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**THE INTEGRATION OF ARTIFICIAL INTELLIGENCE INTO RECRUITMENT:
EFFECTS AND APPLICATIONS IN PRACTICE ON THE EXAMPLE OF WAAPE
CO. LTD. IN UGANDA**

Master's Thesis

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I have written this Master's thesis independently. Any ideas or data from other authors or sources have been fully referenced.

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ABSTRACT

This thesis examines the integration of Artificial Intelligence into recruitment, effects, and applications in practice, focusing on Waape Co. Ltd, a tech-driven recruitment firm in Uganda. Amidst the growing adoption of Artificial Intelligence in Human Resource Management, the study explores how AI improves recruitment efficiency while critically addressing challenges such as data privacy, algorithmic bias, and the risk of diminishing human judgment. Utilizing a qualitative case study approach, primary data was gathered through ten semi-structured interviews with Waape staff across various roles. Thematic analysis of this data revealed that Waape benefits from AI with reduced time-to-hire, improved candidate matching, and streamlined administrative tasks. However, challenges remain, particularly in maintaining data integrity and ensuring fairness in AI-driven decisions while preserving crucial human elements in hiring, such as cultural fit.

Additionally, the study considers Waape's strategies for mitigating bias in AI, including structured interview methods and bias-awareness training. This research enhances the understanding of AI's role in recruitment, offering insights for organizations in emerging markets. The findings highlight AI's transformative potential while advocating for its careful integration with human oversight to achieve ethical and effective hiring outcomes.

Key Words: Artificial Intelligence, Human Resource Management, Recruitment

CERCS: S266 and S212, Sociology of labour, sociology of enterprise, and Industrial psychology

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1. Introduction

In an increasingly interconnected and digital world, businesses are constantly under pressure to evolve. Competition is no longer limited to local markets, as globalization and emerging technologies reshape industries and work environments (Erixon, 2018). Companies must adopt innovative practices and technologies, including managing people, to remain competitive.

HRM is a critical area that encompasses activities such as workforce planning, recruitment, training, and organizational development (Zang & Ye, 2015). People are a company's most valuable asset, and recruiting the right individuals is vital for achieving long-term strategic goals (Ombata & Wamwayi, 2024). Traditionally, recruitment processes were manual, time-consuming, and paper-heavy. However, the digitalization of recruitment, through online platforms and now AI-powered systems, is gradually transforming these processes (Collings et al., 2018).

Over the past few years, researchers have become increasingly interested in the intersection of HRM and technology. More specifically, there is growing interest in how AI can support and enhance recruitment processes (Galanaki et al., 2019). Technologies such as automated screening tools and predictive analytics are being explored to reduce inefficiencies and improve hiring decision-making. However, this shift also raises concerns about losing the human element in recruitment (Bondarouk & Brewster, 2016).

AI is now seen as one of the most transformative tools in modern HR, especially regarding recruitment (Upadhyay & Khandelwal, 2018). AI does not just streamline tasks; it redefines them. As a broad discipline, AI encompasses various forms such as intelligent software, bots, and learning algorithms (George et al., 2019), and its applications stretch beyond computer science into fields like linguistics and cognitive psychology.

The concept of artificial intelligence has a long history, having been formally introduced in 1956. According to Russell and Norvig (2016), contemporary applications of AI in recruitment primarily focus on automating repetitive tasks, enhancing candidate matching, and deriving insights from extensive datasets. This thesis, however, shifts the emphasis away from robots and hardware to explore the implementation of AI-driven software within the HR processes at Waape Co. Ltd.

Problem Statement

Recruitment processes today are still largely human-driven. Recruiters often manually review CVs, screen applicants, communicate with candidates, and manage interview logistics (Collings et al., 2018). While this personal approach is valuable, it is also highly time-consuming and vulnerable to human error and unconscious bias (Yiga & Wandiba, 2017). These limitations can reduce the effectiveness of hiring decisions and may result in missed opportunities, especially in fast-paced industries like tech startups.

For a growing company like Waape, which operates in a competitive digital economy, efficient and unbiased hiring practices are essential. However, academic literature has not kept pace with technological advancements in AI-assisted recruitment (Bondarouk & Brewster, 2016). Even more recent studies point out that much of the academic focus still fails to reflect how AI is applied in workplace scenarios (Shahbaz, 2020). There is a persistent gap in understanding how emerging technologies reshape day-to-day recruitment work and whether they serve as support systems or disruptive forces (Stone et al., 2015; Bondarouk & Brewster, 2016).

Given this context, a deeper investigation into how AI tools are practically used within companies like Waape and what challenges or benefits they bring is timely and necessary.

Purpose of the Study

The purpose of this study is to explore how AI technologies are currently being used within traditional recruitment processes, specifically through the lens of Waape Co. Ltd. The research aims to identify the stages of recruitment where AI tools are most effectively applied and assess the impact these tools have on process efficiency, candidate experience, and decision quality.

To provide a structured analysis, the study incorporates Breaugh's (2008) recruitment process model and uses it as a framework for evaluating AI implementation. This approach enables a practical exploration of how AI interacts with traditional recruitment stages and whether it contributes to better organizational outcomes.

Research Questions

To guide the investigation, the following research questions were formulated:

- RQ1: What is the existing state of AI in the traditional recruitment process?

- RQ2: What is the impact of AI on the traditional recruitment process?

Delimitations

This research focuses on a company actively using AI tools in its recruitment processes, with Waape Co. Ltd serving as the primary case study. As a result, organizations that are not yet using AI or only plan to adopt it in the future are not included in the empirical sample. The study does not explore AI in other HR functions, such as performance management or payroll. Instead, the emphasis remains solely on AI's role in recruitment.

2. Literature Review

This chapter aims to provide a theoretical foundation for understanding how AI can be integrated into recruitment practices, with a focus on its relevance for a technology-oriented company like Waape Co. Ltd. The review begins by discussing HRM, then moves on to explore the traditional recruitment process, the evolution of online recruitment, the role of AI, and finally the application of AI in recruitment.

2.1 Human Resource Management

Human Resource Management has evolved into a strategic organizational function, going far beyond its original focus on administrative tasks or labour cost control. HRM is now widely viewed as a driver of competitive advantage, particularly through the acquisition and development of a skilled, motivated, and adaptable workforce. According to Bagga and Srivastava (2014), HRM refers to the processes involved in attracting and nurturing talent in alignment with a company's mission, vision, and goals. Jepsen and Grob (2015) build on this by emphasizing HRM as a strategic framework that leverages organizational culture, structure, and people management practices to retain a committed and capable workforce.

For this study, HRM is the processes and strategies through which an organization attracts, develops, and retains talent to meet evolving business needs. At Waape Co. Ltd, a rapidly growing tech company, this means continuously managing the acquisition of digital and technical competencies, aligning team capabilities with innovation goals, and ensuring a positive candidate and employee experience throughout the recruitment lifecycle.

Key HRM functions include recruitment, training, employee relations, performance management, and organizational development (Zang & Ye, 2015). While traditionally human-driven, these processes are now increasingly supported by digital tools and platforms, which aim to optimize efficiency, transparency, and strategic alignment. In dynamic sectors like technology, where rapid innovation is essential, HRM also plays a vital role in fostering agility and responsiveness to talent market changes (Wang & Surlenty, 2024).

Moreover, HRM has shifted from merely operational to a core part of business strategy. As Wright and Atkinson (2019) noted, modern HR practices are now considered valuable organizational assets. Employees are no longer just resources but a company's most critical

enablers. This is especially relevant for startups and scale-ups like Waape, where attracting the right talent early can significantly influence long-term business outcomes.

2.1.1 Recruitment in Human Resource Management

Within HRM, recruitment holds a central position. It is the gateway through which organizations connect with potential employees and has significant implications for business success. Taylor and Collins (2000) emphasize that recruitment research has expanded recently, especially around how it shapes applicant behaviours and organizational perceptions.

Stoilkovska, Ilieva, and Gjakovski (2015) define recruitment as identifying and attracting a pool of qualified candidates for current or anticipated job openings. As the starting point of employee engagement, recruitment has a cascading effect on all subsequent HRM functions, from onboarding and development to retention and performance.

Schreurs, Derous, and Van Hooft (2009) argue that recruitment is the foundation upon which other HR processes depend. This view is echoed by Amadu (2014), who warns that poor recruitment decisions can result in significant financial and operational setbacks for a company. Effective recruitment is paramount for a company like Waape, where the quality of hires directly impacts product development and client delivery.

The growing competition for top talent, particularly in the tech sector, has made traditional recruitment approaches less effective. As Taylor and Collins (2000) and Budhwar et al. (2022) point out, organizations can no longer rely solely on conventional methods or standard job postings. Instead, they must adopt more strategic and innovative approaches to sourcing candidates, including integrating emerging technologies like AI. This trend is especially relevant at Waape, where differentiation in recruitment processes can be the key to attracting candidates with niche skills.

