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APPLICATION OF ARTIFICIAL INTELLIGENCE (AI) IN HUMAN RESOURCES MANAGEMENT IN ACCESS BANK PLC, NASARAWA STATE UNIVERSITY, KEFFI BRANCH, NASARAWA STATE, NIGERIA

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Abstract

The study examined artificial intelligence (AI) in HRM, using The access bank plc, Nasarawa State University, Keffi as a case study. The study was guided by three research questions and objectives which are to assess the existing HRM processes and challenges faced by Access bank plc, Nasarawa State University, Keffi in their recruitment and employee management, to explore different AI techniques and tools that that has been applied by Access bank plc, Nasarawa State University, Keffi in the HRM context and to examine impacts and limitation of AI adoption in HRM. The study was carried out in Access bank plc, NASARAWA STATE UNIVERSITY, Keffi. The sample size is 92. Taro yamane formula sampling technique was adopted. The study revealed that in table 1 that there are

HRM processes and challenges faced by Access bank plc, Nasarawa State University in their recruitment and employee management, table 2 shows that the five items were all supported by the respondents that different AI techniques and tools has been applied by Access bank plc, Nasarawa State University in the HRM context, table 3 shows that the five items were all supported by the respondents that impacts and limitation of AI adoption affects HRM processes in Access bank plc, Nasarawa State University, Keffi and table 4 shows that the five items support and highlight that AI influence HRM Processes. The study recommended that the management of Access Bank Plc should invest in AI-driven recruitment tools to enhance the efficiency and effectiveness of their talent acquisition process.

INTRODUCTION

In today's interconnected world, the conventional methods of conducting business are being questioned. The competition is no longer limited to local firms, but rather organizations must consistently compete on a global scale due to the shrinking effect of new technologies (Erixon, 2018). Consequently, to remain current and maintain a competitive edge, it is essential for organizations to embrace these technological advancements.

Every organization aims to address a problem by offering products, services, or both. This objective defines the mission, vision, and values of an organization. To achieve this, human labour is necessary. Humans serve as a valuable source of knowledge and expertise that every organization can and should tap into. Therefore, the recruitment and retention of such employees play a significant role in today's context (De Kok and Uhlaner, 2001). However, Human Resource Management (HRM) plays a vital role in ensuring that organizations acquire and retain the right talent to drive their success.

Human resource management (HRM) encompasses the activities of hiring, training, compensating, creating policies for, and formulating strategies to retain employees. Over the past two decades, HRM has experienced significant transformations, leading to its heightened significance in today's organizations (University of Minnesota, 2023). Traditionally, HRM procedures like recruitment, employee training, and development have

been both time-consuming and labour-intensive. Specifically, the recruitment process involves sifting through numerous resumes, conducting interviews, and making subjective judgments based on limited information. These processes not only suffer from inefficiencies but also carry the risk of biases that can result in erroneous hiring decisions.

The emergence of technology has revolutionized HR processes. Organizations have embraced artificial intelligence (AI) to streamline recruitment procedures, enabling them to efficiently and impartially identify the most competent candidates within a specified timeframe and budget (Yu-Shen et al.,2020). Within the management discourse, there has been a significant progression from big data (BD) to machine learning (ML) and ultimately to artificial intelligence (AI) (Tambe et al., 2018).

Artificial intelligence entails the replication of human intelligence processes by machines, specifically computer systems. As defined by Kaplan and Haenlein (2019), AI is characterized by a system's capacity to accurately comprehend external input, acquire knowledge from it, and employ that knowledge to accomplish specific performance objectives through adaptive adjustments. AI encompasses a range of applications, including expert systems, natural language processing, speech recognition, and machine vision.

Artificial intelligence plays a crucial role in bridging the gap between education systems and labour markets. With the aid of digital technologies, talented individuals can easily discover suitable job opportunities within the labour market. According to a study by MGI, by the year 2025, online talent platforms have the potential to facilitate 60 million people in finding jobs that align more closely with their skills or preferences. Additionally, these platforms can significantly reduce the costs associated with human resource management, including recruitment, by up to 7% (McKinsey Global Institute, 2017).

