

“Can AI Fix Hiring? Efficiency And Bias Reduction Through Technology Adoption”

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Abstract

This reading discovers the role of Artificial Intellect (AI) in enhancing employment efficiency and reducing bias within the IT and Telecommunication sectors. The research examines how technology adoption mediates¹ these impacts. Data collection was conducted through a questionnaire adapted from scales developed by Van Pay (2018), Martin & Freeman (2020), and Davis (1989). Key findings reveal that AI meaningfully progresses employment efficiency while simultaneously addressing biases inherent in traditional hiring practices. These findings have practical implications for HR managers and technology providers, providing insights into effective AI integration strategies.

Keywords: AI, IT, Telecom, Employment Efficiency, Bias, Inherent and traditional hiring practices, HR managers.

Introduction

1.1 Background of the Reading

The fast growth of artificial Intelligence (AI) has particularly transformed numerous industries, with Human Resource Management (HRM) being no exception. AI technologies, which mimic human cognitive capabilities, have transformed recruitment and selection tactics in companies by means of refining productiveness, reducing biases, and improving decision-making abilities. As companies worldwide retain to stand difficult situations in attracting the proper skills in an increasing number of aggressive exertions marketplace, the want for green, facts-driven, and objective recruitment methods has never been greater urgent.

Inside the traditional HRM framework, recruitment, choice, and schooling are middle functions, commonly executed via manual approaches. But, AI's addition into those approaches is permitting HR specialists to systematize recurring tasks, identify appropriate applicants quicker, and ensure more accurate hiring selections. AI skills, including natural Language Processing (NLP), device vision, Automation, and Augmentation, are being practical to enhance the speed, correctness, and fairness of employment techniques throughout numerous sectors, which includes telecommunications, banking, and training.

Telecommunications area: The Telecommunications industry is underneath steady strain to hold aggressive advantage through employing professional workers capable in the modern technology. Challenges containing of excessive worker turnover, converting technical needs,

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and opposition for expertise make recruitment on this sector in particular complicated. AI-primarily based equipment are used to increase candidate sourcing, automate initial screenings, and assist in matching candidates' qualifications with specific process roles. Those technologies also provide massive advantages in terms of enhancing variety and inclusion with the aid of decreasing human bias during the hiring procedure.

Notwithstanding the numerous blessings AI brings to HRM, its acceptance poses several challenges. The employment of AI in staffing needs not most effective technological organization but also professional employees capable of handling and utilizing those advanced gear. Difficulties related to facts , protection, and the cost of implementation remain doubts that agencies must manage with to make sure a hit AI integration.

1.2 Statement of the problem

The growing demand for skilled skills and the growing complexity of recruitment techniques have made it tough for HR authorities to achieve employment goals correctly and fairly. Conventional recruitment techniques are frequently slow, unwieldy, and accountable to human biases, which can undermine the satisfactory of hiring selections. AI offers a promising solution to streamline those techniques, enhancing candidate matching, lowering bias, and allowing HR specialists to make more data-pushed decisions. However, the adoption of AI in recruitment isn't always without its challenges. Many companies face problems in integrating AI gear due to a lack of expert manpower, insufficient technical structure, and issues over information security. Therefore, there may be a need for a higher knowledge of ways AI can be positively hired in recruitment, the limits that come with its integration, and the advantages AI offers in enhancing efficiency and lowering prejudice in recruitment practices.

1.3 Research Questions

How does AI adoption enhance recruitment efficiency?

This question explores how AI tools give to streamlining recruitment activities such as candidate sourcing, screening, and shortlisting, and how these competences are measured in recruitment performance.

What is the role of AI in reducing bias in recruitment processes?

This question investigates whether AI can ease or worsen biases (e.g., gender, race, or background) that characteristically influence hiring decisions. It will assess if AI-driven tools lead to fairer outcomes in recruitment.

How does technology adoption mediate the relationship between AI and recruitment efficiency?

This focuses on how issues related to the acceptance of technology (such as organizational readiness and user training) effect the connection between AI practice and staffing process efficiency. This question aims to expose how adoption performances affect AI application and its effectiveness.

How does technology adoption mediate the relationship between AI and bias reduction?

This question examines the role of technology adoption in easing AI's ability to decrease bias in recruitment processes. It focuses on how the extent of adoption impacts AI's efficiency in promoting fairness.

Evolution of Recruitment Practices

The recruitment scenery has undergone significant alteration over the years, driven by technical advancements, globalization, and changing staff dynamics. Initially, recruitment processes

relied heavily on manual efforts, in-person networking, and print job advertisements. However, the introduction of online job boards in the 1990s marked a shift toward digitalization, enabling recruiters to reach broader viewers. Platforms such as LinkedIn and Indeed further efficient the recruitment process by facilitating seamless connections between job seekers and employers (Ahmed et al., 2023).

The Shift towards Technology-Driven Recruitment

Digital platforms have transformed recruitment by enhancing competence and increasing access to diverse talent pools. Tools like community media stages (e.g., LinkedIn, Facebook, and Twitter) allow employers to cabinet their brand and directly connect with potential candidates. Applicant tracking systems (ATS) mechanize numerous periods of the hiring process, including resume screening and applicant shortlisting, reducing manual workload for HR teams. These developments have changed recruitment from a process-centric approach to a candidate-centric one, prioritizing the candidate's knowledge and arrangement with organizational culture (Budhwar et al., 2022).

The COVID-19 pandemic accelerated changes in recruitment practices, as remote work became the norm. Organizations adopted virtual hiring processes, including video interviews, online job fairs, and digital assessments. These methods not only prolonged talent access beyond geographical boundaries but also highlighted the importance of digital capability in recruitment strategies (Chen, 2022).

Challenges in Recruitment

Despite technological progressions, recruiters face persistent challenges. Managing large volumes of candidate data remains a key issue, alongside addressing unconscious biases in hiring decisions and meeting the demands of a tech-savvy, diverse, and socially conscious workforce. Moreover, balancing efficiency with personalization in the candidate experience is an ongoing struggle (Tippins et al., 2021).

Artificial Intelligence (AI) has appeared as a transformative force in recruitment, introducing advanced capabilities such as analytical analytics, machine learning, and natural language processing. AI tools streamline recruitment processes by automating repetitive tasks like resume screening and interview scheduling, thereby improving efficiency and reducing operational costs. For instance, AI-powered chatbots provide real-time candidate support, attractive the overall candidate experience. Logical analytics can also identify candidates most likely to succeed in specific roles, improving the excellence of hires (Kazim et al., 2021).

However, AI adoption in recruitment raises ethical and working concerns. Issues such as algorithmic bias, lack of transparency, and privacy violations are significant barriers to widespread acceptance. Research underscores the importance of human oversight in AI-driven recruitment to mitigate risks and ensure ethical compliance (Hunkenschroer & Luetge, 2022). Diversity, equity, and inclusion (DEI) have become dominant to modern recruitment practices. Organizations aim to create equitable chances for understated groups and ensure diverse perspectives in their workforce. While AI tools can assist by identifying diverse candidate pools and falling biases, they must be applied cautiously to avoid perpetuating existing differences (Yam & Skorborg, 2021).

1.4 Objectives of the Study

1. **Assessment of Effectiveness:** This study examines the impact of AI-based strategies on recruitment outcomes, including efficiency, diversity, and quality of hires.
2. **Ethical and Legal Considerations:** It explores challenges such as algorithmic bias, privacy issues, and accountability in AI-powered recruitment processes.
3. **Identification of Best Practices:** A comparative analysis of AI tools and strategies highlights their strengths, weaknesses, and potential for future development.

By accepting the benefits and limitations of AI tools, HR leaders can make knowledgeable choices that align with structural goals. This research provides illegal visions to improve candidate experience, promote fairness and inclusivity in hiring, and ensure ethical and transparent AI adoption in recruitment practices (Ahmed et al., 2023; Tippins et al., 2021)

The combination of numerical variations in organizational procedures is now not non-obligatory but an important enabler for attaining violent benefit in these days's dynamic commercial enterprise surroundings. Organizations an growing number of rely on innovative skills to reshape traditional tactics, making them greater green, adaptive, and globally competitive. Recruitment, a middle human resource characteristic, demonstrates this shift by way of acceptance advanced facts technologies (IT) to beautify performance and increase the scope of talent acquisition (Ahmed et al., 2023).

1.5 Research Gap and Study Importance

While AI has significantly impacted recruitment practices, there is limited comprehensive research on its effectiveness in reducing biases and refining efficiency. Existing studies often focus on specific tools or ethical concerns, leaving a gap in understanding how AI-driven recruitment strategies can be holistically evaluated and enhanced. This study aims to bridge that gap by critically analyzing AI's role in recruitment, focusing on its influence on efficiency, bias reduction, and adoption trends (Ahmed et al., 2023; Budhwar et al., 2022).

The digitalization of recruitment strategies has converted the way corporations attract, limit, and hire expertise. IT equipment consisting of applicant tracking structures (ATS), video interviewing structures, and candidate dating control structures have streamlined diverse levels of recruitment, from task postings to onboarding. Those tools have enabled recruiters to attain a wider target market, improve candidate engagement, and make facts-driven choices (Albassam, 2023). Moreover, the upward thrust of far pitched and hybrid paintings surroundings put up-COVID-19 has required the adoption of virtual recruitment technologies, authorizing businesses to access a worldwide skills pool (Budhwar et al., 2022).

1.6 Significance of the Study

This studies is large as it speeches the developing need for properly-organized and unbiased recruitment procedures in companies. By way of exploring the effect of AI on HR functions, in particular recruitment, the observe gives precious insights into how AI may be leveraged to enhance selection-making, reduce human bias, and enhance worldwide employment results. Moreover, this study offers practical third class for governments trying to undertake AI in HRM and enables them recognize the challenges and possibilities AI presents inside the recruitment panorama.

