of AI to strengthen their employer brand. Employers known for using advanced and fair recruitment technologies may be more attractive to top talent, particularly those from diverse backgrounds. This can lead to a competitive advantage in the talent market, as candidates might be more likely to apply to organizations perceived as progressive, meritocratic and committed to fairness. Perceived progressiveness in the application process could, from the candidate's perspective, suggest that the employer is similarly progressive in other areas of its operations.

The study highlights that candidates with non-native appearances are more likely to trust and apply to organizations that use AI-supported recruitment processes. This finding underscores the potential of AI to create a candidate experience that is perceived to be more equitable. By providing a standardized and impartial assessment, AI can help candidates feel that they are being evaluated based on their merits rather than their appearance or background. This can significantly enhance their trust in the recruitment process and in the organization itself.

Furthermore, employers being completely transparent about their usage of AI-based recruitment tools could alleviate some of the anxiety and uncertainty candidates may feel about traditional hiring processes. Candidates can be reassured that AI follows predefined criteria and processes, ensuring that all applicants are assessed in the same manner, if the

processes are being made transparent. This consistency can lead to a more positive candidate experience, as individuals feel that the process is fair and unbiased.

However, the findings also highlight the need to consider demographic factors such as age and gender. Although the study found no significant moderating effects of age on the relationship between non-native appearance and trust in AI, and no major differences in perceptions between male and female participants, these results still underscore the importance of understanding demographic nuances in the adoption of AI in recruitment. The absence of significant differences suggests that AI technologies may offer a more universal perception of fairness across age and gender groups, potentially contributing to more inclusive hiring practices. However, future research should further explore these dimensions to better understand how different demographic groups interact with and perceive AI-assisted recruitment processes.

5.2 Limitations

While this study provides important insights into the potential of AI-assisted recruitment processes to being perceived as promoting fairness and inclusivity, several limitations must be considered when interpreting its findings. These limitations relate to the study's methodology, sample characteristics, and the broader applicability of its results.

First, the study's reliance on an online survey distributed through social networks such as LinkedIn, Reddit, Instagram, WhatsApp, and Facebook may introduce selection bias. Participants who are more active on these platforms, or who have stronger opinions about AI in recruitment, may be overrepresented, potentially limiting the diversity of viewpoints captured. Moreover, the convenience sampling method used may not adequately represent the broader population of job seekers, especially those who are less familiar with digital platforms or who may be excluded due to socio-economic or technological barriers.

Second, the sample size of 259 participants, while sufficient for initial insights, is relatively small, which constrains the generalizability of the findings. A larger and more diverse sample would allow for a more robust understanding of the various perspectives on AI in recruitment and enable more definitive conclusions about the broader applicability of the results.

Third, the research focuses specifically on job applicants with non-native appearances, which, while central to the study's objectives, limits the extent to which the findings can be generalized to other demographic groups or regions. Additionally, the survey questions did not distinguish between different types of non-native appearances, or the varying societal stereotypes associated with them. For example, individuals of Asian descent might indicate that they do not look native to the country they live in, yet they might benefit from favorable stereotypes, such as being perceived as intelligent or hardworking (Ruiz et al., 2024). These positive biases could lead to different recruitment experiences compared to other groups that are more negatively stereotyped. The study does not account for these nuances, potentially oversimplifying the relationship between non-native appearance and experiences of discrimination in recruitment.

Moreover, the research primarily examines discrimination based on visible attributes, such as name and appearance, which are easily discernible in CVs. Other forms of discrimination, such as those based on sexual orientation, disability, political orientation or socioeconomic status, which are not typically visible in CVs, fall outside the scope of this study. This focus limits the comprehensiveness of the findings concerning discrimination in recruitment, as it does not consider the full spectrum of biases that may affect candidates in the hiring process.

Furthermore, the effectiveness and fairness of AI tools in recruitment can vary significantly depending on the specific algorithms, data sets, and platforms used by different organizations. This study does not account for these variations, meaning that the findings may not fully reflect the diverse landscape of AI applications in recruitment. Consequently, the conclusions drawn about AI's potential to reduce bias are context-dependent and may not apply universally across all AI-assisted recruitment systems.