Therefore, the aim of this study is to investigate the utilization of artificial intelligence (AI) in HRM, using the Access bank plc Nasarawa State University, Keffi as a case study.

Statement of the Problem

The conventional recruitment process in human resource management (HRM) is often laborious, manual, and susceptible to biases. The process typically involves human recruiters personally reviewing CVs, online profiles, and other sources to identify potential candidates. Recruiters handle all initial contact, provide feedback to rejected applicants, and conduct interviews (O'Donovan, 2019). However, due to human limitations, it is challenging for recruiters to effectively manage all these tasks within the available time, necessitating significant dedication from each individual recruiter.

The identified problem lies in the human limitations, such as biases, preconceptions, and time constraints, which can hinder the effectiveness of the recruitment process. This issue can result in organizations missing out on well-suited candidates for a job and incurring financial losses (Baron et al., 2018).

Considering the growing adoption of AI technology in HRM processes, it is crucial to conduct research in this area to gain a deeper understanding of the topic. The Access bank plc Nasarawa State University, Keffi will serve as a case study to explore the implications of AI technology in HRM processes.

The following research questions shall guide the investigation

i. What are the existing HRM processes and challenges faced by Access bank plc?
ii. What are different AI techniques and tools that that has been applied by Access bank plc in HRM context?
iii. What are the impacts and limitation of AI adoption in HRM processes in Access bank plc?

CONCEPTUAL FRAMEWORK

Concept of Human Resources Management

Human Resource Management (HRM) is the strategic approach to the effective management of people within an organization to help it achieve its goals. It encompasses a wide range of activities and responsibilities designed to optimize the performance and satisfaction of employees.

HRM includes recruiting and selecting the right talent, onboarding and training new employees, and continuously developing their skills and capabilities. It involves managing employee performance through appraisals and feedback, and ensuring fair and motivating compensation and benefits. HRM also focuses on maintaining positive employee relations and ensuring compliance with labor laws and regulations.

HRM uses data and analytics to improve decision-making and strategic planning. Overall, HRM aims to create a productive, engaged, and motivated workforce that contributes to the organization's success.

Human Resource Management (HRM) is a comprehensive and strategic approach to managing an organization's most valuable asset-its people. It involves a variety of practices aimed at recruiting, developing, and retaining a talented and motivated workforce. HRM plays a crucial role in shaping the organizational culture and ensuring that employees are aligned with the company's goals and objective.

Concept of Artificial intelligence (AI)

Artificial Intelligence (AI) is a branch of computer science focused on creating systems capable of performing tasks that typically require human intelligence. These tasks include reasoning, learning, problem-solving, perception, understanding natural language, and even exhibiting creativity. AI aims to develop algorithms and models that enable machines to mimic human cognitive functions.

AI encompasses several subfields, including: Machine Learning (ML): A core component of AI, where systems learn from data to improve their performance over time without being explicitly programmed for each task. This includes supervised learning, unsupervised learning, and reinforcement learning.

Natural Language Processing (NLP): This subfield focuses on enabling machines to understand, interpret, and generate human language. Applications include speech recognition, language translation, and Chabot's.

Computer Vision: This involves enabling machines to interpret and make decisions based on visual information from the world, similar to human sight. Applications include image recognition, facial recognition, and autonomous vehicles.

Robotics: This combines AI with mechanical engineering to create machines that can perform physical tasks, ranging from simple repetitive actions to complex autonomous behaviors in dynamic environments.

Expert Systems: These are AI systems designed to mimic the decision-making abilities of a human expert in specific domains, such as medical diagnosis or financial forecasting.

AI applications are vast and varied, impacting numerous industries and aspects of daily life. In healthcare, AI is used for diagnostics, personalized medicine, and managing patient care. In finance, it assists with fraud detection, algorithmic trading, and customer service automation. AI enhances user experiences through personalized recommendations on platforms like Netflix and Amazon, and drives innovations in autonomous vehicles, smart home devices, and more.