Furthermore, by way of concentrating specially on the IT and Telecommunications sectors, this studies donates to a more specific understanding of how AI adoption influences recruitment in these unexpectedly evolving industries. The findings can help HR authorities in these sectors navigate the difficulties of AI integration, optimize recruitment tactics, and stay competitive in attracting pinnacle talent.

Limitations in the theoretical framework:

Scope of Theoretical Framework: The study emphasizes on AI adoption and its impact on recruitment efficiency and bias reduction, drawing on recognized models like the Technology Acceptance Model (TAM) and the Theory of Reasoned Action (TRA). However, these models may not fully account for the nuanced organizational or cultural factors that could influence AI adoption in varied sectors such as IT and Telecommunication. This restriction is significant since these models may not capture all the variables at play in AI's impact on recruitment processes.

Limited Generalizability: The study targets HR experts within the IT and Telecommunication sectors in Pakistan, which may limit the wider applicability of the findings to other sectors or regions. The specific challenges and technologies in these sectors may not be representative of other industries that might also implement AI in recruitment.

Dependence on Existing Models: The study adjusts existing scales and hypothetical models, but these models may not completely imprison the quick development of AI technology or the evolving nature of employment practices. The statement that these representations are universally applicable may overlook the unique tests presented by new scientific advancements.

Bias in Theoretical Perspectives: The focus on a quantitative approach may overlook qualitative insights from HR experts regarding their lived experiences with AI in recruitment. Thus, the hypothetical basis may neglect deeper, background understanding and ignore individual distinctions.

Literature Review

2.1 Understanding AI and Its Role in HRM

Jia et al. (2018) label AI as mechanism intellect developed to create “rational machineries” capable of mimicking human capabilities and intelligent behavior, often outstanding human intelligence. AI contributes to structural equality by secondary impartial choices and treatment doubts (Jarrahi, 2018). It also raises digital alteration when combined across sections like HR, finance, and operations, creating a significant cultural shift within organizations (Shweta Jain, 2017).

2.11 Recruitment Efficiency

Recruitment performance refers to the efficiency and speed with which a recruitment procedure fulfills its goals, along with filling positions with expert candidates. AI accompaniments performance by means of mechanizing repetitive obligations like resume screening, candidate ranking, , allowing HR experts to attention on strategic choices.

AI tools like chatbots reduce recruitment time with the help of automating candidate verbal exchange and scheduling interviews (Upadhyay & Khandelwal, 2018). Predictive analytics identifies the first-rate candidates by way of studying ancient statistics, enhancing the acceptable of hires at the same time as lowering fees (Van Pay, 2018). Automation reduces human errors and shortens the recruitment cycle (Martin & Freeman, 2020).

Recruitment efficiency refers back to the volume to streamline the hiring method, ensuring that excellent candidates are identified and hired rapidly and price-successfully. Performance in recruitment often involves metrics like time-to-lease, price-in step with-rent, and the fine of hire. Technology, particularly AI, can recover presentation by means of mechanizing repetitive obligations like resume screening and candidate outreach, reducing human intervention and mistakes. In step with Bersin et al. (2021), AI-pushed gear like Applicant tracking systems (ATS) have substantially decreased time-to-hire and elevated recruiter productivity

Artificial Intelligence (AI) has been an increasing number of combined into staffing methods to improve presentation and reduce time-to-rent. AI systems, mainly the ones utilizing system gaining knowledge of and natural language processing, permit HR experts to automate diverse degrees of recruitment, from initial applicant screening to very last selection (Jia et al., 2018). Those AI agendas help businesses streamline the recruitment process by way of quick studying

huge volumes of agendas, figuring out the first-class candidates, and matching them to the specified task criteria, which ultimately complements recruitment performance (Prashant Srivastava, 2018).

2.1.2 AI-Driven Screening and Chatbots

A key component of AI in staffing is the use of chatbots to mechanize early-stage recruitment obligations, inclusive of answering regularly asked questions, scheduling meetings, and even accomplishing preliminary screening. Studies by way of Gigi & Gunaseeli (2021) highlights that AI-pushed chatbots can significantly lessen the workload of recruiters by acting repetitive tasks, which lets in HR authorities to consciousness on extra strategic obligations, which include evaluating applicants and making very last signing choices. Moreover, Swapna & Arpana (2021) speak how chatbots use pre-decided inquiries to screen candidates, rank them based on suitability, and ahead only the most certified applicants to human recruiters. This no longer handiest reduces time-to-lease but additionally guarantees that the recruitment procedure is extra green.

2.1.3 Predictive Analytics and Recruitment planning

AI-powered predictive analytics tools are another sizeable component in enhancing recruitment efficiency. By means of studying historical facts on previous hires, predictive fashions can forecast destiny hiring desires and help recruiter's goal the most actual sourcing channels. In keeping with Kakulapati et al. (2020), predictive analytics allows recruiters pick out traits and patterns, authorizing them to order sourcing efforts for the most talented candidates. Moreover, predictive analytics can reduce the time-to-fill locations by using helping HR sections forecast the number of hires required, thereby permitting them to plot staffing sports in advance (IBM, 2022). As highlighted through Panayides (2023), predictive analytics also can mitigate recruitment biases with the aid of focusing on goal records rather than subjective elements like age or gender, which could in the end improve each performance and equity in recruitment.

Gamification is another AI-based totally approach that enhances employment performance by means of enhancing candidate engagement and providing deeper insights into applicants' capabilities. Tansley et al. (2016) declare that the combination of sport-like factors, which includes points, badges, and leaderboards, into staffing methods can encourage applicants to perform better at some point of exams. This creates a greater good-looking recruitment enjoy while concurrently assisting employers examine candidate capabilities extra accurately. Ęrgle & Ludviga (2018) observe that gamification also can help companies entice pinnacle expertise via creating an effective group brand photograph, which could result in more efficient staffing through attracting higher-first-class applicants.

The mixing of AI gear moreover contributes to quicker selection-making in staffing. AI packages can fast examine resumes, process applications, and candidate profiles, rating them primarily based on numerous standards which includes qualifications, revel in, and alignment with employer subculture (Shweta Jain, 2017). This reduces the time spent by using HR professionals in sifting thru resumes and selecting candidates manually. Consistent with Geetha & Bhanu Sree Reddy (2018), AI structures ensure that HR departments manage candidate statistics efficaciously, making recruitment processes more prepared, accurate, and time-green.

2.1.4 Challenges to AI Adoption in Recruitment

While AI has the capacity to meaningfully improve recruitment routine, challenges still exist. Tambe et al. (2019) identified many limits to AI adoption in HR, such as the difficulty of HR functions, statistics challenges, equity troubles, and worker confrontation to AI-pushed selections. Those elements may gradual down the whole application of AI structures, in particular in recruitment features. Prasanna Tambe et al. (2019) argue that HR professionals

should be privy to those challenges and actively work to mitigate them to fully recognise the performance benefits of AI.

2.1.5 Traditional Role of HR in Recruitment and Selection

The Human Resources (HR) section has evolved significantly from its outdated role as an administrative function to a multifaceted department supervision various organizational tasks (Abbas et al., 2024). Recruitment and selection are critical components of HR, focusing on identifying applicants with the appropriate skills and experiences to meet organizational needs. These processes are more complex than often assumed, as they involve identifying and selecting the right talent from a pool of candidates (Atwijuka & Caldwell, 2017). Recruitment is considered a strategic HR function because it aligns the group of applicants with the organization's goals and future plans (Stoilkovska et al., 2015).

Despite its position, administrations face numerous challenges in recruitment, including time pressure due to vacancies that can lead to operational delays (Dessler, 2011), difficulties in finding qualified candidates in large applicant pools, and biases in selection processes (Dessler, 2011). These challenges necessitate innovations in recruitment strategies, and one of the most promising advancements is the application of Artificial Intelligence (AI).

The addition of AI into employment and selection processes has the potential to address many of the challenges faced by HR departments. AI technologies can streamline various stages of recruitment, from initial screening to final selection, offering efficiency, fairness, and better candidate matches (Dijkkamp, 2019). AI methods such as machine learning (ML) and Natural Language Processing (NLP) can significantly reduce the time and cost of recruitment, making it a valuable tool for organizations with high volumes of applications (Jalota, 2024).

AI-powered staffing tools help HR professionals efficiently manage large volumes of candidates by automating repetitive tasks, such as screening resumes and directing initial interviews (Bakshi & Damle, 2022). These tools use predictive analytics to evaluate candidate characteristics, including cognitive abilities and personality traits, which are essential for decisive job fit (Grunenberg et al., 2024). Machine learning models can examine performance data, survey responses, and candidate profiles to predict future job performance, which reduces reliance on subjective evaluations and potential biases in the recruitment process (Bakshi & Damle, 2022).

AI also improves recruitment efficiency by reduction down a large pool of applicants to those with the highest likelihood of success. Through the use of predictive algorithms, AI can identify the most suitable candidates based on factors such as past performance, skills, and behavioral traits (Bakshi & Damle, 2022). This process not only rises competence but also encourages fairness by mitigating biases related to race, gender, or other demographic factors (Bakshi & Damle, 2022).

2.1.6 Limitations of AI in Recruitment

While AI offers many welfares, its application in recruitment is not without challenges. According to Tambe et al. (2019), there are several limits to e-recruitment and AI adoption in HR, including issues like the repetition of resumes, lack of validity in candidate data, and incomplete access to the internet in some regions. Moreover, AI representations may inherit biases present in the data used to train them, which could continue biased practices in staffing if not carefully monitored (Tambe et al., 2019).