Additionally, the study's use of self-reported data introduces potential biases, such as social desirability bias, where participants may offer responses, they think are expected or favorable, rather than accurately representing their true experiences or opinions. This limitation can affect the reliability of the findings, particularly in sensitive areas such as perceived discrimination and trust.

In conclusion, while this study offers valuable contributions to understanding how AI technologies are perceived in recruitment, these limitations should be carefully considered. By addressing these limitations, subsequent studies can provide a more nuanced

and complete picture of AI's potential to create fairer and more inclusive recruitment processes.

Acknowledging these limitations paves the way for a set of targeted recommendations for practical applications. The following section will offer suggestions for how organizations can ethically and effectively integrate AI into their recruitment processes, ensuring that these technologies are used to their fullest potential to promote fairness and diversity.

5.3 Future Research

The study opens several avenues for future research. First, there is a need to explore the long-term impact of AI-assisted recruitment on organizational diversity and inclusion. While the current study provides initial evidence that candidates perceive AI as fairer, further research could investigate how these perceptions translate into actual hiring outcomes and workforce composition over time.

Second, future research could delve into the specific features of AI systems that contribute to the positive perceptions observed in this study. Understanding which aspects of AI-supported recruitment (e.g., anonymized applications, algorithmic decision-making, automated feedback) are most effective in enhancing perceptions of fairness and trust can help organizations design better AI systems.

Additionally, research could examine the interplay between AI and human recruiters. While AI can handle initial screening and assessment, the role of human judgment remains critical in the final stages of recruitment. Investigating how AI and human recruiters can work together to create a more effective and fair recruitment process could yield valuable insights for organizations.

Future research should delve into the ethical considerations surrounding the use of AI in recruitment. While AI offers the potential to reduce biases, it is still susceptible to them due to the fact that algorithms are human-designed and can inadvertently replicate societal biases if not properly managed. Studies could explore the effectiveness of different approaches to monitoring and auditing AI systems to ensure they function as intended without perpetuating discrimination.

Additionally, further research is needed to explore the role of transparency and accountability in fostering trust in AI-assisted recruitment. Investigating how organizations

can effectively communicate the workings of their AI systems, the criteria used in evaluations, and the measures taken to ensure fairness could provide valuable insights. Future studies could also examine the impact of providing candidates with clear explanations and opportunities to appeal AI-driven decisions on overall trust in these processes.

In conclusion, the integration of AI in recruitment processes presents significant opportunities for enhancing perceived fairness, efficiency, and candidate experience. The findings of this study suggest that AI can positively influence candidates' trust and willingness to apply, particularly among those with non-native appearances. However, we must be mindful of the ethical implications and ensure their AI systems are transparent, accountable, and continuously monitored. Future research should continue to explore the long-term impacts and specific features of AI in recruitment to fully harness its potential for creating more equitable and effective hiring practices.

While the discussion has illuminated the broader implications of AI-assisted recruitment, it is also crucial to recognize the limitations of the current study and the areas that require further investigation. The next section will address these limitations, providing a critical assessment of the study's scope and methodology to guide future research in this evolving field.

5.4 Recommendations

The study's findings suggest several recommendations for practical applications in the field of AI-assisted recruitment. These recommendations are designed to build on the insights gained from the current research and to enhance the effectiveness and fairness of recruitment processes.

Organizations should consider integrating AI into their recruitment strategies to enhance fairness and efficiency. The study's findings indicate that candidates with non-native appearances perceive AI as a fairer tool for recruitment, which can help organizations attract a more diverse pool of candidates. By using AI to automate initial screening processes, companies can reduce the potential for human biases and ensure a more objective evaluation of candidates' qualifications. This approach not only improves the efficiency of the recruitment process but also enhances the candidate experience by providing quicker responses and more transparent evaluations.

However, organizations must also remain vigilant about the ethical implications of using AI in recruitment. It is essential to continuously monitor and audit AI systems to ensure they do not inadvertently perpetuate existing biases. Transparency and accountability are key to maintaining trust in AI-assisted recruitment processes. Organizations should be transparent about how their AI systems operate, the criteria used for evaluations, and the measures taken to ensure fairness. Providing candidates with clear explanations of the AI processes and opportunities to appeal decisions can further enhance trust and confidence in AI-driven recruitment.