Therefore, it is critical for companies to remain agile and informed about recruitment trends and to be open to rethinking how they attract and engage potential talent. This requires balancing leveraging new technologies and maintaining human-centred practices that reflect the company's values and culture.

2.1.2 Selection in Human Resource Management

The selection phase follows recruitment and involves identifying the most suitable candidate from a previously established applicant pool. According to Amadu (2014) and Stoilkovska et al. (2015), this process begins once the organization has attracted potential candidates, and it needs to determine which individual best fits the job requirements and organizational culture. Amadu likens the selection process to assembling a jigsaw puzzle, carefully picking the right piece from many that do not fit.

At Waape, where recruitment is often aimed at acquiring top-tier technical talent, selection traditionally relies on standard methods such as interviews. However, there is a need to incorporate non-traditional methods, such as digital assessments and AI-based evaluation tools, to enhance objectivity and reliability (Bondarouk & Fisher, 2020).

Equity and fairness in selection are also emphasized. As Stoilkovska, Ilieva, and Gjakovski (2015) note, every applicant should have an equal chance of being considered. Waape shares this principle, particularly as it scales and seeks to maintain ethical hiring practices.

Standard selection techniques include pre-selection filters, structured interviews, and evaluation centres. The effectiveness of these methods is typically measured against three key criteria: reliability, validity, and utility. For example, Moser (2005) describes using axes of job performance and team dynamics to identify potential “false positives” or “false negatives” candidates who either underperform or exceed expectations despite initial impressions.

In smaller firms like Waape, experienced hiring managers or a designated recruiter often make final selection decisions. However, larger organizations may delegate this responsibility to a panel of stakeholders to minimize bias and ensure a comprehensive assessment. This collaborative approach aligns with Waape’s evolving practices, particularly as it integrates AI tools to support but not replace human judgment.

2.1.3 The Traditional Recruitment Process

The traditional recruitment process has been interpreted in varying ways by different scholars, and no universal model defines it. Acikgoz (2019) suggests that recruitment can be analysed from the organization’s and the job seeker’s perspectives. However, most frameworks emphasize one perspective, often missing the whole picture.

Despite the model diversity, common stages typically include identifying job vacancies, analysing the role, creating job descriptions, and outlining desired qualifications (Mueller and Baum, 2011; Thebe and Van der Waldt, 2014). These foundational steps remain relevant today, including at Waape, where recruitment processes are evolving but still grounded in these essentials.

Among the proposed models, Breugh's (2008) five-step recruitment framework stands out for its comprehensive structure and its integration of both organizational and applicant perspectives. This model begins with defining recruitment objectives, such as how many positions need to be filled and what qualifications are sought, followed by strategy development, which addresses how and where the organization will reach potential candidates.

The third stage involves recruitment activities, choosing methods, channels, and timing. From there, the model incorporates the job applicant's viewpoint, considering their interest in the role, expectations, and decision-making factors. The final stage is recruitment results, which reflect how well the process met the original objectives.

At Waape, Breugh's model is a valuable reference for evaluating how AI might integrate into each stage. The company is transitioning from manual processes to more tech-enabled solutions, particularly in early-stage job posting, pre-screening, and candidate communication.

Alternative models exist, such as those proposed by Thebe and Van der Waldt (2014), who present an 11-step model based on previous recruitment literature, adding procedural detail to each phase, ranging from vacancy identification to final evaluation, and Mueller and Baum (2011), who offer a 12-step process that includes job analysis, multiple interview rounds, in-workplace testing, and reference checks.

While these models vary in complexity, they share the same core principles. However, Breugh's model is especially relevant for this thesis due to its broader academic adoption, dual-perspective approach, and applicability to contemporary recruitment challenges like those faced by Waape.

2.2 The Concept of Artificial Intelligence (AI)

AI has long been a subject of academic and technical exploration. However, only in recent years has it become a transformative force in organizational operations, including HR and

recruitment (Budhwar et al., 2022). Understanding AI begins with its terminology. The word "artificial" refers to something artificial and not naturally occurring, while "intelligence" is more complex to define (Wang & Surlenty, 2024).

Although definitions vary, AI is generally described as the ability of machines or software to mimic cognitive functions such as learning, reasoning, and decision-making. Alsaif and Sabih Aksoy (2023) define intelligence as the capacity to make well-timed generalizations from limited data. Chen and Ma (2025) highlight planning, adapting, and problem-solving traits.

For this study, AI is defined as the capability of machines or systems to process information, conclude, and make decisions in ways that approximate human reasoning. This definition aligns with Waape's current use of AI, which focuses on software applications that can screen candidates, match CVs to job criteria, and handle bulk communication, without the need for robotic hardware or physical AI agents.

AI can take many forms, including robots, computer programs, and learning algorithms (Albassam, 2023). Zang and Ye (2015) identify key application areas such as natural language processing, robotics, machine perception, automated reasoning, and gaming environments. These implementations suggest that AI is not confined to any discipline but can be adapted for various use cases, including HR and recruitment.

At Waape, AI centres on intelligent recruitment software to sort applications, rank candidates based on job relevance, and engage applicants through automated messages. This aligns with the literature on AI's data interpretation and task automation capabilities. The company's experience reflects a broader industry trend in which AI augments rather than replaces human decision-making, offering tools that increase efficiency while supporting strategic hiring goals.

2.2.1 Online Recruitment

In recent years, rapid advancements in technology, especially the rise of the internet, have significantly reshaped the field of HRM. Among the most transformative changes has been the widespread adoption of online recruitment, also called e-recruitment. This digital shift has revolutionized how companies attract, engage, and evaluate potential candidates (Koivunen et al., 2022).

At Waape Co. Ltd, online recruitment has played a critical role in managing large volumes of applicants more efficiently, especially as the company expands and scales its workforce. The transition from paper-based methods to digital systems has enabled HR teams to reduce administrative workloads while reaching a broader audience online.

According to Koivunen, Ala-luopa, Olsson, and Haapakorpi (2022), e-recruitment is among the most prevalent non-traditional methods for finding and attracting talent. It is widely favoured for being cost-effective, faster, and more scalable than traditional recruitment. However, it also introduces new challenges. For instance, the volume of applications can become overwhelming, especially for smaller HR departments, raising concerns about managing and assessing applications effectively (Okolie & Irabor, 2017).

Larger organizations and increasingly SMEs like Waape are adopting electronic tools to streamline recruitment processes. These tools include automated job postings, online application portals, resume databases, and AI-powered application screening software (Galanaki et al., 2019). However, Dhamija (2012) also warns of potential disadvantages, such as the exclusion of candidates who are less digitally literate or have limited internet access, which could lead to unintentional biases.

Despite these drawbacks, online recruitment remains a foundational step in Waape's efforts to modernize its hiring process. It sets the stage for deeper technological integrations, such as the application of artificial intelligence, which is explored in the next section.

2.2.2 The Application of AI in Recruitment

Artificial intelligence has emerged as one of the most promising technologies in the field of recruitment, enabling companies like Waape to enhance the speed, objectivity, and accuracy of their hiring processes. According to Upadhyay and Khandelwal (2018) AI's rise in HRM has marked a new era of automation, particularly in functions that traditionally involved repetitive, manual labour.

One key area where AI is transforming recruitment is through information extraction, a process in which AI systems automatically scan resumes and online profiles to extract relevant details such as education, work history, and skill sets (Russell & Norvig, 2016). This is especially useful for growing companies like Waape, where high application volumes make manual screening time-intensive and error-prone.

AI-based applicant ranking systems are also becoming popular. These systems use machine learning algorithms, trained on recruiter input, to score and rank candidates based on their suitability for specific roles (Faliagka et al., 2012). This helps Waape quickly identify top talent and reduces the time needed for initial evaluations.

AI's presence extends further through AI-powered chatbots, which act as virtual recruitment assistants. These bots can interact with candidates via email, text, or web-based messaging platforms, providing updates, answering questions, and maintaining engagement throughout recruitment (Upadhyay & Khandelwal, 2018).

More advanced AI applications, such as video interview analysis, have also been developed. Tools like HireEz use AI to assess candidate responses in video interviews by analysing facial expressions, voice tone, and body language, and HireVue to compare candidates to a benchmark of top performers and generate recommendations for recruiters.

Another benefit of AI in recruitment is the ability to gather insights about candidates' personality traits and emotional states. By analysing content from blogs, social media, or LinkedIn profiles, AI can assess personality dimensions that would traditionally be observed during interviews (Faliagka et al., 2012). This preliminary profiling helps recruiters at Waape form a more holistic understanding of candidates before they enter deeper stages of the process.

2.3 Benefits of AI-Based Recruitment

Integrating AI into recruitment offers numerous benefits, especially for companies like Waape navigating rapid growth and high talent demands. As Ulfa, Prihantono, and Annas (2022) argue, AI-based systems help reduce recruitment costs, streamline workflows, and increase efficiency. Functions like resume screening, candidate matching, and pre-screening can now be handled with minimal manual input.