The development of AI also raises Important ethical and societal considerations, such as ensuring data privacy, addressing bias in AI systems, and contemplating the impact of automation on employment. As AI continues to evolve, it promises to bring significant advancements while also posing challenges that need to be thoughtfully managed.

Human Resources Management Process

Human Resource Management (HRM) encompasses a broad array of activities and processes aimed at effectively managing an organization's human capital. At its core, HRM involves the systematic approach to recruiting, hiring, deploying, and managing employees, ensuring that the organization has the right people with the right skills at the right time.

One of the foundational aspects of HRM is job analysis and design. This process involves a thorough understanding of the requirements and responsibilities of each job within the organization. It includes identifying the skills, knowledge, and abilities necessary for each role and designing jobs that are both fulfilling for employees and beneficial for the organization.

Human resource planning is another critical element of HRM. This involves forecasting the organization's future staffing needs based on its strategic goals and objectives. Effective HR planning ensures that the organization can meet its future workforce requirements, whether through internal development or external recruitment.

Recruitment and selection are key components of the HRM process. Recruitment involves attracting a pool of qualified candidates for job openings through various methods such as job postings, career fairs, and partnerships with educational institutions. Selection is the process of evaluating and choosing the best candidates from this pool. This step is crucial as it directly impacts the quality of the workforce and, consequently, the overall performance of the organization. Once new employees are hired, the onboarding and orientation process integrates them into the organization. This includes familiarizing them with the company's culture, policies, and procedures, and providing the initial training necessary to perform their jobs effectively. Effective onboarding can improve employee retention and performance.

Training and development are ongoing processes within HRM. Organizations invest in training programs to enhance employees' skills and knowledge, ensuring they can meet current job demands and prepare for future roles. Development focuses on long-term growth, helping employees advance their careers and take on new challenges within the organization.

Performance management is an integral part of HRM, involving the continuous process of setting goals, assessing progress, and providing feedback. This helps ensure that employees' performance aligns with the organization's objectives. Effective performance management includes regular appraisals, coaching, and the identification of areas for improvement and development.

Compensation and benefits are crucial in attracting, motivating, and retaining employees. HRM involves designing a compensation system that is fair, competitive, and aligned with the organization's financial capabilities. Benefits such as health insurance, retirement plans, and paid time off are also part of the total rewards package that helps maintain employee satisfaction and loyalty.

Employee relations focus on maintaining a positive work environment and managing the relationship between the employer and employees. This includes addressing employee concerns, resolving conflicts, and ensuring open communication channels. A positive employee relations strategy can lead to higher job satisfaction and reduced turnover. Compliance with labor laws and regulations is a vital aspect of HRM. Organizations must ensure that their HR practices adhere to all relevant legal requirements to avoid penalties and protect employees' rights. This includes understanding and implementing laws related to employment, health and safety, discrimination, and more.

HR metrics and analytics play a significant role in modern HRM. By collecting and analyzing data on various HR processes and outcomes, organizations can gain insights into

their workforce and make informed decisions. This data-driven approach helps improve HR practices, enhance efficiency, and support strategic planning.

Artificial Intelligence (AI) Techniques and Tools

Artificial intelligence (AI) encompasses a variety of techniques and tools used to build systems that can perform tasks typically requiring human intelligence.

Techniques are: Machine Learning (ML): Supervised Learning; Training models on labeled data (e.g., regression, classification). Unsupervised Learning; identifying patterns in unlabeled data (e.g., clustering, dimensionality reduction). Reinforcement Learning; training models through trial and error using rewards and penalties.

Deep Learning: Neural Networks; Algorithms inspired by the human brain, including Convolutional Neural Networks (CNNs) for image processing and Recurrent Neural Networks (RNNs) for sequential data. Transformers; Advanced neural network architectures, especially effective for natural language processing tasks.

Natural Language Processing (NLP): Techniques for understanding and generating human language, including tokenization, sentiment analysis, and machine translation.