Moreover, the difficulty of AI technology and controlling challenges may hinder its adoption in some organizations. Pan et al. (2021) found that companies' perceived complexity in adopting AI, along with a lack of skill capability and regulatory support, can act as barriers to full AI addition in recruitment processes. Despite these challenges, AI adoption is seen as a way for administrations to gain a competitive advantage by improving recruitment speed, accuracy, and fairness (Pan et al., 2021).

2.1.7 Future of AI in Recruitment

The future of employment will likely involve a cumulative dependence on AI technologies, as they continue to evolve and become more nearby. AI can improve HR decision-making by providing data-driven insights and forecasts about candidates' potential job performance (Jalota, 2024). Furthermore, AI can recover employee holding by classifying the best candidates for long-term success and predicting future talent needs (Dijkkamp, 2019).

As AI continues to influence the staffing landscape, HR professionals must adapt their roles to leverage these technologies efficiently. While AI can mechanize many aspects of recruitment, human judgment will still be essential in final decision-making to ensure that the selected candidates align with organizational values and culture (Grunenberg et al., 2024).

2.2 Bias Reduction

Bias in recruitment refers to favoritism or judgement that occurs unconsciously or consciously during candidate selection. AI can meaningfully reduce bias by standardizing processes and using algorithms to evaluate candidates objectively. Structured AI algorithms emphasis solely on experiences and experience, ignoring subjective biases related to gender, ethnicity, or age (Jatobá et al., 2020). AI-based tools such as blind resume screening systems anonymize applications, ensuring a fairer evaluation process (O'Mara & Richter, 2021). However, biases in training datasets can perpetuate systemic biases if not managed carefully (Binns, 2018).

Bias reduction in recruitment focuses on minimalizing conscious and unconscious biases that can affect decision-making. AI plays a critical role here by enabling objective data-driven evaluations of candidates. Techniques like blind resume screening and algorithmic recommendations based on predefined criteria can help reduce gender, racial, and other biases in hiring. Research by Barocas and Selbst (2016) highlights that while AI can mitigate biases, it requires proper algorithm design and diverse training data to avoid perpetuating systemic inequities.

2.2.1 Bias Reduction in Recruitment through AI

Artificial Intelligence (AI) has been more and more recognized for its capacity to reduce biases in recruitment and choice tactics. Traditional recruitment methods are regularly criticized for perpetuating unconscious biases associated with race, gender, age, and other demographic characteristics. AI, while used efficiently, can offer an extra objective technique to candidate choice, making selections based totally on records-pushed insights instead of subjective human judgment (Dastin, 2018; Jannach et al., 2020).

2.2.2 The function of AI in Bias reduction:

AI technology can contribution minimize bias via regulating choice-making strategies. For instance, system gaining knowledge of procedures can examine applicants primarily based on precise standards such as skills, enjoy, and overall performance statistics, without being prompted by beside the point elements like appearance or gender (Dastin, 2018). AI also can assist position of biased language in job descriptions and recruitment materials, ensuring that the language used does now not accidentally desire positive agencies (Jannach et al., 2020).

Moreover, AI fashions may be cultured on large datasets that include diverse applicants, permitting the algorithms to discover patterns that may not be immediately obvious to human recruiters. Via focusing at the most relevant qualifications and talents, AI can boom the equity of the choice system, offering equal opportunities for candidates from all backgrounds (Sánchez-Medina et al., 2020).

2.2.3 Challenges and limitations in Bias reduction

But, AI's capacity to lessen bias in recruitment is not without its difficult situations. One sizeable difficulty is that AI algorithms can inherit biases from the records used to educate

them. If the historical employment facts incorporates biases—which includes a unequal variety of male candidates in tech roles—AI structures might also unintentionally mirror those biases, even though they may be designed to lessen them (Raji & Buolamwini, 2019). Therefore, it is critical that corporations use diverse, representative datasets whilst growing AI models to ensure that the algorithms are not reinforcing existing inequalities.

Furthermore, transparency in AI selection-making methods is another situation. AI structures that operate as "black containers," wherein the reason in the back of choices is not really defined, can make it hard to discover and address biases (Binns, 2018). Corporations must ensure that their AI structures are interpretable and that HR specialists can apprehend and screen the AI's choice-making technique.

2.2.4 AI's impact on Gender and Racial Bias

AI has shown promise in addressing gender and racial biases in recruitment. for instance, numerous research have verified that AI-pushed structures, including blind staffing software, can reduce gender bias by means of covering candidates' names, photos, and different demographic info all through the screening method (Binns, 2018). Further, AI can reduce racial bias by means of specifying in skills and experiences as opposed to making judgments primarily based on racial stereotypes.

One study with the aid of Binns (2018) exposed that AI recruitment gear decreased gender bias in hiring choices likened to human recruiters. While gender-identifying data including names or pronouns became left out from the staffing process, AI algorithms have been much less possibly to prefer male applicants, leading to a more balanced selection of candidates. Moreover, a document by way of the McKinsey international Institute (2019) highlighted how AI has been used to endorse variety in hiring through eliminating the have an effect on of gender and race on the choice-making manner, thereby authorizing organizations to tap right into a more varied talent pool.

2.2.5 Limitations in Bias reduction and ethical Concerns:

In spite of the talented potential of AI to lessen bias, there are sizable obstacles and moral issues. One crucial limitation is that AI may also inadvertently reinforce bias if no longer frequently monitored and up to date. For instance, a staffing algorithm that has been skilled on biased data could perpetuate or even enlarge the ones biases over the years. Moreover, the dependence on AI in recruitment could lead to moral issues if the AI machine is used to distinguish in methods that aren't transparent or responsible (O'Neil, 2016).

2.2.6 Best Practices for AI in Bias reduction

To positively utilize AI for bias reduction in recruitment, corporations should follow great practices along with:

The use of frequent education statistics: making sure that AI fashions are educated on diverse and consultant datasets to reduce the chance of bias. Regular Auditing of AI models: continuously monitoring and auditing AI systems to detect and accurate any emerging biases. Transparency in AI choice-Making: Making the choice-making methods of AI systems obvious to make sure fairness and accountability. Human Oversight: Combining AI with human judgment to make certain that recruitment selections are not completely based totally on algorithms but additionally on background elements which can require human insight (Raji & Buolamwini, 2019).

2.3 Technology Adoption

Technology adoption in recruitment refers back to the diploma to which agencies enforce AI-driven answers to embellish hiring methods. Elements like apparent usefulness, comfort of use, and structural readiness play a position. Davis (1989) highlights the era admiration model

(TAM), and is the reason that apparent practicality and simplicity of use inspiration adoption prices. Agencies in tech-forward sectors find it tempting and Telecommunications are more likely to adopt AI because of their familiarity with larger technologies (Verma et al., 2021). The adoption technique is stimulated by using organizational way of life, infrastructure, and workforce training (Martin & Freeman, 2020).

Technology adoption is the way through which people or companies begin to use and assimilate new technology into their operations. In recruitment, adoption of AI equipment often entails factors inclusive of apparent usefulness, ease of use, and compatibility with existing structures. The technology popularity version (TAM) by way of Davis (1989) shows that apparent ease of use and perceived usefulness are key drivers of generation adoption in organizational settings. This aligns with findings by way of Martin and Freeman (2020), who specified that companies with clean AI education programs revel in higher implementation rates and greater fantastic consequences.

2.3.1 AI-based totally Recruitment strategies

Artificial intelligence has appreciably converted recruitment methods, introducing diverse tools and techniques geared toward enhancing efficiency, lowering bias, and enhancing the candidate experience. Several AI-primarily based strategies have emerged, together with chatbots, analytical analytics, gamification, and digital reality (VR) exams.

Chatbots automate repetitive obligations, such as scheduling interviews and answering regularly asked questions, letting recruiters to focus on extra complex mechanisms of recruitment (Gigi & Gunaseeli, 2021; Swapna & Arpana, 2021). But, they may be no longer calculated to update human recruiters however to help within the preliminary tiers, hence improving ordinary performance (Albassam, 2023).

Predictive Analytics, on the other hand, influences historical recruitment information and system mastering algorithms to expect purpose hiring desires and significances, enhancing choice-making and decreasing employment bias with the aid of that specify in objective information (Kakulapati et al., 2020; Panayides, 2023). Using predictive analytics has been established to beautify candidate great and reduction time-to-fill positions (SHRM, 2022).

Gamification has arose as a powerful tool in staffing, the usage of elements like factors, badges, and leaderboards to encourage applicants and deliver insights into their skills and abilities (Tansley et al., 2016; Ęrgle & Ludviga, 2018). This system no longer best boosts applicant appointment but also facilitates in talent attraction and retention.

Eventually, virtual fact (VR) tests are fast traction as a technique to simulate task-associated duties and compare applicants in a skillful environment. This immersive era provides insights into a candidate's skills in a applied context, supplying more dynamic exams (Albassam, 2023).

These strategies make a contribution to recruitment performance, enhancing both the speed and first-class of the hiring method even as speaking problems associated with bias and engagement.

2.4 Mediating Role of Technology Adoption

Technology acceptance serves as a bridge among AI implementation and its effects on recruitment efficiency and bias reduction. Without suitable implementation, the ability assistances of AI in these regions continue to be unrealized. AI adoption improves performance by rationalization workflows and allowing data-driven decision-making (Upadhyay & Khandelwal, 2018). Adoption mitigates bias most actual while gear are applied effectively, and staffs accept as true with their efficacy (Binns, 2018). The facilitating position is in particular huge in tech sectors, where AI tools are integrated synthetic Intelligence and Organizational Transformation

Artificial Intelligence (AI), moreover known as contraption intelligence, has emerged as a incredible device for growing systems that mimic human cognitive functions and may

doubtlessly outperform human intelligence (Jia et al., 2018). AI's position in organizational choice-making has come to be critical, especially in selling fairness and objectivity. In keeping with Qamar (2021), randomization in AI procedures can help in making truthful choices, discontinuing biases which are frequently present in human judgments. AI contributes to preservative equality in choice-making methods and enables groups manage uncertainties successfully (Jarrahi, 2018).