At Waape, these AI tools are seen to reduce operational strain and improve hiring accuracy. AI enables recruiters to access a larger pool of candidates and filter them more effectively, leaving less paperwork and freeing time for more strategic tasks (Upadhyay & Khandelwal, 2018). These systems can also analyse publicly available data to assess candidates' values, communication style, and emotional intelligence factors that play a significant role in hiring decisions (Faliagka et al., 2012).

One advantage is AI's ability to eliminate routine tasks, allowing recruiters to focus on high-value interactions and strategic planning. For instance, recruiters can spend more time engaging with top-tier candidates than manually processing all applications. Abou Hamdan (2019) refers to this functionality as a "Resume Scorer," which uses AI to rank candidates, identify the most suitable ones, and save time during selection.

AI also improves candidate communication. Automated systems can send personalized updates, schedule interviews, and provide feedback to applicants. This not only enhances the candidate experience but also builds employer branding. At Waape, maintaining a responsive and informative communication channel is vital for attracting and retaining skilled applicants in the competitive tech sector.

Upadhyay and Khandelwal (2018) highlight that AI tends to reduce bias in recruitment, as screening decisions are based on data rather than subjective impressions. Furthermore, rejected candidates can receive automated feedback, helping them understand areas for development and increasing transparency in the process.

Finally, AI facilitates multi-channel engagement, enabling recruiters to connect with candidates across email, websites, and social media platforms. This multi-platform outreach is particularly relevant for digitally active companies like Waape, which seeks to attract tech-savvy professionals from diverse backgrounds.

2.3.1 Challenges of AI-Based Recruitment

Although various studies have highlighted how emerging technologies and big data enhance the efficiency and precision of human resource management (Zang & Ye, 2015), some scholars argue that HR analytics might only be a temporary phenomenon unless technological advancements become fully integrated into ongoing management decision-making processes (Rasmussen & Ulrich, 2015). A significant set of challenges associated with AI-driven recruitment relates to personal privacy issues and the management of sensitive data. This concern affects both HR professionals and users of online HRM platforms, especially regarding how data is collected, analysed, and shared (Bondarouk & Fisher, 2020).

According to Wright and Atkinson (2019), it is nearly impossible for organizations to succeed without some level of adaptation to new technologies. The capacity to incorporate technological innovations directly influences an organization's competitiveness in the market.

Prior research has demonstrated that embracing new technology improves organizational performance.

Another critical challenge inherent to AI recruitment systems is the risk of unconscious discrimination during hiring. Russell and Norvig (2016) highlight various potential adverse outcomes of AI implementation, such as job displacement due to automation and using AI for unethical purposes. Specifically, recruitment is vulnerable to automation-driven job losses, as AI tools increasingly replace traditional roles, potentially exacerbating unemployment rates. While AI excels at identifying talent, specific recruitment tasks like negotiating offers, assessing cultural fit, and building rapport still require the nuanced judgment that only humans can provide (Upadhyay & Khandelwal, 2018).

2.3.2 Biases in Recruitment

Literature on recruitment biases identifies multiple factors that can influence hiring decisions. Upadhyay and Khandelwal (2018) emphasize that AI systems can be programmed to mitigate unconscious biases by focusing on candidates' skills rather than personal attributes such as name, gender, or age, which are familiar sources of discrimination. They note that addressing talent through unbiased AI approaches significantly benefits the hiring industry.

However, Okolie and Irabor (2017) reveal through their research that unconscious biases remain prevalent in recruitment, even within large organizations. These biases can significantly affect hiring outcomes, often disadvantaging minority ethnic groups who face systemic barriers in accessing employment opportunities.

Albassam (2023) stresses the importance of recognizing and understanding these biases, manifesting as positive or negative predispositions toward specific candidates. A particular concern is when recruiters base their final hiring recommendations on subjective opinions rather than objective evidence. Moreover, in some cases, these opinions may not be those of the recruiters themselves but influenced by others, underscoring the complexity of bias in recruitment decision-making (Ulfa et al., 2022). To combat these issues, companies have adopted strategies such as structured hiring protocols and targeted training for those involved in hiring decisions to reduce the impact of bias (Bendick & Nunes, 2012).

3. Methodology

3.1 Research Philosophy

In academic research, five core philosophical stances are commonly referenced: positivism, critical realism, interpretivism, postmodernism, and pragmatism (Turyahikayo, 2021). Interpretivism was identified as the most suitable framework for this study. This thesis focuses on understanding the roles of organizations and individuals within the recruitment process, particularly how technological tools influence their participation and experiences. It recognizes that the specific context in which the study is conducted, including the interview setting and participants involved, can significantly affect the findings.

Interpretivism emphasizes grasping the world through the lived experiences and perspectives of those involved. It supports the notion that research should be sensitive to context and seeks to understand deeper meanings behind human actions (Pervin & Mokhtar, 2022). This contrasts with positivism, which assumes an objective reality that can be measured using statistical tools. This study does not rely on numerical data but rather on qualitative insights, so positivism was deemed inappropriate (Yilmaz, 2013). Moreover, interpretivism advocates for interviews as a key data collection method, aligning well with the design of this research.

3.1.1 Research Strategy

Research strategies typically fall into two main categories: qualitative and quantitative. Qualitative research relies on non-numerical data, focusing on meanings conveyed through language, whereas quantitative research centres on data represented in numbers (Creswell, 2019). A qualitative strategy was selected as this study aims to collect detailed and nuanced information rather than statistical data.

Collis and Hussey (2014) note that qualitative data is often fluid and dynamic, making it a good match for interpretive approaches. Data for this type of research can be gathered through interviews or open-ended questionnaires, allowing for theory development from observed themes (Bell & Bryman, 2007). In contrast, quantitative research uses structured tools such as graphs and statistical models to analyse precise data sets (Collis & Hussey, 2014).

According to Saunders et al. (2009), qualitative methods are particularly effective when studying individual behaviours, motivations, and values. They are well-suited for exploring the reasons behind actions or decisions. Bell and Bryman (2007) also highlight the flexibility of

qualitative methods, which allow researchers to collect richer, more in-depth data. Given these strengths, qualitative research was chosen as the appropriate strategy for this study, primarily as it explores the integration of AI in HR processes. This topic chat requires firsthand insights from specific organizations, which cannot be captured through numerical analysis alone.

3.1.2 Research Approach

Three principal approaches guide the research logic: deductive, inductive, and abductive (Okoli, 2023). The main distinction lies in the starting point: deductive reasoning begins with existing theory, inductive reasoning starts with data, and abductive reasoning combines both aspects.

In the deductive model, researchers test hypotheses derived from existing literature (Casula et al., 2021). Inductive reasoning, on the other hand, involves collecting data to uncover patterns or phenomena, forming new theoretical insights (Collis & Hussey, 2014). The abductive approach blends these two by first identifying patterns in data and then using them to build or adjust theoretical models (Timmermans & Tavory, 2012).

For this study, an inductive approach was adopted. This approach was chosen due to the exploratory nature of the research, which investigates how technology, particularly artificial intelligence, affects recruitment. By starting with data collection, the study allowed for an open-ended exploration of how AI shapes HR practices, with theoretical conclusions drawn from the insights gathered.

3.1.3 Literature Review Method

This research used a thematic approach to reviewing literature, identifying and organizing key issues related to the application of AI in HRM, particularly within recruitment. The thematic review was selected because it offers a structured way to synthesize prior studies and highlight major trends or gaps relevant to the topic (Maguire & Delahunt, 2017).

Themes were established by examining recurring topics and concepts across various scholarly articles. These themes were then grouped to align with areas of interest most relevant to this thesis. The literature search focused on foundational and recent publications to ensure that the review reflected current developments while acknowledging established theories. Sources were primarily accessed through Primo and Google Scholar. To ensure academic rigor, journal

credibility was assessed using rankings from Scimago Journal and Country Rank, as well as the Academic Journal Guide.

This literature review not only helped in understanding what has already been studied in the field but also clarified where potential research gaps exist, areas this thesis aims to address by contributing new insights on the role of AI in modern recruitment practices.

3.2 Data Acquisition

Various data collection techniques can be employed when carrying out qualitative research. Among the most frequently used are interviews, observations, and focus groups (Gill et al., 2008). For this study, interviews were chosen as the preferred method because they provide direct, in-depth perspectives from professionals within the industry, unlike observations, which require prolonged periods of watching and documenting actions, something impractical given the focus on AI integration in recruitment. Interviews allowed for detailed discussions and opportunities for follow-up. Similarly, focus groups were deemed less suitable since the aim was to gather individual insights rather than group dynamics. Overall, interviews offered richer qualitative content and better aligned with the study's aims than any quantitative method could provide.