Computer Vision: Techniques for interpreting and processing visual data, such as image recognition, object detection, and image generation.

Expert Systems: Rule-based systems that emulate the decision-making ability of a human expert.

Genetic Algorithms: Optimization algorithms based on the principles of natural selection and genetics.

Tools are: Programming Languages: Python; The most widely used language for AI, with libraries like Tensor Flow, Porch, and scikit-learn.R; Popular for statistical analysis and data visualization. Julia; Known for high-performance numerical computing.

Frameworks and Libraries: Tensor Flow; An open-source platform developed by Google for machine learning and deep learning. PyTorch; An open-source deep learning framework developed by Facebook's AI Research lab. Keras; A high-level neural networks API, running on top of Tensor Flow or Theano. Scikit-learn; A Python library for traditional machine learning algorithms. NLTK; A toolkit for working with human language data in Python. Open CV; An open-source computer vision and machine learning software library.

Development Environments: Jupyter Notebooks; An open-source web application for creating and sharing documents containing live code, equations, visualizations, and narrative text. Google Colab; A free cloud service based on Jupyter Notebooks, providing free GPU and TPU acceleration. Integrated Development Environments (IDEs); Such as PyCharm, VS Code, and JupyterLab.

Data Management and Processing: Pandas; A Python library for data manipulation and analysis. NumPy; A library for numerical computing in Python. Hadoop and Spark; Frameworks for processing large datasets.

Visualization Tools: Matplotlib; A Python plotting library for creating static, animated, and interactive visualizations. Seaborn; A Python visualization library based on Matplotlib, providing a high-level interface for drawing attractive statistical graphics. Tableau; A powerful, interactive data visualization tool.

These techniques and tools are integral to developing AI applications, ranging from simple automation tasks to complex systems capable of autonomous decision-making.

Artificial intelligence (AI) Adoption

AI adoption involves integrating artificial intelligence technologies into operations, products, or services. It starts with gaining awareness of AI's potential benefits and capabilities. Organizations then assess how AI can solve specific challenges or enhance

their processes. The next step is implementing AI tools and techniques, which may involve developing new solutions or integrating them into existing systems.

As AI becomes part of the organization, the focus shifts to scaling its use across various functions or regions to maximize benefits. Continuous optimization follows, where AI systems are refined based on performance data and feedback. Additionally, establishing governance and ethical guidelines is crucial to ensure responsible use, addressing issues like data privacy and bias.

Human Resources Management Processes and Recruitment and Employee Management

Human resources management (HRM) processes encompass a comprehensive set of activities designed to manage an organization's workforce effectively. Recruitment and employee management are two essential aspects of these processes. Effective recruitment ensures that the organization hires individuals who are qualified and culturally aligned, forming the foundation for successful employee management. Recruitment and onboarding processes seamlessly transition new hires into the employee management system, ensuring they are well-prepared and engaged from the start.

Employees selected through a rigorous recruitment process are more likely to perform well and benefit from targeted training and development programs, leading to higher productivity and job satisfaction. Effective recruitment reduces turnover by hiring candidates who fit well with the organization. Employee management practices, such as performance evaluations and career development opportunities, further enhance retention and engagement. Both recruitment and employee management are aligned with the organization's strategic goals. Recruitment ensures that the right talent is brought in to meet these goals, while employee management ensures that this talent is effectively utilized and developed. Recruitment and employee management are interdependent components of HRM processes.