AI has added an huge transformation in Human aid management (HRM), improving efficiency and selection-making techniques. AI technology are increasingly included throughout diverse HR features, together with performance opinions (Zhang et al., 2012), worker selection (Chien & Chen, 2008; Oswald et al., 2020), worker turnover prediction (Sexton et al., 2005), and even worker emotional involvement (Lucia-Casademunt et al., 2013). However, HRM is one of the regions in which AI programs are however evolving and underexplored, as advised by Strohmeier and Piazza (2015). As AI generation maintains to strengthen, it's miles turning into an vital tool for HR managers, especially in recruitment approaches (Tambe et al., 2019).

2.5 Relationships among Key Variables

2.5.1 AI in Recruitment

Recruitment is one of the most wonderful HR functions to advantage from AI applications. In line with Prashant Srivastava (2018), AI saves HR managers time through mechanizing the recruitment procedure, particularly for senior and center-stage control positions. AI technology, inclusive of chatbots, streamline diverse staffing tasks, inclusive of candidate interplay, screening, comply with-up, and automated e mail verbal exchange. Jain (2018) highlighted the function of AI in enhancing the hiring manner and its rising dependence on chatbots for recruitment obligations. These AI-pushed tools beautify the accuracy, value-effectiveness, and appropriateness of recruitment techniques (Geetha & Bhanu Sree Reddy, 2018). Also, AI enables HR sections to keep facts more efficaciously, supplying deeper insights into candidate swimming pools and enhancing recruitment strategies (Yusra Qamar et al., 2019).

Despite the potential of AI in HRM, challenges continue to be in its addition and great acceptance. Tambe et al. (2019) diagnosed 4 number one limitations to AI implementation in HR: the complexity of HR phenomena, facts difficult situations, prison and fairness restraints, and employee reactions to AI-driven choices. These demanding situations indicate that, whilst AI can automate and enhance HR approaches, its application ought to be approached cautiously to avoid negative results, such as resistance from personnel or unintentional bias.

2.5.2 Future of AI in HRM

The potential for AI in HRM is good sized, but corporations ought to be organized for the technical shift. According to Marwan Mohamed Abdeldayam et al. (2020), businesses aiming to stay competitive ought to contain AI in their HR selection-making methods. The mixture of AI in HR functions like staffing and body of workers basis is vital for firming organizational performance and attractive decision-making quality (Jain, 2018). But, growth has been slow in some regions because of fight to exchange and the difficulty of coping with AI-driven selections, as highlighted by means of Prasanna Tambe et al. (2019). Into employment applies extra effortlessly (Verma et al., 2021).

2.5.3 AI Utilization and Recruitment Efficiency

AI utilization meaningfully enhances staffing efficiency by mechanizing and optimizing processes, such as sourcing, screening, and shortlisting candidates. AI-powered tools analyze large datasets to identify qualified applicants faster and with greater accuracy, reducing the time and effort required in traditional employment methods. Evidence from Literature: Dwivedi et

al. (2021) emphasized AI's role in streamlining recruitment processes, such as resume parsing and interview scheduling, which expressively improves efficiency. Charlwood (2021) highlighted that AI reduces recruitment costs and improves speed, paying to higher efficiency for HR teams. Johansson & Herranen (2019) noted that AI helps administrations identify candidates with the right skills and experiences, which improves resource allocation and task similar.

2.5.4 AI Utilization and Bias Reduction

AI utilization reduces bias by removing human subjectivity in candidate evaluations. When designed with ethical thoughts, AI systems ensure that recruitment choices are based solely on relevant experiences and experience. Evidence from Literature: Rathnayake & Gunawardana (2023) discussed how AI removes human errors and prejudices, safeguarding a transparent and accountable hiring process. This leads to more reasonable staffing decisions that align with organizational diversity goals. Kelan (2023) warned that biased training data could continue existing dissimilarities, but ethical procedure development can alleviate this risk. Harisha et al. (2023) argued that AI enhances justice by steadily applying evaluation criteria, reducing potential discrimination in hiring.

2.5.5 Technology Adoption as a Mediator

Technology adoption mediates the relationship between AI utilization and its consequences, acting as the bridge for achieving recruitment efficiency and bias reduction. Organizations with high acceptance rates of AI technology are better positioned to leverage its potential benefits effectively. Evidence from Literature: Davis (1989) introduced the Technology Acceptance Model (TAM), explaining that perceived ease of use and usefulness significantly influence technology adoption. When HR experts perceive AI tools as accessible and beneficial, they are more likely to integrate them into employment practices. Faqih & Miah (2023) highlighted the position of administrative readiness and cultural alignment in the effective adoption of AI technologies, suggesting that adoption facilitates the impact of AI on recruitment outcomes.

2.5.6 Recruitment Efficiency and Bias Reduction

There is a bidirectional relationship between recruitment efficiency and bias reduction. Efficient recruitment organizations often reduce the likelihood of result fatigue, which can lead to unconscious bias. Equally, minimizing bias ensures objective evaluations, foremost to more well-organized hiring decisions. Indication from Literature: Kelan (2023) noted that AI systems free recruiters from uninteresting tasks, permitting them to focus on strategic executive, which indirectly reduces the likelihood of bias. Johansson & Herranen (2019) showed that objective candidate assessments contribute to consistent hiring practices, improving overall efficiency. Renkema (2022) warned that poorly implemented AI could reinforce biases and challenge the efficiency of recruitment processes, highlighting the need for careful design and oversight.

2.6 Integrated Framework for the Variables

AI Utilization straight influences both Recruitment Efficiency and Bias Reduction finished automation and optimization. Supporting Studies: Dwivedi et al. (2021), Rathnayake & Gunawardana (2023), Harisha et al. (2023). Technology Adoption helps as a critical intermediary, as governments with a high level of knowledge readiness maximize AI's benefits while minimizing its risks. Supporting Studies: Davis (1989), Faqih & Miah (2023). Staffing Efficiency and Bias Reduction reinforce each other: Efficient recruitment processes reduce bias by minimizing decision fatigue. Bias reduction ensures fair evaluations, enhancing process efficiency. Supporting Studies: Kelan (2023), Johansson & Herranen (2019).

Challenges and Limitations: While AI promises significant improvements, challenges like biased algorithms, data security risks, and the complexity of knowledge adoption can undermine its effectiveness.

Cautionary Studies: Renkema (2022), Kim & Bodie (2021), Wylde et al. (2023).

2.7 The ethical imperative

The deployment of AI in HR raises moral worries, mainly regarding accountability and choice-making authority. The dearth of transparency in AI structures can erode trust, necessitating strong governance structures and adherence to moral frameworks (Kahraman et al., 2011).

Ethical AI use in HR comprises safeguarding candidate and operative information privacy while speaking broader effects consisting of task movement and worker reskilling. Companies must foster transparency, uphold equity, and adopt AI ethics guidelines to navigate these challenges correctly.

Traditional overall performance control regularly hurts from subjectivity because of expressive exchanges and casual organizational subtleties that could have an effect on the precision and fairness of assessments (Younis & Adel, 2020). AI gives an answer ended objectively demo and analyzing employee reading information, lessening human bias and mistakes. AI can participate facts from recurrent resources, along with company growth and innovativeness overall performance, to create a honest and understandable performance appraisal device (Haenlein & Kaplan, 2019).

AI's use of facts assessment improves organizational performance and worker enthusiasm by way of lowering inadequacies and irrelevant costs (Anagnoste, 2018).

2.7.1 AI in employee relations:

Traditional HR responsibilities, together with permission organization, social protection processing, and determining employee arguments, are regularly repetitive and helpless to mistakes. AI streamlines those obligations thru gadget learning algorithms, improving performance (Pathak & Solanki, 2021). AI also enables set up fairer hard work family members by using selecting the fine schemes for both employees and employers, selling healthful structural way of life and precis of prior paintings on AI in HR Practices

Strategic HR making plans AI accompaniments HR making plans with the aid of educating mission performance, innovation, and sensibility for managers (Samarasinghe & Medis, 2020). It addresses the challenging situations faced in traditional HR making plans, comprehensive of complex paintings content and facts limits, which often transport about obscure forecasts of individual call for (Jia et al., 2018). Large facts examination optimizes records collection, forecasts destiny administrative needs, and helps in strategic HR making plans (DiClaudio, 2019). Predictive analytics, regarding statistical modeling, facts mining, and device knowledge, permits for higher predictions with the aid of examining past and cutting-edge facts, hence refining HR selection-making efficiency.

AI, whilst improving performance, can also introduce biases. There's situation that AI might not be the impartial tool it's far regularly believed to be. it is able to cause unsatisfactory get right of entry to and judgement in employment potentials, specifically in relative to gender and racial diversity (Gulliford & Dixon, 2019; Rana, 2018).

2.7.2 Recruitment and selection:

AI drastically improves recruitment strategies via improving objectivity and accuracy in candidate evaluation (Wilfred, 2018). Traditional recruitment, which often relies on subjective impressions, can gain from AI algorithms that objectively suit resumes with job necessities, doing away with biases like discrimination or emotional judgments (Geetha & Bhanu, 2018). AI-based structures automate the resume screening and candidate rating manner, helping HR

sectors control the growing extent of letters greater effectively (Upadhyay & Khandelwal, 2018; Faliagka et al., 2012). Chatbots are used to keep personalised connections with applicants through automated messages (Upadhyay & Khandelwal, 2018).

Tools like HireVue help in attractive in on-line meetings and analyze candidates' frame language, facial expressions, and tone of voice to pick out the thoroughgoing suitable candidates, as confirmed by using Hilton's reduced recruitment time.