Furthermore, the positive perception of AI in recruitment can be leveraged to strengthen an organization's employer brand. Companies known for using advanced and fair recruitment technologies are likely to be more attractive to top talent, particularly those from diverse backgrounds. This can provide a competitive advantage in the talent market, as candidates are more inclined to apply to organizations perceived as progressive and committed to fairness and innovation.

In conclusion, the integration of AI in recruitment processes offers significant potential for enhancing perceived fairness and efficiency. Practically, organizations should leverage AI to improve recruitment processes while maintaining transparency and accountability to ensure ethical use. By doing so, companies can attract a diverse pool of talent and foster a more inclusive and innovative organizational culture.

Drawing from these recommendations, the concluding section will synthesize the key findings of this study and underscore their significance in the context of AI in recruitment. The conclusion will also highlight the contributions of this research to the field and suggest paths for further exploration.

6. Conclusion

This study set out to determine whether individuals susceptible to discrimination, such as those with non-native names or appearances, perceive AI-assisted recruitment as a fairer and more trustworthy alternative to traditional human-led processes. Through empirical investigation, it has been found that candidates who are at risk of discrimination exhibit a higher level of trust in AI-driven recruitment systems. They view these systems as more objective and less influenced by human biases, which has significant implications for how organizations can structure their recruitment strategies to foster diversity and inclusion.

This work reveals several important insights. First, the study confirms that a perceived non-native appearance positively influences trust in AI technologies used in recruitment, suggesting that candidates believe AI is less likely to be swayed by subjective biases that might affect human judgment. Secondly, candidates with non-native appearances are more likely to apply to organizations that use AI in their hiring processes, reflecting a preference for what is perceived as a more impartial and transparent method. Thirdly, the association of AI-assisted recruitment with an organization's perceived commitment to diversity suggests that AI technologies, when implemented correctly, can serve as a strong signal of fairness and inclusivity in hiring practices.

These findings have broader implications for both organizations and the labor market as a whole. They suggest that companies seeking to attract a more diverse range of candidates should consider publicly promoting their use of AI in recruitment. By making their commitment to unbiased hiring known, organizations can enhance their employer brand, appeal to a broader talent pool, and demonstrate a genuine dedication to diversity and inclusion. Moreover, this perception of fairness and objectivity is likely to increase engagement from qualified candidates who may otherwise feel discouraged by traditional hiring practices known to harbor biases. This can lead to a richer, more diverse workforce, ultimately benefiting organizations through a wider range of perspectives, experiences, and ideas.

The study also underlines the necessity of ethical oversight and transparency in deploying AI tools for recruitment. While AI has the potential to mitigate some forms of bias, it is not immune to them; biases can still be inadvertently encoded into algorithms based on the data used or the parameters set by developers. Continuous monitoring, auditing, and refinement of AI systems are essential to ensure that they function as intended and do not

perpetuate or introduce new forms of discrimination. Organizations must maintain a high level of transparency, providing clear explanations of how AI systems operate, what criteria they use, and how fairness is safeguarded. This will be crucial in maintaining trust among job seekers, particularly those who are wary of automated processes.

In addition, the study opens several avenues for future research. Longitudinal studies could examine the long-term impact of AI-assisted recruitment on actual hiring outcomes and workforce diversity, providing more definitive evidence of whether AI tools can genuinely reduce discrimination over time. Future research should also focus on identifying which specific features of AI systems—such as anonymized applications, algorithmic decision-making, or automated feedback—most effectively contribute to enhancing perceptions of fairness and trust. Moreover, research could explore the interplay between AI and human recruiters, seeking to understand how these entities can complement each other to create more effective and equitable recruitment processes.

Furthermore, the findings of this research emphasize the importance of a strategic approach to AI implementation in recruitment. Companies should not only adopt AI to improve efficiency but also use it as a tool to actively promote diversity and inclusion. This involves designing AI systems that are transparent and accountable, continually assessing their impact on different demographic groups, and being proactive in addressing any unintended biases. By leveraging AI responsibly, organizations can build a more inclusive workplace culture that values diversity as a key asset for innovation and growth.