Artificial Intelligence (AI) and Human Resources Management Context

Artificial intelligence (AI) is increasingly being integrated into Human Resources Management (HRM) to streamline processes, enhance decision-making, and improve overall efficiency. In recruitment and talent acquisition, AI tools can quickly scan and evaluate resumes, identifying the best candidates based on predefined criteria. AI can also match candidates to job openings by analyzing their skills, experience, and fit with the company's culture. AI-powered chatbots can engage with candidates, answer queries, and schedule interviews. For onboarding, AI can manage the process, ensuring new hires complete necessary paperwork and training modules. AI systems can also recommend training programs tailored to individual employee needs. In terms of employee engagement and retention, AI can analyze employee feedback from surveys, emails, and social media to gauge morale and identify potential issues. Predictive analytics can forecast which employees are at risk of leaving, allowing HR to take proactive measures. Performance management benefits from AI through continuous feedback systems that gather and analyze feedback from various sources. AI can also provide data-driven insights into employee performance, reducing biases in evaluations. AI can automate routine HR administration tasks such as payroll processing and benefits management. It can also help ensure HR practices comply with labor laws and regulations by monitoring changes and flagging potential issues. For learning and development, AI can recommend personalized learning paths based on an employee’s role, skills, and career aspirations. It can also identify skill gaps within the workforce and suggest training programs to address them. In promoting diversity and inclusion, AI can help identify and mitigate biases in recruitment, promotions, and other HR processes. AI tools can assist in creating more diverse hiring pools by reaching out to underrepresented groups.

By leveraging AI, HR departments can become more strategic, data-driven, and efficient, ultimately enhancing the overall employee experience and contributing to organizational success.

Artificial Intelligence Adoption and Human Resources Management

Adopting Artificial Intelligence (AI) in Human Resources Management (HRM) presents numerous opportunities, but it also comes with several limitations and challenges. Adopting Artificial Intelligence (AI) in Human Resources Management (HRM) presents numerous opportunities, but it also comes with several limitations and challenges. Data privacy and security pose significant risks when handling sensitive employee data with AI. Ensuring compliance with data protection regulations like GDPR is crucial and can be challenging. Interpretability and transparency are also concerns. Many AI models, particularly deep learning systems, operate as "black boxes," making it difficult to understand their decision-making processes. This lack of transparency can lead to mistrust among employees and stakeholders. Integration with existing systems can be complex and costly. Ensuring seamless interoperability between new AI solutions and legacy HR systems requires careful planning and resources.

Change management is a significant challenge, as employees may resist AI adoption due to fear of job displacement or lack of understanding of the technology. Effective change management strategies are necessary to ensure smooth transitions. There are also skill gaps to consider. HR professionals may lack the necessary skills to effectively utilize AI tools, necessitating training and development programs to build AI literacy among HR staff. Ethical considerations are crucial when automating HR processes, as ethical dilemmas such as balancing efficiency with empathy can arise. Establishing ethical guidelines for AI use in HR is essential. Legal and compliance issues must be addressed, as AI applications in HR must comply with various labor laws and regulations, which can vary by region. Legal challenges can arise if AI-driven decisions lead to disputes or claims of unfair treatment. Accuracy and reliability of AI systems are critical, as they require high-quality, accurate data to function correctly. Inaccurate or incomplete data can lead to poor decision-making and undermine the credibility of AI tools.

Theoretical Review

Human Capital Theory

This theory views employees as assets whose value can be enhanced through investment, such as training and development. AI can enhance human capital by identifying skill gaps, predicting future skills needed, and providing personalized training programs. Human Capital Theory treats employees as assets whose value can be increased through investment, such as education and training. Relevance to AI in HRM are;Skill Gap Analysis, AI can identify gaps in employees' skills and recommend targeted training programs. Personalized Learning, AI can deliver customized training based on individual learning styles and career goals. Talent Development, AI can forecast future skills needed by analyzing industry trends and help in planning workforce development.

Transactional vs. Transformational HRM

Transactional HRM focuses on routine, administrative tasks, while transformational HRM focuses on strategic initiatives that contribute to organizational success. AI can automate transactional tasks, freeing up HR professionals to focus on transformational activities. Transactional HRM deals with administrative tasks, while Transformational HRM focuses on strategic initiatives. Relevance to AI in HRM are; Automation of Administrative Tasks, AI can handle routine HR tasks, such as attendance tracking and benefits administration. Strategic HRM, by freeing up time, AI allows HR professionals to focus on strategic planning and employee development. Data-Driven Decisions, AI provides insights that can shape HR strategies and policies.