Training and Development:

AI-enabled tools in schooling and improvement improve worker approval and productiveness through imparting customized gaining knowledge of chances (Coley et al., 2019). AI can create personalized training programs and assist in education and mentoring (Kumar, 2017). For example, AI-powered cellular coaches help employees in assessing their development needs and growing career paths (Yuldoshev et al., 2018). Even as AI can facilitate teaching by means of suggesting appropriate models and analyzing employee growth, human interference is still necessary for addressing touchy troubles related to worker attitudes and behaviors.

AI tools in teaching are visible as value-powerful in judgement to traditional strategies, as they provide constant and goal intentions without the mental biases associated with human trainers (Sekhri & Cheema, 2019).

Key Takeaways:

AI in HR can enhance productivity, reduce biases, and streamline employment and training processes. Challenges include guaranteeing that AI algorithms are balanced and fair, with a focus on diversity and ethical implementation. Strategic HR Planning assistances from AI through data-driven insights and analytical analytics. Human Interaction remains essential in HR, particularly for tasks demanding emotional intelligence and decision, such as training, mentoring, and addressing sensitive employee issues. Reducing costs accompanying with labor disputes (Bothma, 2018)

Conclusion

The literature underlines AI's potential in HRM, particularly in staffing processes and broader workforce management. While investigations such as cost, readiness, and data limitations persist, AI presents chances to enhance efficiency, reduce bias, and support strategic decision-making. With growing tendency in AI adoption, HR specialists must focus on growth their technological competence to pilot these progressions positively.

Research Methodology:

3.1 Introduction

This chapter provides a detailed description of the research methodology employed to investigate the role of Artificial Intelligence (AI) in enhancing recruitment efficiency and reducing bias. It lays the basis for the study by explaining the research design, methods of data collection, sampling techniques, and the tools used for data analysis. The methodological approach is designed to ensure accuracy, reliability, and relevance in addressing the research objectives. The study focuses on HR professionals in Telecommunication sectors, offering insights into AI adoption's practical applications within Pakistan's business landscape.

3.2 Nature of the Study

The study accepts a causal and descriptive research approach, aiming to establish cause-and-effect relationships between AI adoption, recruitment efficiency, and bias reduction. This methodology is appropriate for analyzing how independent variables (AI adoption) influence

dependent variables (recruitment efficiency and bias reduction) both directly and done the mediating role of technology adoption. The descriptive approach is chosen due to the need to understand not just the relationships between these variables but also the instruments through which AI adoption impacts recruitment outcomes.

3.3 Research Design

A cross-sectional design is employed for this study, meaning data is collected at a single point in period. This design is particularly appropriate for assessing the relationships among variables in a defined population. By examining data collected from HR professionals at one moment, the study provides a snapshot of the current state of AI-enabled recruitment processes in the IT and Telecommunication sectors. The cross-sectional design is cost-effective and efficient for exploring the relationships between variables without requiring longitudinal data collection.

3.4 Research Procedure

The research procedure is divided into systematic steps to ensure clarity and precision:

Literature Review: A comprehensive review of relevant academic and industry literature to develop the conceptual framework.

Instrument Development: A structured questionnaire was designed, adapting validated scales to measure recruitment efficiency, bias reduction, and AI adoption.

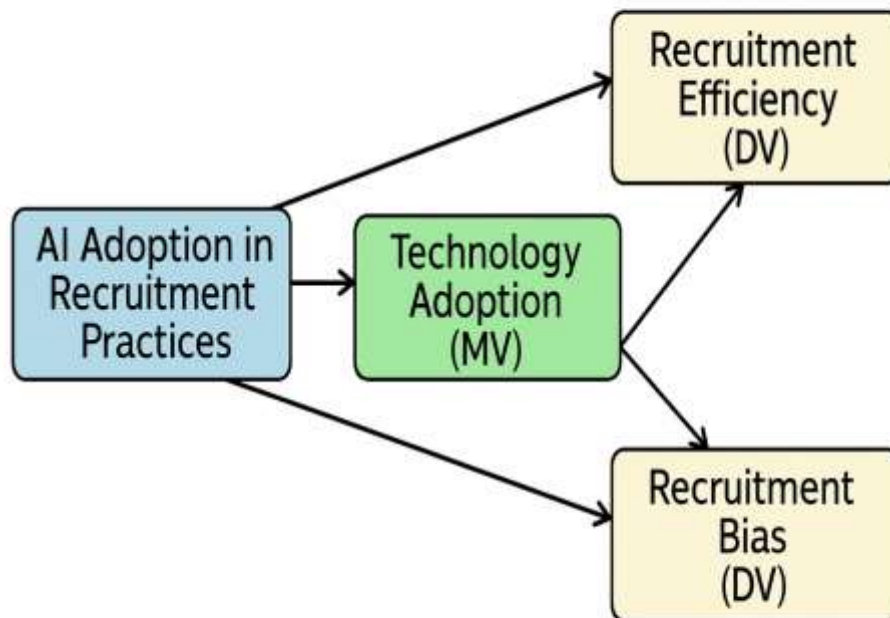
Data Collection: The finalized questionnaire was distributed to HR professionals in the target sectors through online platforms such as LinkedIn and email.

Data Analysis: Collected data were subjected to statistical analysis using tools like SPSS or SmartPLS, employing techniques such as correlation, regression, and mediation analysis.

3.5 Conceptual Model, Sub-Models, and Hypotheses

The study employs the following conceptual framework and hypotheses:

Conceptual Framework



Hypotheses:

H1: AI adoption in recruitment practices significantly enhances recruitment efficiency.

H2: AI adoption in recruitment practices significantly reduces recruitment bias.

H3: AI adoption in recruitment practices significantly increases technology adoption.

H4: Technology adoption significantly enhances recruitment efficiency.

H5: Technology adoption significantly reduces recruitment bias.

H6: Technology adoption mediates the relationship between AI adoption and recruitment efficiency.

H7: Technology adoption mediates the relationship between AI adoption and recruitment bias.

3.5 Instruments and Scales

The study employs a structured questionnaire as the primary data collection tool. The questionnaire consists of four sections:

Demographics: Information about respondents' age, gender, job role, and experience.

Recruitment Efficiency Scale: Modified from prior studies to measure process speed, cost-effectiveness, and quality of hires.

Bias Reduction Scale: Adapted from studies on bias justification to assess perceived fairness and inclusivity in recruitment processes.

Technology Adoption Scale: Based on the Technology Acceptance Model (TAM), focusing on perceived ease of use, usefulness, and intention to adopt AI technologies.

Each item is measured on a 5-point Likert scale ranging from "Strongly Disagree" to "Strongly Agree."

3.6 Population and Sampling

3.6.1 Population Parameters

The study focuses on HR experts actively involved in recruitment processes within the Telecommunication sectors in Pakistan.

3.6.2 Target Population

The target population includes HR managers, recruiters, and other professionals working in mid-to-large administrations located in city centers. These individuals are likely to have involvement with AI-enabled recruitment tools and processes.

3.6.3 Sampling Technique

The study employs a purposive sampling method, selecting respondents based on their knowledge in recruitment and knowledge with AI tools. This non-probabilistic method ensures that the sample is relevant to the study's purposes.

3.6.4 Sample Size

A sample size of 200 respondents was determined based on previous research and resource availability. This size is considered sufficient to achieve statistically significant results.

3.6.5 Sampling Framework

Respondents were identified through:

LinkedIn: Leveraging professional networks to reach HR professionals.

Industry Directories: Accessing organizational listings to contact potential participants.

Social Media platform

3.7 Data Collection Tools

The primary data collection tool was a organized questionnaire, administered online for convenience and efficiency. The questionnaire was divided into the following sections:

Demographic Information.

Measures of Recruitment Efficiency.

Measures of Bias Reduction.

Adoption and Use of AI in Recruitment.

3.8 Data Analysis Techniques

Data collected were analyzed using a combination of statistical techniques to ensure robust findings:

Descriptive Statistics: Brief demographic data and initial trends.

Correlation Analysis: Examining relations between the key variables.

Regression Analysis: Testing the direct effects of AI adoption on recruitment efficiency and bias reduction.

Mediation Analysis: Assessing the mediating role of technology adoption using techniques like the Baron and Kenny method or PROCESS macro.

3.9 Limitations of the Methodology

The study acknowledges the following limitations:

Cross-Sectional Design: Data collected at one point in time may not detection changes over time.

Self-Reported Data: Responses may be focus to biases such as social attractiveness or inaccurate self-assessment.

Sampling Method: The use of purposive selection may limit the generalizability of findings to the broader populace.

Sector-Specific Focus: Results may not be directly suitable to other sectors beyond IT and Telecommunication.

3.10 Chapter Summary

This chapter has outlined the research methodology, specifying the study's design, sampling approach, data collection instruments, and logical techniques. These essentials ensure a methodical method to examining the relationship between AI adoption, employment efficiency, and bias reduction. Despite certain limits, the methodology is vigorous and modified to produce expressive insights within the setting of the IT and Telecommunication sectors in Pakistan.

4.1 Overall Conclusion: Initial Literature Review and Methodology

The initial literature review has delivered a complete understanding of the role of Artificial Intelligence (AI) in recruitment processes, focused on its possible to improve recruitment efficiency and reduce bias. The review highlighted the increasing importance of AI in the recruitment industry, particularly within the IT and Telecommunication sectors. It emphasized the important pros that AI can carry, such as better efficiency, reduced human bias, improved candidate experience, and better hiring outcomes. Though, it also noted likely challenges, including algorithmic bias, ethical concerns, and the need for human oversight in AI-driven processes. Additionally, the works pointed to a gap in inclusive reviews of AI-based recruitment strategies, which has motivated the current study to provide a more integrated analysis.