The data collection process began with selecting the target company that matched the research criteria, followed by outreach efforts to arrange interview sessions. Interviews were structured around three main components. The first part gathered the general background of the interviewees. The second and third parts were derived from themes identified in the literature review, focusing specifically on how AI is used in HR practices and the associated benefits and challenges in recruitment (Alshenqeeti, 2014). A detailed interview guide is included in Appendix 1.

Interviews were conducted after completing a thorough literature review, ensuring the study was grounded in prior research. Before recording each session, consent was obtained from participants. Afterward, all interviews were transcribed and prepared for analysis according to the chosen method, concluding the data collection phase.

The company selected for participation in this study was identified due to its proactive integration of AI within its recruitment processes. This encompassed the deployment of AI tools for hiring, interviewing, and candidate selection. Consequently, the research was able to

obtain valuable insights from a diverse array of individuals engaged with this technology. Since the adoption of AI in human resources is still a relatively recent trend in Uganda, this study specifically examines its application within a single company in this context.

According to Collis and Hussey (2014), interviews are a primary method for collecting firsthand information from selected individuals, particularly in interpretivist research. This technique enables exploration of personal experiences, beliefs, and interpretations. In this study, semi-structured interviews were conducted, which meant that a set of predefined questions guided the discussion while still allowing flexibility for participants to elaborate on their responses.

This research conducted a total of ten semi-structured interviews to gather expert opinions on the influence of AI in recruitment, involving the company founder, an HR manager, two software engineers, two recruiters, a global talent acquisition partner, an onboarding specialist, a diversity and inclusion manager, and a product manager. All interviews were conducted via Zoom using the same set of questions to ensure consistency. Each interview was conducted in English, and a summary of the interviews, including their duration, is provided in Table 1.

Table 1

Interview of Participants

Interview	Method	Date	Length of interview
1	Zoom	7/12/24	46
2	Zoom	8/12/24	44
3	Zoom	6/12/24	40
4	Zoom	9/12/24	43
5	Zoom	6/12/24	38
6	Zoom	9/12/24	40
7	Zoom	10/12/24	37
8	Zoom	7/12/24	39
9	Zoom	10/12/24	45

10	Zoom	10/12/24	43
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Source: Field data by the author (2024)

3.3 Data Analysis Strategy

A thematic analysis approach was employed to examine the qualitative data collected during this research. This method was chosen because it helps us better understand people's experiences and viewpoints, which fits with the goal of this study. Thematic analysis enables researchers to systematically process and interpret textual data, particularly interview transcripts, by identifying recurring patterns or "themes." Its adaptable nature makes it suitable for a wide range of research contexts (Maguire & Delahunt, 2017). This study's themes that emerged from the analysis form the core elements for interpretation and are compared against the theoretical framework and the selected analytical model.

Braun and Clarke's (2006) six-phase model was followed for the thematic analysis, as shown in Table 2 below. This structured process helps transform raw qualitative data into meaningful insights.

Table 2

Phases of thematic analysis

Phase	Description
1. Getting familiar with the data	Transcribe interviews, read through the material repeatedly, and note down preliminary impressions.
2. Creating initial codes	Highlight notable features across the dataset and categorize them using systematic codes.
3. Identifying themes	Cluster related codes together to start forming broader themes.
4. Reviewing themes	Assess whether the themes accurately reflect the coded data and the entire dataset.
5. Defining and naming themes	Refine and clearly define each theme, summarizing the narrative they represent.
6. Writing the report	Finalize the analysis by selecting illustrative quotes and aligning findings with the research question and existing literature.

Source: Phases to thematic analysis according to Braun and Clarke (2006)

Once the interviews were conducted, the audio recordings were transcribed into text and thoroughly reviewed to ensure familiarity with the material. Initial codes were then generated, with some based on existing knowledge and the research focus such as traditional recruitment, AI, automation, time efficiency, technology, human resources, and talent acquisition.

During the analysis, additional codes began to emerge organically, including personality traits, communication, screening, judgment, resources, and skills. In the third stage, these codes were grouped into categories that could represent themes. The fourth step involved refining these groupings, ensuring they were coherent and representative of the underlying data.

The next step consisted of defining each theme precisely and assigning them appropriate labels that reflect their significance within the context of AI in recruitment. In the final phase, the themes were integrated into the main body of the analysis, supported by illustrative examples and aligned with the central research question (Braun & Clarke, 2006).

An overview of the identified themes and how they emerged from the analysis is presented in Table 3, which summarizes the results of the thematic analysis process and connects each theme to the collected data.

Table 3

Summary of the identified themes and their indicators

Themes	Identification	Description
Effectiveness in the recruitment process	Communication with candidates, time management, data and information, speed of recruitment, and automation of administrative and routine tasks	This theme describes how AI can be utilized within the recruitment process to make it more effective and better than traditional methods.
The application of AI in recruitment	Automation, talent acquisition, screening, technology, personality traits, and AI are used in traditional recruitment areas.	This theme describes how AI can be applied in different areas within the traditional recruitment process to help automate different tasks.

Human error and biases	Biases, judgments, personal opinions, favouritism for personal connections, and stereotypes.	This theme describes the human errors in the traditional recruitment process model, such as biased opinions.
Benefits and challenges of using AI	Cutting down routine and administrative tasks, speeding up recruitment, and training machines and humans.	This theme describes the benefits and challenges that the usage of AI in recruitment brings, as well as how they should be considered when implementing AI in recruitment.

Source: Created by the author based on (Braun & Clarke, 2006)

In qualitative studies, demonstrating the accuracy and consistency of the research is essential. Credibility concerns how convincingly the research findings, interpretations, and conclusions reflect the reality of the phenomena being studied. Factors such as unrepresentative sampling, flawed methodology, or incorrect data interpretation can all compromise the study's trustworthiness (Collis & Hussey, 2014). Dependability, however, relates to whether the data gathered accurately captures the research subject. It also refers to whether the study's results could be replicated under similar conditions. If the same methodology were applied again, ideally, the findings would remain consistent (Collis & Hussey, 2014).

It is important to note that researchers' perspectives, personal beliefs, and judgments can subtly shape the study's direction and outcomes. In this work, the authors' decisions influenced the structure of the theoretical background and how the findings were interpreted. To maintain a reasonable level of objectivity, the research methodology and process are documented in as much detail as possible. A pattern was noticed regarding repeatability: after enough interviews, the same responses and key points started to emerge repeatedly, suggesting consistency in the collected data.

Gaining the trust of participants is crucial to maintaining integrity in research. As emphasized by Collis and Hussey (2014), anonymity is key when participants are assured that their identities will not be revealed; they are more likely to speak openly, and their input can be

handled responsibly. In this research, all interviewees are referred to only as “professionals,” and no identifying information, such as names or company affiliations, has been disclosed. This was done to protect participants’ privacy and ensure ethical compliance throughout the study.

4. Findings

This section summarizes the insights gathered from participants, categorized under themes identified through thematic analysis: recruitment efficiency, AI's role in hiring, its advantages and drawbacks, and the influence of human biases and mistakes.

4.1 Strengths and Shortcomings of Traditional and AI Recruitment Methods

All ten professionals acknowledged certain advantages of conventional recruitment methods. A key benefit they unanimously pointed out was the "human connection," the ability to engage with candidates on a personal level. Such interpersonal exchanges were viewed as vital for clear communication and mutual understanding, both among recruiters and between recruiters and candidates.

“The emotional connection and human interaction cannot be replaced... people feel secure with what they already know.” (Professional 2)

Another common observation from six participants was that traditional recruitment practices are well-established and time-tested. Standard methods such as in-person interviews and structured assessments have been used reliably for decades, giving recruiters a foundation of proven approaches and existing literature to support their decisions. According to one interviewee, many HR teams hesitate to abandon methods that have consistently produced good results.

While no strong opposition to traditional recruitment was noted, some professionals were more enthusiastic in defending its strengths. Three respondents highlighted multiple advantages, while the rest briefly touched on its merits but shifted focus to its shortcomings. This suggests a subtle division, where some still value traditional processes, while others lean more toward criticizing their limitations. The most widely discussed drawback among all participants was the slow and drawn-out nature of traditional hiring. The process is often too lengthy for both candidates and recruiters, leading to delays and inefficiencies that hinder the overall experience.

“It takes too long, many candidates feel it is outdated.” (Professional 8)

“It is an old-fashioned system; applicants have to jump through too many hoops.”
(Professional 1)

This extended timeframe frustrates candidates and limits recruiters' ability to make timely and well-informed decisions. Six interviewees noted that follow-up communication often falls through due to time constraints, with recruiters rarely able to notify applicants who did not make the cut.

A recurring issue mentioned by several professionals was candidates misrepresenting themselves through exaggerated CVs, making it harder to assess real qualifications. Two participants also expressed concern that traditional recruitment tends to ignore passive candidates, those who are not actively job-hunting but may be highly qualified. Additionally, one professional noted that organizations often neglect applicants already in their databases, instead focusing on new submissions for each role.