Cognitive Load Theory

This theory is concerned with the amount of information that working memory can hold at one time. AI can help manage cognitive load by filtering and prioritizing information, thus aiding decision-making processes in HRM. This theory is about managing the amount of

information that working memory can handle at one time. Relevance to AI in HRM are; Information Filtering, AI can prioritize and present relevant information to HR professionals, reducing cognitive overload. Decision Support, AI can analyze large datasets and present actionable insights to aid decision-making. Task Simplification, AI can streamline complex processes, making them easier to manage.

Empirical Reviews Kenechukwu, Ibeto, Austin, Boniface (2023) investigated that Screening resumes efficiently and fairly is perhaps the biggest challenge in human resource acquisition. The study sought to analyze current challenges of human resource management practices, determine the current state of artificial intelligence in the recruitment process and to show the pros and cons of the use of artificial intelligence in human resource management using the grounded theory approach. The paper is entirely based on secondary data which were sourced from books, research papers and articles from internationally recognized journals. The study finds that; in terms of the current state of Artificial Intelligence in human resource management, while general-purpose Artificial Intelligence is still a long shot in any area of human activity, the advancement towards specialized AI-systems in health-care sector, automobile industry, social media, advertising and marketing is significant.

CHIMA Chukwuka Christian (2022) The paper examined artificial intelligence in human resources management and the need to present this important asset in the financial statement which can be reflected as part of government financial performance. The study employed descriptive design. Thus, it is exploratory in nature based on extensive review of relevant literature on artificial intelligence, human resources management and human resources accounting. The findings revealed that artificial intelligence is gradually taking over certain areas of human resources management and most organizations have failed to recognize them in the financial statement as required. The paper therefore, recommended among others that human resource available in the public sector should be rightly assessed and should be further developed through motivation training and development, and

perception to the needs of the organization concerned. This will help to determine the financial performance of the government as it will reflect in the financial statement. Again, artificial intelligence is redirecting human capital in the organization, so the cost of acquiring artificial intelligence and human capital in the organization will reflect us in the financial statement of the organization. Further studies can be empirically done on this topic to establish the relationship between the variables.

Samuel Ogbeibu, Jude Emelifeonwu (2024) investigated that with growing climate change concerns, and constant advancements in smart technology, artificial intelligence, robotics, and algorithms (STARA), organizations in emerging economies are becoming more compelled to go green, develop and deploy their STARA capability to boost profits more effectively, and their environmental sustainability (ES). Likewise, with governments increasingly calling for ES, organization's human resource management (HRM) is further pressured to ensure their programmes aid realization of environmental objectives without compromising profit maximization. However, it remains unclear how complementary Green HRM (GHRM) programmes can be supported by organizational STARA capability (OSC) to bolster ES. Accordingly, we investigate how OSC and GHRM programmes predict ES through a time lagged survey design with data from 461 managers of 177 manufacturing organizations in Nigeria. Results indicate that OSC positively predicts all GHRM programmes and ES but dampens the positive relationship between green training, involvement and development (GTID), and ES. Apart from green performance and compensation (GPC), which is a negative predictor, other GHRM programmes positively predict ES. While green recruitment and selection (GRS) and GTID are complementary mediators, GPC plays a competitive mediating role. Policy implications are subsequently discussed.

Abbreviations: ES(Environmental Sustainability), GPC(Green performance and compensation)GRS(Green recruitment and selection), GTID(Green training, involvement

and development), OSC(Organizational STARA capability),STARA(Smart technology, artificial intelligence, robotics and algorithms).