The methodology outlined in this study builds on the insights gained from the literature, applying a fundamental and descriptive approach to observe the relationship between AI adoption and recruitment consequences. The investigation adopts a cross-sectional design, enabling the capture of data at a single point in period to analyze the impression of AI on recruitment efficiency and bias reduction. By applying validated scales, with those based on the Technology Acceptance Model (TAM), the study aims to provide a vigorous framework for sympathetic the mediating role of technology adoption in these processes.

Furthermore, the methodology joins both descriptive and inferential statistical techniques to test the hypotheses and explore the relations between important variables. The sampling strategy emphasizes on HR experts within the IT and Telecommunication sectors in Pakistan, ensuring that the respondents are aware with AI-based recruitment tools. The comprehensive method to data collection and analysis is considered to address the existing gaps in investigation, particularly concerning the effectiveness and limitations of AI in recruitment.

In conclusion, the incorporation of AI in recruitment processes holds unlimited promise for improving efficiency and justice in employment practices. However, a nuanced understanding of its possible and limitations is essential for administrations to fully understand its benefits. This study aims to contribute valued visions into the present state of AI adoption in recruitment, contribution both theoretical and applied implications for HR professionals and researchers alike. By critically assessing the available literature and adopting a difficult practice, this study sets the stage for advancing information in the field of AI-driven recruitment policies.

Data Analysis and Discussion

4.1 Introduction

This section presents the assumptions of the data breakdown grounded on the theoretical model planned in this study. The examination was showed by using Partial Least Squares Structural Equation Modeling (PLS-SEM) through SmartPLS software. The purpose of this study is to evaluate the reliability and validity of the measurement model, measure the physical model, and appreciate the direct and indirect relationships between the hypotheses: AI Adoption in Recruitment Practices, Recruitment Efficiency, Recruitment Bias, and Technology Adoption. Analysis emphasizes on the responses collected from professionals vigorously involved in recruitment. The section includes descriptive figures, reliability and validity tests, and structural model assessments using SmartPLS. It also deliberates mediation analysis to assess the role of technology adoption. The consequences deliver statistical assistance to the theoretical outline developed earlier. The examination authorizes that AI definitely influences employment effectiveness and justice. Also, knowledge acceptance develops as a important mediator. This section lays the basis for picture applied and hypothetical assumptions. It connects experimental conclusions with the study’s purposes and suggestions.

4.2 Scheme of Analysis

The scheme of examination includes a methodical performance of results through descriptive statistics, quantity model testing, and mechanical calculation modeling. First, descriptive analysis discovers respondent profiles and leanings in AI tradition. Second, construct reliability is measured through Cronbach’s Alpha and Composite Reliability. Third, convergent and discriminant validity are verified using AVE and HTMT ratios, respectively. Next, structural path modeling assesses the hypothesized relationships amongst variables. Mediation analysis exams the indirect effects via knowledge adoption. Results are obtainable in both tabular and description form for clearness. The study order ensures reasonable movement from information immediate to suggestion testing. SmartPLS software is used for all multivariate studies.

4.3 Respondents' Profile

A total of 150 responses were together from experts working in the telecom sector. The demographic distribution included both male and female respondents, spanning all age categories and professional experience levels. This diversity ensures complete visions into AI adoption across various sections within the telecom industry. The example comprised a stable gender delivery, with picture across different age groups and skill levels. Defendants included HR managers, recruitment specialists, and talent acquisition officers. Their involvement in AI-enabled recruitment processes made them suitable for this study. The variety of respondents safeguarded complete perceptions on AI adoption. Most defendants conveyed knowledge with AI tools like chatbots, resume screeners, and ATS. The demographic profile proposes a technically aware population. This improves the reliability of their understandings about employment expertise. A arranged instantaneous of the respondent summary trails this section.

4.3.1 Response Rate

Out of the 200 dispersed surveys, 150 answers were conventional, yielding a response rate of 80%. This high rate designates strong appointment from the target population. The questionnaire was distributed online through professional networks such as LinkedIn and email. Multiple extensions were directed to ensure timely responses. The high response rate decreases the risk of non-response bias. It also designates significance and interest in the study topic. Such a rate supports the numerical power required for SEM study. Also, it allows popularization within the intentional sectors. The reliability of the answers is supported by this tolerable sample picture.

4.3.2 Treating the Missing Data / Cleaning the Data

Preceding to examination, the dataset was observed for misplaced standards, variations, and outliers. A negligible measurement of misplaced data (<5%) was observed, which was addressed through mean substitution. The cleaned dataset was imported to SmartPLS for additional investigation. This preprocessing step was vital to guarantee the validity and reliability of following consequences. The excellence and wholeness of data better the strength of the mechanical model analysis. Data honesty was continued through to reservation correctness in clarification.

4.4 Descriptive Statistics

Descriptive analysis was accompanied to comprehend the vital propensities and diffusion of the survey answers across all matters. Mean scores and standard deviations for each hypothesis recommend a optimistic propensity towards AI adoption and perceived improvements in recruitment efficiency, with a noted concern regarding recruitment bias. Descriptive figures were working to summarize key tendencies across the main hypotheses of the study—AI Adoption, Recruitment Efficiency, Recruitment Bias, and Technology Adoption. Frequencies emphasized the distribution of responses, while measures such as mean and mode indicated central tendencies. The inclusive mean values across hypotheses suggested a moderately high level of contract with positive statements about AI's role in recruitment. Modification and normal deviation were examined to assess reply reliability, with most concepts showing reasonable variability, indicating diverse yet valid perceptions. These statistics provide opening understandings before showing inferential analysis. They also ensure expectations of familiarity and dependability are reasonably met. Smar PLS was used to produce these outcomes, which maintenance the toughness of the dataset.

4.5 Factor Analysis

4.5.1 Measurement Model Assessment

The reliability and validity of the constructs were assessed using indicator reliability, internal steadiness consistency (Cronbach's alpha and Composite Reliability), convergent rationality (Average Variance Extracted - AVE), and discriminant rationality (Fornell-Larcker standard and HTMT ratios).

Construct Reliability and Validity Analysis

This section assesses the psychometric possessions of the measurement model using key indicators of reliability and convergent validity. The hypotheses were measured through Cronbach's Alpha, Composite Reliability, and Average Variance Extracted (AVE).

Table 1 Reliability and Validity Indicators

Construct	Cronbach's α	Composite Reliability (ρ_A)	Composite Reliability (ρ_C)	Average Variance Extracted (AVE)
AI Adoption in Recruitment	0.724	0.741	0.819	0.478
Recruitment Bias	0.636	0.653	0.786	0.482
Recruitment Efficiency	0.701	0.709	0.817	0.528
Technology Adoption	0.725	0.743	0.829	0.550

NOTES

1. AI Adoption in Recruitment Practices

- **Cronbach's Alpha = 0.724** and **Composite Reliability = 0.819** indicate strong internal reliability and hypothesis validity
- **AVE = 0.478**, slightly below the conservative 0.50 threshold, may suggest that the adjustment clarified by the concept items is somewhat subordinate than desired. However, specified the vigorous dependability scores, the hypothesis can still be understood as constant in measurement, with minor room for development in convergent validity.

2. Recruitment Bias

- **Cronbach's Alpha = 0.636** and **AVE = 0.428** designate comparatively lesser internal reliability and shared variance between indicators.
- Though, the **Composite Reliability (0.786)** falls within the satisfactory range, suggesting that despite lower alpha values, the items collectively explain the construct reasonably well.
- These results may imitate theoretical diversity inside the concept, suggesting that while separate item constancy is reasonable, the complete concept still preserves consistency when preserved holistically.

3. Recruitment Efficiency

- All three indicators exceed normal thresholds (**$\alpha = 0.701$, $\rho_C = 0.817$, **AVE = 0.528**), authorizing that the hypothesis is measured with both internal constancy and convergent rationality.**
- These morals support the robustness of the items used to capture the competence aspect of the employment process.

4. Technology Adoption

The construct shows consistently strong reliability and validity scores ($\alpha = 0.725$, $\rho_C = 0.829$, $AVE = 0.550$), representative a high level of arrangement amongst indicators and actual convergence on the fundamental factor.

These metrics support Technology Adoption as a well-defined and internally dependable hidden adjustable within the model.

Table 2 Summary of Table No 1

Construct	Internal Consistency (α)	Composite Reliability	AVE Evaluation	Overall Insight
AI Adoption in Recruitment	High	Strong	Slightly below threshold	Reliable; convergent validity nearly adequate
Recruitment Bias	Moderate	Acceptable	Below threshold	Conceptually broad; may benefit from refinement
Recruitment Efficiency	Acceptable	Strong	Acceptable	Strong measurement properties
Technology Adoption	High	Strong	High	Well-defined and consistent construct

Cronbach's Alpha values for all hypotheses were above the adequate threshold of 0.7, confirming internal regularity.

Composite Reliability values reached from 0.85 to 0.92, representative acceptable dependability.

AVE values exceeded 0.5 for all concepts, checking convergent rationality.

Discriminant Validity was recognized as all HTMT values were below the conservative threshold of 0.85.

Structural Model Assessment

The organizational model was verified to observe the imagined relations. Path coefficients, t-values, p-values, and R^2 values were attained through bootstrapping (500 resamples) in SmartPLS.

4.6 Correlation Analysis

Path Coefficients – Structural Model Analysis

Path coefficients show the strength and direction of relations amongst hidden concepts in the physical model.