The presence of unconscious biases was another critical shortfall. Some interviewees pointed out that hiring decisions could be influenced by factors such as age, gender, ethnicity, or even past employment at prestigious companies. These biases lead to skewed selections and can ultimately harm workplace diversity.

“If you always hire people who ‘fit in’ with a certain mold, you are stifling diversity and weakening team performance.” (Professional 7)

While most professionals recognize AI's potential in hiring, many agree that its full strategic integration remains a work in progress.

“We are just getting started with it, it is a learning process.” (Professional 5)

Six professionals reported using AI primarily during the initial stages, especially for screening resumes and identifying suitable candidates. AI tools like HireVue were said to analyse job descriptions and match them with applications based on keywords, language patterns, and contextual clues. Four professionals mentioned sourcing candidates via platforms like LinkedIn and Facebook, while others processed applications submitted directly to job listings.

Some systems incorporated personality assessments to evaluate candidates' soft skills and compatibility with the role. Regarding shortlisting, one interviewee explained that the AI could produce a ranked list of potential hires, allowing HR to review the top matches. However, they also emphasized that over-relying on these rankings could lead to a narrow talent pool, as the system might learn to exclude diverse profiles based on previous selection behaviour.

All interviewees indicated that they used AI-based tools to communicate with applicants. Some used chatbot-style systems that gathered candidate data and generated applications on their behalf. These bots often stayed in touch, providing updates or answering common queries.

“Even a simple check-in like, ‘Hey, your interview is in a week, any questions?’ can enhance the candidate experience, and AI can automate that.” (Professional 7)

Several professionals noted that these systems also provided post-application feedback, explaining why candidates are not selected and offering improvement tips. This helped make the process more transparent and constructive.

Most participants agreed that AI tools significantly reduce the time spent on administrative tasks, freeing recruiters to focus on engaging with top-tier talent. AI was said to streamline evaluations, scoring, and candidate qualification, making it easier to begin the hiring process with high-potential applicants.

Five professionals highlighted how AI speeds up recruitment timelines, benefiting applicants and HR teams.

“It reduces time and cost, improves candidate experience, and helps identify hidden talent pools.” (Professional 4)

Another benefit was AI’s ability to minimize human bias, offering fairer hiring decisions. Two professionals noted that AI could help uncover overlooked candidates, improving the diversity and quality of hires. One respondent linked AI use directly to gaining a competitive edge in talent acquisition:

“Leveraging AI lets us tap into talent more effectively than competitors.”
(Professional 5)

However, several participants stressed the importance of maintaining a human element. While AI can handle many tasks, it lacks emotional intelligence skills like empathy remain uniquely human.

“HR is fundamentally about people, and no matter how advanced it gets, AI cannot replicate empathy.” (Professional 8)

Two professionals emphasized that organizations must integrate AI strategically and assess whether it genuinely adds value to their hiring process.

Some of the challenges noted included difficulties adapting to AI tools and scepticism from staff. Effective use of AI requires the proper infrastructure and skills, and improper implementation can introduce bias.

“Poorly designed AI systems can be just as biased as humans.” (Professional 6)

Since HR is often rooted in traditional practices, organizations must manage change carefully and ensure their teams are equipped to work alongside AI technology.

Table 4

AI Tools Used Across HR Recruitment Stages at Waape Co. Ltd

HR Stage	AI Tools Used
Initial Screening	HireVue – used by Waape to analyse candidate video responses, screen applications, and assess communication and behavioural cues.
Candidate Engagement	iCIMS – enables interaction with applicants after applications are received, streamlining communication and data collection.
Application Acknowledgment	Manatal – automates confirmation emails/messages to acknowledge receipt of applications, keeping candidates informed.
Re-Engagement	Carv – used to track past applicants, gauge their interest, and maintain updated candidate records for future opportunities.

Source: Created by the author

4.2 Integrating AI into the Traditional Recruitment Framework

Several scholars (Breugh, 2008; Mueller & Baum, 2011; Thebe & Van der Waldt, 2014) have conceptualized the traditional recruitment process in structured stages that organizations have followed for decades. Breugh's (2008) model, in particular, offers a comprehensive step-by-step approach to recruitment, yet it does not take into account the technological advancements of recent years, especially the rise of AI in human resource management. This section revisits each primary phase of the traditional model, proposing how AI tools could be implemented or adapted within the context of Waape's recruitment practices.

The first phase in most recruitment frameworks is to establish the hiring objectives. This involves defining the roles to be filled, identifying the competencies required, and aligning these with broader organizational goals. At Waape, where strategic alignment is critical for efficient team scaling in a fast-moving tech startup, this stage remains largely human-led.

Several employees at Waape emphasized that AI tools are not developed to determine or set recruitment goals autonomously. Instead, AI is perceived as a support mechanism that can execute recruitment tasks more efficiently, as humans have defined the objectives. As one recruiter put it:

“We as a team define what we are looking for first AI helps us execute, not decide.” (Professional 3)

This view echoes the understanding that organizational values, role-specific nuances, and contextual business goals are beyond the current capability of AI systems. While machine learning can process and act on data, it lacks the capacity for strategic foresight rooted in company culture and mission. Hence, the formulation of recruitment objectives at Waape remains firmly within human purview. AI may assist in achieving these goals, but it cannot replace the initial vision-setting phase.

The next step in the recruitment cycle involves deciding how to attract the right candidates. This includes choosing the channels of communication, formulating messaging, and identifying target talent pools. According to Breugh (2008), this strategic planning defines not only the “who” but also the “how” and “where” of recruitment.

At Waape, while AI plays a role in amplifying communication and reaching wider talent pools, primarily through automated email responses and social media integrations, the responsibility of determining what message to convey and to whom still lies with human professionals.

From the interviews, it became evident that staff at Waape view AI as a tactical tool rather than a strategic one. Decisions around which platforms to use, the tone of job adverts, and the selection of candidate personas require a level of judgment, creativity, and contextual understanding that AI does not yet possess. A member of the HR team noted:

“AI helps us cast a wider net and manage responses, but the tone and targeting come from us. That is the human part.”

Therefore, although Waape leverages AI to streamline outreach and boost visibility, the strategy that guides these tools originates from human insight and organizational alignment. This supports the view that while AI can refine execution, the core strategic decisions such as which applicant demographics to prioritize or which employer branding to emphasize must still be guided by experienced professionals.

AI can provide supplementary support during strategy formulation by offering insights into the most efficient pathways to fulfil established recruitment goals. However, human oversight remains indispensable in this phase. At Waape, respondents emphasized that while AI could help optimize or refine parts of the process, it is not designed to replace human strategic planning.

One interviewee pointed out:

“AI can take over some aspects of HR, but it is not meant to replace every function, especially not the ones requiring judgment or alignment with our culture.”
(Professional 5)

Interestingly, none of the professionals interviewed highlighted strategy development as a primary area for AI application. This could be due to the relatively early stage of AI integration in HR functions in Uganda or the fact that such strategic decisions require a deep understanding of organizational dynamics, which AI cannot yet replicate. One participant elaborated:

“We mainly use AI for more technical tasks like pre-selection, but interviews and assessments still need that human interaction.” (Professional 7)

Among all the stages of recruitment, the operational tasks carried out under recruitment activities emerged as the area where Waape employees found AI to be most effective. This aligns with findings from earlier literature (Amadu, 2014; Wright and Atkinson, 2019), which suggested that AI can provide considerable efficiency gains when applied to routine, repetitive tasks.

At Waape, the early stages of recruitment, such as candidate screening and preliminary communication, are supported by AI-powered systems. The interview data widely supported this. One team member noted:

“AI fits best in the early recruitment phases, it handles bulk tasks where there is less need for direct human judgment.” (Professional 8)

One of the key areas where Waape leverages AI effectively is in the pre-screening process with HireVue. The AI systems evaluate CVs and candidate profiles through keyword matching and various algorithmic filters, swiftly reducing the candidate pool. Additionally, the software can integrate behavioural and personality metrics into this matching process. As one respondent noted.

“Our system evaluates both technical qualifications and soft traits to match applicants against job specs. It is fast and very insightful.” (Professional 6)

These AI tools also rank applicants by suitability, which simplifies decision-making for human recruiters. This echoes academic positions, such as those of (Leong, 2013; Faliagka et al. 2012), who argue that AI can streamline shortlisting by generating ranked candidate lists based on matching criteria.

“AI allows us to skip the manual screening phase, it highlights the best matches, and we take it from there.” (Professional 1)

However, not all staff expressed full confidence in the system’s reliability without human validation. Concerns were raised about ensuring the accuracy of AI-generated recommendations.