The integration of AI into recruitment processes offers considerable potential for enhancing perceived fairness, efficiency, and candidate experience. The findings indicate that AI can positively impact candidates' trust and their willingness to apply, especially among individuals with non-native appearances. However, to fully realize this potential, the ethical challenges must be carefully addressed. AI systems need to be transparent, accountable, and regularly monitored to prevent bias. As AI technologies continue to evolve, future research should focus on their long-term effects and specific features to better understand how they can contribute to more equitable and effective hiring practices. Ultimately, organizations should view AI not just as a technological advancement but as a strategic tool for promoting a more diverse and inclusive workforce.

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8. Appendix

Survey

Dear participant,

*I am Lilly Graßmann, a Master's student at Universidade Católica Portuguesa, conducting research for my thesis on "**Influence of Artificial Intelligence on Discrimination in Recruiting**".*

*All responses will be kept **confidential** and your anonymity will be strictly maintained throughout the research process. The survey will take about **6 minutes**.*

By clicking "I consent", you agree to participate, understanding the information provided.

Your legal rights remain unaffected. If you do not consent, please close your browser.

Thank you!

I consent

"AI in recruiting" refers to the use of artificial intelligence to streamline various aspects of the hiring process. This includes tasks such as resume screening, candidate sourcing, interview scheduling, and predictive analytics for assessing candidate fit. AI achieves this through the use of algorithms, which are step-by-step procedures or formulas for performing tasks. Tasks like resume screening or candidate sourcing are automated.

- I understand what AI in recruiting means

Agree

Somewhat agree

Neutral

Somewhat disagree

Disagree

- I believe that AI eliminates bias in recruiting processes.

- Agree
- Somewhat agree
- Neutral
- Somewhat disagree
- Disagree

- I think I have been discriminated against in a recruiting process.

- Agree
- Somewhat agree
- Neutral
- Somewhat disagree
- Disagree

- I think I could be discriminated against in the future in a recruiting process.

- Agree
- Somewhat agree
- Neutral
- Somewhat disagree
- Disagree

- I trust AI-assisted recruitment tools to make fair and unbiased decisions.

- Agree
- Somewhat agree
- Neutral
- Somewhat disagree
- Disagree

- I think my demographic characteristics (age, gender, perceived origin) influence **AI-assisted** recruitment decisions, although they are unimportant for the job itself.

- Agree
- Somewhat agree
- Neutral
- Somewhat disagree
- Disagree

- I am concerned about potential bias in AI-algorithms used for recruiting.

- Agree
- Somewhat agree
- Neutral
- Somewhat disagree
- Disagree

- I am concerned about potential bias in human recruiters.

- Agree
- Somewhat agree
- Neutral
- Somewhat disagree
- Disagree

- Please click "Neutral" to show that you are still paying attention.

- Agree
- Somewhat agree
- Neutral

Somewhat disagree

Disagree

- I trust human recruiters to make fair and unbiased decisions.

Agree

Somewhat agree

Neutral

Somewhat disagree

Disagree

- I think my demographic characteristics (age, gender, perceived origin)

influence **human recruiters** in their decision, although they are unimportant for the job itself.

Agree

Somewhat agree

Neutral

Somewhat disagree

Disagree

- Imagine you are on the lookout for a new job. Would you be more likely to apply to a job, knowing AI-assisted recruiting is used?

Definitely not

Probably not

Might or might not

Probably yes

Definitely yes

- Do you think companies using AI in recruiting care more about diversity than companies that don't use AI in recruiting?

- Definitely not
- Probably not
- Might or might not
- Probably yes
- Definitely yes

You are almost done. Please answer some questions about yourself:

- What is your age?

- What is your gender?

- Male
- Female
- Non-Binary / third gender
- Prefer not to say

- What is your nationality?

- I think I look native to the country I live in.

- Agree
- Somewhat agree
- Somewhat disagree
- Disagree

- I think my name sounds native to the country I live in.

- Agree

- Somewhat agree
- Somewhat disagree
- Disagree

Thank you very much for taking the time to participate in this survey. Your cooperation is highly appreciated. If you have any questions or concerns, please feel free to contact me at s-lgrassmann@ucp.pt.