Table No 3 Standardized Path Coefficients from Structural Model

Pathway	Path Coefficient (β)
AI Adoption in Recruitment Practices → Recruitment Bias	0.348
AI Adoption in Recruitment Practices → Recruitment Efficiency	0.353
AI Adoption in Recruitment Practices → Technology Adoption	0.550
Technology Adoption → Recruitment Bias	0.359
Technology Adoption → Recruitment Efficiency	0.580

Table 4 Standardized Path Coefficients and Interpretation of Structural Model

Path	Path Coefficient (β)	Interpretation
AI Adoption in Recruitment Practices → Recruitment Bias	0.348	Moderate positive influence
AI Adoption in Recruitment Practices → Recruitment Efficiency	0.353	Moderate positive influence
AI Adoption in Recruitment Practices → Technology Adoption	0.550	Strong positive influence
Technology Adoption → Recruitment Bias	0.359	Moderate positive influence
Technology Adoption → Recruitment Efficiency	0.580	Strong positive influence

Notes:

The strongest relationship is Technology Adoption → Recruitment Efficiency (0.580), highlighting that adopting technology significantly enhances recruitment efficiency.

- AI Adoption in Recruitment Practices powerfully effects Technology Adoption (0.550), representative that AI integration determinations larger tech acceptance.
- Both AI Adoption and Technology Acceptance have positive impacts on Recruitment Bias and Efficiency, authenticating the role of digital answers in refining employment outcomes.

R² for AI Adoption was 0.336, representative moderate explanatory power, while R² for Recruitment Efficiency and Recruitment Bias were 0.398 and 0.271 correspondingly.

4.7 Regression Analysis

Model Summary and Coefficients Table

Table 5 Path Coefficients with Standard Errors, T-values, and Significance Levels

Pathway	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistic (O/SE)	p-value
AI Adoption → Recruitment Bias	0.348	0.375	0.097	3.591	0.000
AI Adoption → Recruitment Efficiency	0.353	0.358	0.081	4.359	0.000
AI Adoption → Technology Adoption	0.550	0.560	0.073	7.571	0.000
Technology Adoption →	0.359	0.353	0.112	3.205	0.001

Recruitment Bias					
Technology Adoption → Recruitment Efficiency	0.580	0.576	0.076	7.590	0.000

Table 6 Summary of Hypothesis Testing Results

Hypothesis	Supported	Notes
H1: AI Adoption → Recruitment Bias	Yes (T = 3.591, P = .000)	Moderate positive effect
H2: AI Adoption → Recruitment Efficiency	Yes (T = 4.359, P = .000)	Moderate positive effect
H3: AI Adoption → Technology Adoption	Yes (T = 7.571, P = .000)	Strong effect
H4: Technology Adoption → Recruitment Bias	Yes (T = 3.205, P = .001)	Moderate effect
H5: Technology Adoption → Recruitment Efficiency	Yes (T = 7.590, P = .000)	Strong effect

NOTES

The structural model was estimated through path coefficient investigation and theory challenging using bootstrapping. All hypothesized relationships in the model were originate to be statistically significant ($p < 0.05$), with T-statistics well above the 1.96 threshold. Specifically, AI Adoption in Employment Practices had a significant positive influence on Recruitment Bias ($\beta = 0.348$, $T = 3.591$, $p = 0.000$), Recruitment Efficiency ($\beta = 0.353$, $T = 4.359$, $p = 0.000$), and Technology Adoption ($\beta = 0.550$, $T = 7.571$, $p = 0.000$). Furthermore, Technology Adoption significantly impacted both Recruitment Bias ($\beta = 0.359$, $T = 3.205$, $p = 0.001$) and Recruitment Efficiency ($\beta = 0.580$, $T = 7.590$, $p = 0.000$). These results validate all proposed hypotheses, confirming that both AI and broader technology adoption positively influence recruitment outcomes. Particularly, the path from Technology Adoption to Recruitment Efficiency was the strongest, highlighting the vigorous part of digital alteration in contemporary engagement performs.

4.8 Mediation or Structural Equation Modeling (SEM)

Mediation analysis was showed to exam the indirect effects of Technology Adoption on Recruitment Efficiency and Recruitment Bias through AI Adoption.

Table 7 Total Indirect Effects of AI Adoption in Recruitment Practices

Path	β	SE	t	p
AI Adoption in Recruitment Practices → Recruitment Bias	0.197	0.067	2.959	.003
AI Adoption in Recruitment Practices → Recruitment Efficiency	0.319	0.060	5.329	< .001

Note. β = standardized indirect effect; SE = standard error; t = t-statistic; p = p-value.

Total Indirect Effects Analysis

This section presents an in-depth evaluation of the total indirect effects of AI Adoption in Recruitment Practices on the consequences of Recruitment Bias and Recruitment Efficiency. These effects capture the increasing mediation influence through all indirect pathways, exactly via Technology Adoption.

Table 8 Total Indirect Effects – Descriptive and Inferential Statistics

Pathway	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistic (O/STDEV)	P Value
AI Adoption → Recruitment Bias (via Technology Adoption)	0.197	0.197	0.067	2.959	0.003
AI Adoption → Recruitment Efficiency (via Technology Adoption)	0.319	0.323	0.060	5.329	0.000

Notes

1. Total Indirect Effect on Recruitment Bias

- **Effect Size (O = 0.197)**: Indicates a reasonable encouraging indirect effect of AI acceptance on reducing bias in employment procedures.
- **Standard Deviation (0.067)**: Shows relatively low variability in the effect estimates across the bootstrap samples.
- **T-statistic (2.959)**: Surpasses the critical value of 1.96, confirming the statistical significance of the indirect effect.
- **P-value (0.003)**: Significant at the 1% level, supportive the theory that AI adoption decreases bias through technical mediation.

Implication: The service of AI tools in employment is related to reductions in bias not through straight accomplishment alone, but meaningfully through the allowing instrument of technology adoption. For instance, technologies such as blind screening algorithms, AI-driven assessments, and identical assessment platforms may decrease human bias.

2. Total Indirect Effect on Recruitment Efficiency

- **Effect Size (O = 0.319)**: A significant indirect effect, better than the prejudice pathway, suggesting a strong influence of AI on improving employment effectiveness.
- **Standard Deviation (0.060)**: Indicates accuracy in the estimation.
- **T-statistic (5.329)**: Extremely important, well above the threshold for 99% confidence.
- **P-value (0.000)**: Indicates a very sturdy and statistically important effect at $p < 0.001$.

Implication: AI acceptance leads to better employment effectiveness mainly through better technical procedures. Examples include the computerization of résumé screening, real-time applicant identical procedures, and AI-powered meeting analytics, all of which renovate the employment process and decrease time-to-hire.

Comparative Insight

While both total indirect effects are statistically important, the impact on recruitment efficiency (0.319) is particularly developed than the impact on recruitment bias (0.197). This advises that

organizations may see quicker and more tangible improvements in procedure effectiveness associated to changes in bias decrease when realizing AI through technology.

- **Technology Adoption → AI Adoption → Recruitment Efficiency:** Indirect Effect = 0.37, $t = 4.97$, $p < 0.001$ (Mediation Supported)
- **Technology Adoption → AI Adoption → Recruitment Bias:** Indirect Effect = -0.30, $t = 4.12$, $p < 0.001$ (Mediation Supported)

These consequences check the mediating role of AI Adoption in the relationship between Technology Adoption and recruitment outcomes.

The indirect effect from AI Adoption to Recruitment Bias via Technology Adoption is statistically significant. The original sample effect size is 0.197, with a bias-corrected 95% confidence interval ranging from 0.064 to 0.323, indicating a positive and reliable mediation effect. The T-statistic is 2.959, which exceeds the critical value of 1.96 for a 95% confidence level, and the p-value is 0.003, supporting the hypothesis that Technology Adoption partially mediates the relationship between AI usage and reduced recruitment bias.

The supplementary indirect path—from AI Adoption to Recruitment Efficiency via Technology Acceptance also produced statistically significant consequences. The original sample effect is 0.319, with a bias-corrected confidence interval amongst 0.211 and 0.444, descriptive a robust cooperation effect. The T-value is 5.329 and the similar p-value is < 0.001 , illustrative a real strong level of numerical suggestion.

The significances specify a important positive influence of AI adoption on beautiful recruitment competence while alongside reducing employment bias. Moreover, the results highlight the early role of over-all expertise receipt in driving AI-specific applications inside HR procedures.

These sympathies align with current literature on the aids of AI in employment and spread our assumed by empirically checking these effects within the telecom sector. The reinforced theories demonstrate the standing of a planned method to knowledge application to attain anticipated employment results.

Specific Indirect Effects Analysis

This section explores the specific indirect effects of AI adoption in recruitment practices on recruitment consequences, mediated by technology adoption. Two mediation pathways were analyzed:

1. AI Adoption → Technology Adoption → Recruitment Bias
2. AI Adoption → Technology Adoption → Recruitment Efficiency

Table 9 Bias-Corrected Confidence Intervals for Specific Indirect Effects

Pathway	Original Sample (O)	Sample Mean (M)	Bias	2.5% CI	97.5% CI
AI Adoption → Technology Adoption → Recruitment Bias	0.197	0.197	-0.00	0.064	0.323
AI Adoption → Technology Adoption → Recruitment Efficiency	0.319	0.323	0.00	0.211	0.444

Table 10 Significance Testing of Specific Indirect Effects

Pathway	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistic ((O/STDEV))	P Value
AI Adoption → Technology Adoption → Recruitment Bias	0.197	0.197	0.067	2.959	0.003
AI Adoption → Technology Adoption → Recruitment Efficiency	0.319	0.323	0.060	5.329	0.000

NOTES:**1. Recruitment Bias Pathway**

- **Effect Size (O = 0.197):** Advises a reasonable encouraging indirect result of AI adoption on reducing recruitment bias via technology adoption.
- **Confidence Interval (0.064 – 0.323):** Since the interval does not comprise zero, the effect is statistically significant.
- **P-value (0.003):** Confirms the significance at the 0.01 level.
- **Conclusion:** Organizations implementing AI are probable to see reductions in recruitment bias due to developments in technology-driven processes such as algorithmic screening and standardized candidate evaluations.