“While the software is helpful, we are still running tests to understand how dependable it is, we want to know it is improving our hiring, not just making it faster.” (Professional 4)

Another innovation mentioned was talent rediscovery, an area often overlooked in traditional recruitment. AI enables Waape to revisit past applicants who were not hired but may be suitable for current roles. One staff member emphasized:

“We use AI to resurface strong applicants from past cycles, people we might otherwise forget about.” (Professional 3)

This approach saves time and allows the company to reuse previously gathered data, enhancing recruitment efficiency.

Communication with candidates is another area where AI tools are adding value. At Waape, chatbots and automated messaging systems are used to maintain contact with applicants, update them about their application status, and even provide basic information about the job.

Recruiters acknowledged that clear and timely communication, previously a challenge due to time constraints, has significantly improved with AI.

“The system communicates with applicants in real time, answers FAQs, and keeps them engaged. It does not have to be a person responding.” (Professional 2)

This advancement aligns with earlier research, which found that poor communication during hiring can discourage qualified applicants (Carroll et al., 1999; Barber, 1998). AI helps fill this gap by maintaining consistent and scalable engagement.

“It is amazing how smooth it is. Candidates do not mind talking to a bot, if they get the information they need.” (Professional 6)

Recruitment processes must also consider the applicant’s experience and perception. Acikgoz (2019) emphasizes that the process is about employer decision-making and how applicants perceive the recruitment journey.

Traditionally, this includes factors like the credibility of the employer’s message, how much attention the applicant gives to the role, and what they expect from the company (Breaugh, 2008). In Waape’s case, integrating AI into the process has altered some of these dynamics.

While applicants may initially be wary of automated systems, Waape’s team noted that clear and responsive communication, even if facilitated by AI, helps build trust and keeps candidates interested.

An effective recruitment process must account not only for the hiring organization's needs but also for job applicants' perspectives and experiences. Acikgoz (2019) argues that understanding the motivations and preferences of applicants is critical for creating a balanced, fair, and successful recruitment experience. This perspective was echoed in interviews at Waape, where many professionals highlighted the importance of ensuring that AI implementations also enhance the candidate experience.

One HR team member emphasized:

“The journey should be simple and straightforward if candidates feel it is too complicated to apply, they might give up entirely. We believe AI can make the process more candidate-friendly and even allow applicants to express more of who they are.” (Professional 2)

AI can be instrumental in offering candidates opportunities to share more than just the content of their CVs. At Waape, AI tools are being explored to help applicants present themselves more fully through video introductions, personality assessments, or dynamic application forms. These elements add depth to a candidate's profile, allowing for a richer, more holistic understanding of their suitability.

“We have moved beyond the traditional CV. Candidates can now record themselves, showcase their personality, and give us more than just qualifications. That is important to us.” (Professional 1)

Another strength of AI at this stage, AI's ability to deliver timely information to applicants. Rather than waiting for human responses, candidates can receive instant updates, helping them decide early in the process whether the role is a good match. This not only improves transparency but also saves time for both parties.

“It helps filter uninterested applicants sooner they can drop out if it does not suit them. That way, we focus only on the most committed candidates.” (Professional 4)

AI also allows for faster, more accurate evaluation of candidates, enhancing the recruitment pipeline's speed and reliability. Poor recruitment practices, some interviewees noted, reflect poorly on employer branding and can deter top talent.

“If the process is inefficient, it affects more than just hiring; it affects how candidates view your company. That is why AI can help us maintain a smoother, more professional experience.” (Professional 7)

The conclusion of the recruitment process is where human judgment and AI support intersect. At Waape, final hiring decisions are always made by people, but AI plays a significant supporting role in communicating outcomes and closing the

loop with candidates. For instance, chatbots or automated systems notify applicants of results, reducing delays and improving communication consistency.

“We use the same AI system that helped us communicate early on to give updates after decisions are made. It keeps everything transparent and timely.”
(Professional 6)

In cases where applicants are not selected, AI can even generate tailored feedback, helping them understand areas for improvement. While AI cannot replace the human decision-making that goes into choosing a candidate, it can ensure that results are communicated in a structured, timely, and respectful manner.

“Ultimately, tools are only as good as how you use them. AI helps us get closer to the outcomes we want, but the final call is still ours.” (Professional 6)

Determining whether recruitment has been successful hinges on whether the chosen candidate aligns with the original objectives of the role. For Waape, this often includes skill alignment, cultural fit, adaptability, and long-term potential.

“What matters is whether AI is helping us hire better people. That is the goal, not just doing it faster.” (Professional 7)

Although digital tools have transformed many aspects of human resource management, research has only recently started to evaluate their effectiveness in achieving broader organizational goals (Stone et al., 2015). Within Waape, the use of AI in recruitment is selective and targeted. It is not applied to every phase, but in specific areas where automation adds measurable value.

“You do not need AI for everything. You need it where it helps, where it is needed.” (Professional 3) Companies should take a strategic approach, identify clear needs, and evaluate whether AI provides a genuine solution or simply adds complexity. The overarching goal is not to rush toward automation for its own sake, but to ensure that AI contributes meaningfully to the company’s purpose, efficiency, diversity, or quality of hire.

“If we reduce recruitment to efficiency alone, we lose the strategic value of HR. It is about finding the best people, not just doing it faster.” (Professional 7)

For some, effectiveness has taken on new forms. One professional highlighted how AI now allows them to process CVs across multiple languages, considerably widening their talent reach:

“We can now process applications in a dozen languages like French, Spanish, German. That is something we could never do manually.” (Professional 5)

This example illustrates how AI has enabled processes that were once highly time-consuming and resource-intensive to be done faster and more effectively. AI tools have drastically reduced the time to hire from over a month to less than a week (Wright & Atkinson, 2019).

Still, as several Waape staff noted, effectiveness is context dependent. Different companies will define it in different ways depending on their goals and the kinds of talent they seek.

“Each company has its own needs. AI will help differently depending on what you are solving for, whether it is speed, quality, or candidate experience.” (Professional 7)

4.3 Organizational Readiness and Long-Term Integration of AI

While the potential benefits of AI in recruitment are increasingly recognized, successfully implementing these technologies depends heavily on a company’s financial and strategic readiness. At Waape, several team members pointed out that although there is widespread interest in AI, some companies lack the resources or clarity of purpose to adopt it effectively.

“Many companies want to use AI without fully understanding what for they may not need the speed or quality improvements AI offers, and they often do not have the technical capacity to support it.” (Professional 5)

This comment highlights a fundamental issue: adopting AI without clearly defined goals or infrastructure can result in poor integration and minimal return on investment. Research by (Zang & Ye 2015; Rasmussen & Ulrich, 2015) supports this concern, emphasizing that unless AI becomes embedded in strategic decision-making, it risks being reduced to a short-lived trend.

At Waape, this is addressed by treating AI adoption as a long-term transformation process involving both technical development and human learning. Employees stressed the importance of training machines and people to work together effectively.

“We need to think long-term, what do we need to change within the company? And how do we train both machines and staff to identify talent that supports the company’s future success?” (Professional 3)

“Teaching AI systems takes time, but we believe their use will grow as long as we provide enough quality data and structure.” (Professional 8)

This suggests that effective AI integration is less about replacing human roles and more about building complementary systems that enhance what humans already do well. Organizations must prepare for this shift by investing in technical infrastructure and internal upskilling.

Importantly, professionals at Waape emphasized that AI outcomes are context-specific. A solution that works well in one organization might not be suitable in another. The key lies in customizing tools to fit needs, workflows, and cultures.

“You cannot expect a single AI solution to work the same way everywhere. It must be tailored to the organization.” (Professional 7)

The interviews with Waape staff reaffirm many findings in prior literature (Okolie & Irabor, 2017; Tewari et al., 2024), particularly around the practical benefits of AI in streamlining recruitment operations. One of the most apparent advantages is automating time-consuming, repetitive tasks, especially at the early stages of candidate screening.

“AI helps remove the manual steps so we can move straight to interviews. It saves us much time.” (Professional 2)

“It simplifies the screening process by creating shortlists of top candidates, saving us from having to go through hundreds of applications.” (Professional 3)

As noted in Abdullahi et al. (2022) AI also expands access to wider talent pools and reduces paperwork. Leong (2018) highlights automated candidate ranking as another significant gain, which Waape professionals echoed:

“AI is very effective for ranking top applicants and helping us prioritize who to engage with, but it does not replace the personal side; recruitment still requires that human touch.” (Professional 8)

AI's ability to maintain consistent communication with candidates was another strong theme. Through automated messaging systems and chatbots, Waape keeps candidates informed and engaged throughout the process, which would be difficult for a small HR team to manage manually.

“We are seeing more use of AI in communication; it helps us respond quickly and keep candidates in the loop.” (Professional 2)

Candidate engagement was a particular focus for one respondent, who stressed the need to maintain interaction throughout the process, not just when delivering final decisions.

“Candidates do not want to feel ignored. They need touchpoints along the way, and AI helps with that, even by just checking in before an interview.” (Professional 7)

Despite the promising benefits, several challenges were raised regarding AI adoption. At Waape, adaptability was one of the most frequently mentioned concerns. Wright and Atkinson (2019) argue that a company's ability to integrate new technologies successfully is critical to maintaining its competitive edge. However, the traditional nature of many HR departments often makes them slower to adapt.

“The biggest obstacle is simply adapting. HR has not always been the most tech-forward part of the company.” (Professional 1)

“The benefits are real, but if you do not dedicate the time to set it up properly, you will not see them.” (Professional 5) Another primary was how well AI systems can understand and align with an organization's unique values and culture.

“The question is, can AI grasp who we are as a company and what kind of people we want?” (Professional 4)

Bias in AI decision-making was another critical issue. Professionals at Waape mentioned cases like Amazon's failed hiring algorithm as cautionary tales, stressing the importance of training systems correctly to avoid perpetuating discrimination.

“Biases come from how the systems are trained. If you are not careful, they will carry those biases into your hiring decisions.” (Professional 3)

Still, some literature, like Upadhyay and Khandelwal (2018), suggests that AI can be trained to avoid certain forms, although it cannot fully replace human roles in culturally nuanced assessments. The same authors note that while AI can efficiently identify technical qualifications, more subjective aspects like interpersonal skills and cultural fit still require human input.

“Understanding cultural subtleties, language variations, these are areas where AI still struggles. There is context AI can miss, especially across diverse candidate pools.” (Professional 3)

4.4 Limitations and Recommendations for Future Research

One limitation of this study is the relatively small sample size and the early stage of AI adoption among organizations in Uganda and globally. Although AI in HR has seen considerable theoretical development, practical implementation, particularly in recruitment, remains limited. As such, collecting a broad range of empirical data was challenging.

At Waape, AI has only been adopted in select parts of the recruitment process, which makes it challenging to assess its full potential across all stages. Additionally, while the findings are rich in qualitative insight, a larger sample could have provided more generalizable results.

Given the emerging nature of AI in recruitment, there are multiple avenues for further study. One direction could be conducting country-specific research, such as a focused study on AI recruitment adoption in Uganda or East Africa, to understand regional differences in implementation readiness better.

Another valuable approach would be to include companies that have not yet adopted AI but are planning to, to capture anticipatory perspectives. Moreover, future studies could employ quantitative methods to examine how AI-driven hiring decisions influence company performance metrics such as turnover rates, employee retention, or productivity.

From the job applicant’s point of view, more research is needed to explore trust, experience, and perceptions of fairness when interacting with AI-based recruitment tools. Further investigations into whether AI reduces or perpetuates bias, particularly gender and cultural discrimination, would be highly relevant, as these concerns remain prevalent in traditional and digital hiring practices.

5. Conclusion

While AI in recruitment is still considered an emerging concept, this research reinforces that it is gaining traction in modern human resource practices. The central finding is that organizations like Waape must thoughtfully evaluate the necessity and relevance of adopting AI in their recruitment efforts. Understanding AI's implications for overall organizational effectiveness is key to making such decisions.

The research indicates that AI tools are most effective in three traditional recruitment stages: recruitment activities, applicant-related variables, and recruitment results. These stages involve data processing, filtering, and communication areas where AI excels due to its efficiency and automation capabilities. At Waape, AI has proven beneficial for pre-screening, managing candidate communication, rediscovering past applicants, and assisting in candidate ranking. However, setting recruitment objectives and developing strategies still require nuanced decision-making and remain predominantly human-led.

This highlights that while AI can enhance certain recruitment aspects, its implementation must be tailored to the company's specific challenges and operational needs. In Waape's case, a selective application of AI that yields the most significant returns may be more advantageous than a blanket implementation across all areas.

Moreover, the study reveals that AI primarily improves efficiency, accelerates processes, and automates repetitive tasks, allowing Waape's recruiters to concentrate on more strategic and interpersonal hiring elements. Despite these advantages, challenges such as technological readiness, the necessity for staff and system training, and concerns regarding the reliability of AI-generated outcomes remain significant. Interviewees stressed the importance of weighing the time and resources needed for AI integration against the anticipated benefits.

Overall, through a case-specific application of Breugh's model, this research provides a clearer understanding of AI's role in recruitment processes and offers insights into how its effectiveness can be assessed within an organizational context like Waape's, a topic that has not been thoroughly addressed in existing literature.

References

1. Abdullahi, M. S., Adeiza, A., Abdelfattah, F., Fatma, M., Fawehinmi, O., & Aigbogun, O. (2022). Talent management practices on employee performance: a mediating role of employee engagement in institutions of higher learning: quantitative analysis. *Industrial and Commercial Training*, 54(4), 589-612.
2. Abou Hamdan, L. F. (2019). The role of artificial intelligence in the recruitment and selection processes: a systematic review.
3. Acikgoz, Y. (2019). Employee recruitment and job search: Towards a multi-level integration. *Human resource management review*, 29(1), 1-13.
4. Albassam, W. A. (2023). The power of artificial intelligence in recruitment: An analytical review of current AI-based recruitment strategies. *International Journal of Professional Business Review: Int. J. Prof. Bus. Rev.*, 8(6), 4.
5. Alsaif, A., & Sabih Aksoy, M. (2023). AI-HRM: artificial intelligence in human resource management: a literature review. *Journal of Computing and Communication*, 2(2), 1-7.
6. Alshenqeeti, H. (2014). Interviewing as a data collection method: A critical review. *English linguistics research*, 3(1), 39-45.
7. Amadu, I. (2014). *The effect of recruitment and selection policies and practices on organisational performance: A case study of Naja David Veneer and Plywood Limited* (Doctoral dissertation).
8. Bagga, T., & Srivastava, S. (2014). SHRM: alignment of HR function with business strategy. *Strategic HR Review*, 13(4/5).
9. Bell, E., & Bryman, A. (2007). The ethics of management research: an exploratory content analysis. *British journal of management*, 18(1), 63-77.
10. Bendick Jr, M., & Nunes, A. P. (2012). Developing the research basis for controlling bias in hiring. *Journal of Social Issues*, 68(2), 238-262.
11. Bondarouk, T., & Brewster, C. (2016). Conceptualising the future of HRM and technology research. *The International Journal of Human Resource Management*, 27(21), 2652-2671.
12. Bondarouk, T., & Fisher, S. (2020). *Encyclopaedia of electronic HRM*. Walter de Gruyter.
13. Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative*

- research in psychology*, 3(2), 77-101.
14. Breugh, J. A. (2008). Employee recruitment: Current knowledge and important areas for future research. *Human resource management review*, 18(3), 103-118.
 15. Budhwar, P., Malik, A., De Silva, M. T., & Thevisuthan, P. (2022). Artificial intelligence—challenges and opportunities for international HRM: a review and research agenda. *The International Journal of Human Resource Management*, 33(6), 1065-1097.
 16. Casula, M., Rangarajan, N., & Shields, P. (2021). The potential of working hypotheses for deductive exploratory research. *Quality & Quantity*, 55(5), 1703-1725.
 17. Chen, Z. S., & Ma, Z. (2025). Leveraging Crowd Intelligence to Enhance Fairness and Accuracy in AI-powered Recruitment Decisions.
 18. Collings, D. G., Wood, G. T., & Szamosi, L. T. (2018). Human resource management: A critical approach. In *Human Resource Management* (pp. 1-23).
 19. Collis, J., & Hussey, R. (2014). Writing up the Research. In *Business Research* (pp. 297-330). Palgrave, London.
 20. Erixon, F. (2018). The economic benefits of globalization for business and consumers. *European Centre for International Political Economy*, 3-20.
 21. Faliagka, E., Tsakalidis, A., & Tzimas, G. (2012). An integrated e-recruitment system for automated personality mining and applicant ranking. *Internet research*, 22(5), 551-568.
 22. Galanaki, E., Lazazzara, A., & Parry, E. (2019). A cross-national analysis of e-HRM configurations: integrating the information technology and HRM perspectives. In *Organizing for Digital Innovation: At the Interface Between Social Media, Human Behaviour and Inclusion* (pp. 261-276). Springer International Publishing.
 23. George, G., & Thomas, M. R. (2019). Integration of artificial intelligence in human resource. *International Journal of Innovative Technology and Exploring Engineering*, 9(2), 5069-5073.
 24. Gill, P., Stewart, K., Treasure, E., & Chadwick, B. (2008). Methods of data collection in qualitative research: interviews and focus groups. *British dental journal*, 204(6), 291-295.
 25. Jepsen, D. M., & Grob, S. (2015). Sustainability in recruitment and selection: building a framework of practices. *Journal of Education for Sustainable Development*, 9(2), 160-178.
 26. Jw, C. (2009). Research design-qualitative, quantitative, and mixed methods