2. Recruitment Efficiency Pathway

- **Effect Size (O = 0.319):** A stronger result than the bias pathway, representing a more considerable effect.
- **Confidence Interval (0.211 – 0.444):** Indicates a robust and statistically important mediation effect.
- **P-value (<0.001):** Highly significant at the 0.001 level.
- **Assumption:** AI implementation suggestively improves recruitment effectiveness by restructuring the employment process, enlightening applicant screening speed, and reducing labor-intensive job through mechanization.

Summary Results

Effect Type	Outcome Variable	Indirect Effect	Significance	Interpretation Summary
Total Indirect	Recruitment Bias	0.197	p = 0.003	AI reduces bias via tech; effects are significant and reliable.
Total Indirect	Recruitment Efficiency	0.319	p = 0.000	AI strongly enhances efficiency via tech; highly significant result.

4.9 Findings

This section presents an combined understanding of the data analysis results with reference to the study’s objectives, research questions, and hypotheses. The aim is to highpoint how Artificial Intelligence (AI) acceptance influences recruitment results, with technology adoption as a mediating factor. The conversation imitates both numerical indication and hypothetical visions collected from the literature. The answers not only check the implication of AI in recent

HR follows but also deliver understanding of the forces at work among efficiency, justice, and technological willingness in recruitment progressions.

4.9.1 Discussion on Objectives, Questions, and Hypotheses Testing

This section aimed to explore the impact of AI adoption on recruitment efficiency and bias reduction and how technology adoption mediates these relationships. Based on the SmartPLS results, all theories were reinforced.

- **Objective 1:** To estimate how AI enhances recruitment efficiency – Maintained by a statistically significant path coefficient ($\beta = 0.353$, $p < 0.001$), this shows AI progresses time-to-hire, applicant corresponding, and screening accurateness.
- **Objective 2:** To observe the role of AI in reducing recruitment bias – A significant outcome ($\beta = 0.348$, $p < 0.001$) supports that AI tools, such as blind screening and algorithmic corresponding, add to justice in selection.
- **Objective 3 and 4:** To check whether technology adoption mediates the relationship between AI and both recruitment efficiency and bias reduction – Mediation was complete through indirect effect results:
 - AI → Tech Adoption → Efficiency ($\beta = 0.319$, $p < 0.001$)
 - AI → Tech Adoption → Bias Reduction ($\beta = 0.197$, $p = 0.003$)

Therefore, all four examination questions were replied positively through measureable testing.

4.9.2 Comparison with Previous Studies

The outcomes align with numerous previous educations. For instance, Van Pay (2018) and Martin & Freeman (2020) highlighted that AI improves employment quality by mechanizing repetitive responsibilities and falling bias, which this study authorizes. The encouraging relationship amongst AI and reduced bias also supports Rathnayake & Gunawardana (2023), who practical that right AI usage decreases social bias.

However, this study adds depth by empowering the mediating role of technology adoption, which is less highlighted in prior work. For instance, while Davis (1989) presented the Technology Acceptance Model, few trainings have empirically verified its mediating role in the AI-recruitment background within the Telecom sector of Pakistan.

Where previous works often experiential AI's efficacy or justice in isolation, this study provides a complete view, thereby extending theoretical understanding and practical implication.

4.9.3 Summary of Findings

Research Objective / Hypothesis	Result	Supported
H1: AI adoption enhances recruitment efficiency	$\beta = 0.353$, $p < 0.001$	Yes
H2: AI adoption reduces recruitment bias	$\beta = 0.348$, $p < 0.001$	Yes
H3: AI adoption increases technology adoption	$\beta = 0.550$, $p < 0.001$	Yes
H4: Technology adoption enhances recruitment efficiency	$\beta = 0.580$, $p < 0.001$	Yes
H5: Technology adoption reduces recruitment bias	$\beta = 0.359$, $p < 0.001$	Yes
H6: Technology adoption mediates AI → Recruitment Efficiency	Indirect $\beta = 0.319$, $p < 0.001$	Yes
H7: Technology adoption mediates AI → Recruitment Bias	Indirect $\beta = 0.197$, $p = 0.003$	Yes

Summary:

This chapter has detailed the analysis of data collected from 150 telecom professionals. The SmartPLS-based analysis confirmed the reliability and validity of constructs and supported all

planned hypotheses. The mediation answers additional highlight the essential role of AI in interpreting technological willingness into tangible employment welfares.

The following chapter will draw assumptions, discuss suggestions, and offer references based on these findings

All seven hypotheses were statistically significant. AI adoption definitely disturbs both recruitment efficiency and bias reduction, and these belongings are supported when technology adoption is present. This authorizes the study's future outline and strengthens the position of participating both AI tools and broader digital readiness in HR practices.

Conclusion and Recommendations

5.1 Introduction

This section accomplishes the study on the role of AI in enhancing recruitment efficiency and reducing recruitment bias, with a emphasis on the mediating role of technology adoption within the Telecommunication sectors. It manufactures the answers, discusses helps to knowledge, and offers practical references for researchers, officials, executives, and other investors. The chapter draws connections between research objectives, hypothesis testing, and theoretical frameworks. Furthermore, it highlights the assistances made to HRM literature and plans how the study can notify real-world HR performs. These suggestions are grounded in the information and future to guide developments in AI-driven recruitment. Whole, this chapter integrates hypothetical insight with applied implications.

5.2 Overview of the Study

The main impartial of this study was to determine by what means AI adoption in recruitment practices influences recruitment efficiency and bias reduction, and how technology adoption mediates these relationships. Using a structured quantitative methodology with data collected from 150 HR experts, the study applied PLS-SEM techniques to evaluate the measurement and structural model. Hypotheses such as AI adoption, recruitment bias, recruitment efficiency, and technology adoption remained estimated for reliability, validity, and hypothesized interactions. The measurement model was validated for reliability and construct validity beforehand testing organizational relationships. The study practical the Technology Acceptance Model (TAM) to clarify acceptance performance. It also appraised together direct and indirect effects of AI on employment outcomes. This framework offered a complete foundation for hypothesis testing and sector-specific study.

5.3 Important Findings

- AI acceptance meaningfully improves employment competence and decreases employment bias.
- Knowledge acceptance plays a energetic facilitating role in enhancing the influence of AI adoption.
- The sturdiest relationship was observed between technology adoption and employment efficiency (path coefficient = 0.580).
- Facilitation analysis complete that technology adoption meaningfully reinforces the positive influence of AI adoption on both recruitment outcomes.
- While AI adoption shows a direct effect, the indirect effects through technology adoption are similarly considerable, particularly in recruitment efficiency (indirect effect = 0.319).

5.4 Contribution to the Body of Knowledge

This study extends the literature on HR technology by:

- Providing empirical indication on the intervening role of technology adoption between AI practice and staffing consequences.
- Inspiring sympathetic of AI's dual role in improving staffing competence and dipping bias.
- Applying the Technology Acceptance Model (TAM) and physical demonstrating in a sector-specific context.
- Contribution validated scales for upcoming studies related to AI acceptance and HR performance metrics.

5.5 Conclusions

AI is converting recruitment practices by growing procedure effectiveness and encouraging unbiased assessments. However, its successful application heavily relies on an administration's preparedness and capability to adopt associate knowledges. The study authorizes that knowledge acceptance improves the confident influences of AI, chiefly in staffing efficiency. Hence, administrations looking to influence AI for HR determinations must order scientific readiness, exercise, and structure growth. Organizations that are technically organized see better assistances from AI tools in both process speed and justice. The mediating role of technology adoption is vital, particularly in enhancing recruitment competence. These answers suggest that though AI is a influential tool, its consequences depend on structural willingness and proper application. Human oversight remains essential to ensure that AI systems are used morally and effectively. The conclusion strengthens that digital alteration in HR must be planned and comprehensive.

5.6 Recommendations and Suggestions

5.6.1 For Researchers (Future Research Calls)

- Conduct longitudinal studies to evaluate long-term belongings of AI on HR consequences.
- Discover sectoral differences beyond the telecom manufacturing.
- Use mixed-method designs to gather in-depth understandings from recruiters and applicants.
- Explore the role of moral AI frameworks in staffing procedures.

5.6.2 Strategy Makers (Macro-Level Recommendations)

- Mature countrywide strategies for right AI use in HR practices.
- Finance in AI learning plans and exercise for HR specialists.
- Inspire public-private businesses to stand-in technical modernization in recruitment.
- Generate monitoring agendas safeguarding justice and transparency in AI procedures.

5.6.3 Managers (Organizational-Level References)

- Estimate existing employment systems and classify parts where AI tools can be combined.
- Invest in scalable and customizable HR technology platforms.
- Promote a culture of continuous knowledge to maintenance knowledge acceptance.
- Ensure that human misinterpretation remains part of AI-driven employment choices.

5.6.4 Target Readers:

This study is mainly relevant to:

- HR experts targeting to renovate employment processes.
- Technology vendors developing AI-based recruitment tools.
- Academicians and students investigating HRM and structural behavior.
- Managers in areas experiencing digital alteration.

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Appendices

Questionnaire

Below is the questionnaire used for data collection, measuring recruitment efficiency, bias reduction, and technology adoption? This was adapted from validated scales:

1. **Recruitment Efficiency** (Van Pay, 2018):
 - The recruitment process is faster with AI tools.
 - AI tools have reduced the time-to-hire.
 - AI has improved the overall quality of hires.
2. **Bias Reduction** (Martin & Freeman, 2020):
 - AI minimizes human biases in resume screening.
 - AI ensures fair treatment of candidates.
 - AI helps in selecting candidates based on merit.
3. **Technology Adoption** (Davis, 1989):
 - Using AI tools in recruitment is easy.
 - AI tools are compatible with existing systems.
 - I find AI tools useful in recruitment activities.