- approaches. *SAGE, Ca; ofprnia*.
27. Koivunen, S., Ala-Luopa, S., Olsson, T., & Haapakorpi, A. (2022). The march of Chatbots into recruitment: recruiters' experiences, expectations, and design opportunities. *Computer Supported Cooperative Work (CSCW)*, 31(3), 487-516.
 28. Maguire, M., & Delahunt, B. (2017). Doing a thematic analysis: A practical, step-by-step guide for learning and teaching scholars. *All Ireland journal of higher education*, 9(3).
 29. Moser, K. (2005). Recruitment sources and post-hire outcomes: The mediating role of unmet expectations. *International journal of selection and assessment*, 13(3), 188-197.
 30. Mueller, J. R., & Baum, B. (2011). The definitive guide to hiring right. *Journal of Applied Business and Economics*, 12(3), 140-153.
 31. Okoli, C. (2023). Inductive, abductive, and deductive theorising. *International Journal of Management Concepts and Philosophy*, 16(3), 302-316.
 32. Okolie, U. C., & Irabor, I. E. (2017). E-recruitment: practices, opportunities and challenges. *European journal of business and management*, 9(11), 116-122.
 33. Pervin, N., & Mokhtar, M. (2022). The interpretivist research paradigm: A subjective notion of a social context. *International Journal of Academic Research in Progressive Education and Development*, 11(2), 419-428.
 34. Rasmussen, T., & Ulrich, D. (2015). Learning from practice: how HR analytics avoids being a management fad. *Organizational dynamics*, 44(3), 236-242.
 35. Russell, S. J., & Norvig, P. (2016). *Artificial intelligence: a modern approach*.
 36. Schreurs, B., Derous, E., Van Hooft, E. A., Proost, K., & De Witte, K. (2009). Predicting applicants' job pursuit behaviour from their selection expectations: The mediating role of the theory of planned behaviour. *Journal of Organizational Behaviour: The International Journal of Industrial, Occupational and Organizational Psychology and Behaviour*, 30(6), 761-783.
 37. Shahbaz, U. (2020). *Towards automating the recruitment process* (Doctoral dissertation, Macquarie University).
 38. Stoilkovska, A., Ilieva, J., & Gjakovski, S. (2015). Equal employment opportunities in the recruitment and selection process of human resources. *UTMS Journal of Economics*, 6(2), 281-292.
 39. Stone, D. L., Deadrick, D. L., Lukaszewski, K. M., & Johnson, R. (2015). The influence of technology on the future of human resource management. *Human*

- resource management review*, 25(2), 216-231.
40. Taylor, M. S., & Collins, C. J. (2000). Organizational recruitment: Enhancing the intersection of research and practice.
 41. Thebe, T. P., & Van der Waldt, G. (2014). A recruitment and selection process model. *Administration Publica*, 22(3), 6-29.
 42. Timmermans, S., & Tavory, I. (2012). Theory construction in qualitative research: From grounded theory to abductive analysis. *Sociological theory*, 30(3), 167-186.
 43. Ombata, T. O., & Wamwayi, S. (2024). Strategic human resource management practices and organizational performance of Unga Farm Care East Africa Limited. *International Journal of Social Sciences Management and Entrepreneurship (IJSSME)*, 8(1).
 44. Turyahikayo, E. (2021). Philosophical Paradigms as the Bases for Knowledge Management Research and Practice. *Knowledge Management & E-Learning*, 13(2), 209-224.
 45. Upadhyay, A. K., & Khandelwal, K. (2018). Applying artificial intelligence: implications for recruitment. *Strategic HR Review*, 17(5), 255-258.
 46. Ulfa, D., Prihantono, J., & Annas, M. (2022, April). Impact of artificial intelligence on recruitment process. In *ICEBE 2021: Proceedings of the 4th International Conference of Economics, Business, and Entrepreneurship, ICEBE 2021, 7 October 2021, Lampung, Indonesia* (p. 222). European Alliance for Innovation.
 47. Yiga, I., & Wandiba, A. (2017). Recruitment and Selection Process and Local Government Performance in Kiboga District, Uganda. *NIU Journal of Social Sciences*, 2(2), 71-82.
 48. Wang, Z., & Surienty, L. (2024). Unveiling artificial intelligence (AI)-recruitment processes in HRM practices on job applicants' satisfaction. *Global Business & Management Research*, 16.
 49. Wright, J., & Atkinson, D. (2019). The impact of artificial intelligence within the recruitment industry: Defining a new way of recruiting. *Carmichael Fisher*, 1-39.
 50. Yilmaz, K. (2013). Comparison of quantitative and qualitative research traditions: Epistemological, theoretical, and methodological differences. *European journal of education*, 48(2), 311-325.
 51. Zang, S., & Ye, M. (2015). Human resource management in the era of Big Data.

Appendix: Interview Guide

Questions relating to the application of AI in HRM

1. What do you think are the current benefits or challenges of traditional recruiting?
2. What are the effects of an ineffective recruitment process within an organization?
3. How has AI-based recruitment shaped and changed the so-called 'traditional HRM and recruitment'?

Questions relating to the challenges and benefits of using AI in the recruitment process:

1. What are the benefits of using AI in the recruitment process? (Compared to "traditional recruiting")
2. The problems and benefits mentioned about traditional recruitment, can AI be used to delimit or enhance these factors?
3. What is the most important benefit? If you can name one?
4. What are some challenges of using AI in the recruitment process?
5. What is the biggest/most difficult challenge? Can you name one?
6. Can AI solve those challenges in the future?
7. How do you see the future of the application of AI within recruitment change? Will it be implemented more or less?

Resümee

TEHISINTELLEKTI INTEGRERIMINE VÄRBAMISSE: WAAPE CO. LTD. UGANDAS.

Asem Kinyiri

See magistritöö uurib tehisintellekti (TI) rakendamist värbamisprotsessis, keskendudes Ugandas tegutsevatele tehnoloogiapõhisele värbamisettevõttele Waape Co. Ltd. Traditsiooniliselt on värbamisprotsessid olnud aeganõudvad ja seotud ulatusliku paberdokumentatsiooniga. Värbamise digitaliseerimine muudab neid protsesse järk-järgult tõhusamaks, tuues mängu nii veebiplatvormid kui ka tehisintellektil põhinevad süsteemid.

Kuna digitaalne transformatsioon mõjutab üha enam kaasaegset personalijuhtimist, on selle uurimistöö eesmärk hinnata tehisintellekti potentsiaali värbamistavade tõhususe, täpsuse ja õiglasuse parandamisel ning tuvastada praktilised väljakutsed, mis kaasnevad TI rakendamisega reaalses töökeskkonnas.

Andmeid koguti kvalitatiivse juhtumiuuringu raames poolstruktureeritud intervjuudega kümnelt Waape töötajalt, sealhulgas ettevõtte asutajalt, personalitöötajatelt, tarkvaraarendajatelt, värbajatelt ja lihhtöötajatelt. Teemaatilise analüüsi abil uuriti, kuidas on TI tööriistad integreeritud Waape värbamistegevustesse ning milline mõju on neil kandidaadi hindamisele nii organisatsiooni kui ka töötajate vaatenurgast.

Tulemused näitavad, et Waape on edukalt kasutusele võtnud tehisintellekti tehnoloogiad värbamisprotsesside täiustamiseks. Suurimad edusammud on seotud CV-de sõelumise automatiseerimisega, kandidaatide ja töökohtade parema sobitamise ning töölevõtu protsessi kiirendamisega. See on oluliselt parandanud organisatsiooni tulemuslikkust, eriti suure hulga taotluste haldamisel.

Siiski toob uuring esile ka olulisi väljakutsed, nagu andmekaitseprobleemid, algoritmiliste otsuste piirangud ning võimalikud eelarvamused TI loodud väljundites. Vaatamata püüdlustele luua erapooletuid süsteeme võivad alateadlikud kallutused siiski värbamisotsuseid mõjutada, eriti lõplike otsuste tegemisel.

Nende riskide maandamiseks kasutab Waape hübriidset lähenemisviisi, ühendades TI tööriistad inimjärelevalvega. Ettevõtte on rakendanud struktureeritud intervjuuprotsesse, pakkunud töötajatele koostöö eelarvamusteadlikkuse alal ning taganud värbamisprotsesside läbipaistvuse, et edendada õiglust ja vastutustundlikkust. See kombineeritud lähenemine võimaldab kasutada TI eeliseid, säilitades samal ajal inimese intuitsiooni ja eetiliste kaalutluste keske rolli värbamisotsustes.

Kokkuvõttes pakub see magistritöö praktilisi teadmisi organisatsioonidele, kes kaaluvad tehisintellekti rakendamist värbamisprotsessis, eriti arenevatel turgudel. Töös rõhutatakse vajadust

tasakaalustada tehnoloogiline innovatsioon eetilise vastutuse, pideva hindamise ja kaasavate tavade, et kujundada tõhusad ja jätkusuutlikud TI-põhised värbamissüsteemid.

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Asem Kinyiri

21/05/2025