Muhaiminul, Abdullah Al Mamun, Samina (2022) Artificial intelligence (AI) is now considered indispensable in undertaking operational activities, especially in the area of human resource analytics. However, in practice, the rate of the adoption of such modern algorithms in organizations is still in its early stages. Consequently, the primary objective of this study is to identify the main antecedents of the adoption of AI-based technologies in recruitment, using the lens of the unified theory of acceptance and use of technology (UTAUT) model, alongside perceived credibility and moderating variables, in the context of an emerging nation in South Asia, namely Bangladesh. Data were collected from 283 human resource professionals employed in different manufacturing and service firms in Bangladesh through the administration of a questionnaire, which was analysed by applying PLS-SEM. The outcomes of the study show that all the direct hypothesised relationships were found to be significant, apart from the extended variable of perceived credibility. However, no moderating effect of gender or firm size was found in any of the hypothesised propositions. Finally, policy implications and recommendations for future researchers are proposed.

Abayomi, Fauziyah, Adeleke, Olateju, Taiwo, Adesina(2022) saw that Due to the growing presence of artificial intelligence (AI) in developed countries, this study investigates the awareness and perception about artificial intelligence in the management of university libraries in Nigeria. The study is a survey design that is based on both qualitative and quantitative approaches. The population of the study comprised eighty academic librarians from eight purposively selected university libraries in the country. The finding of the study revealed that academic librarians are aware of the existence of AI usage in the university libraries and that the fear of job loss is the major constraint they face in the adoption of the technologies; even though they are aware that the innovative technologies will enable efficient user satisfaction. The study recommends the need for academic librarians to make

themselves relevant in this era of the fourth industrial revolution, by acquiring necessary skills that are in line with the technologies. It is also critical that library management educate academic librarians to understand that the adoption of AI in the library does not translate to the loss of jobs.

Pawan, Soumyadeb, Geoffrey Wood, Greg J Bamber,(2023), researched that ChatGPT and its variants that use generative artificial intelligence (AI) models have rapidly become a focal point in academic and media discussions about their potential benefits and drawbacks across various sectors of the economy, democracy, society, and environment. It remains unclear whether these technologies result in job displacement or creation, or if they merely shift human labour by generating new, potentially trivial or practically irrelevant, information and decisions. According to the CEO of ChatGPT, the potential impact of this new family of AI technology could be as big as "the printing press", with significant implications for employment, stakeholder relationships, business models, and academic research, and its full consequences are largely undiscovered and uncertain. The introduction of more advanced and potent generative AI tools in the AI market, following the launch of ChatGPT, has ramped up the "AI arms race", creating continuing uncertainty for workers, expanding their business applications, while heightening risks related to well-being, bias, misinformation, context insensitivity, privacy issues, ethical dilemmas, and security. Given these developments, this perspectives editorial offers a collection of perspectives and research pathways to extend HRM scholarship in the realm of generative A In doing so, the discussion synthesizes the literature on AI and generative AI, connecting it to various aspects of HRM processes, practices, relationships, and outcomes, thereby contributing to shaping the future of HRM research.

Lateef and Okikiola(2023) The activities and practices of human resource globally have become so sophisticated and continues to evolve; therefore, a need to complement its functions with mechanism and tools to aid efficiency is necessary. It was on this note that this study investigated the perceived influence of artificial intelligence on human resource

management practices among fast-moving consumer goods (FMCGS) in Lagos State. The study was descriptive and 185 respondents were selected for the study through the convenience sampling method, the method for collecting data was through a structured questionnaire. Finding revealed that artificial intelligence have positive relationship with recruitment/selection practices with ($r=0.941$, p-value<0.05); in the same manner, a strong and significant effect of artificial intelligence was found on training and development practices with ($R\ 2 = 0.900$, p-value <0.05) and finally, a strong and positive relationship exists between artificial intelligence and performance management practices with ($r=0.920$, p-value<0.05). The study concluded that there is an urgent need for HR practitioners to embrace automation through artificial intelligence, since it has substantial and significant effect and relationship on their job; and have established room for digitalisation. Therefore, management should ensure that their both HR practitioners and employees should prepare adequately to support digital transformation orchestrated by artificial intelligence throughout their work cycle or process.

Payal Kathuria and Swapnil Aggarwal(2023) Human resources are being challenged by artificial intelligence, which threatens to replace them in routine jobs and cognitive tasks, causing them to develop a greater desire to learn new skills. As a result, we will focus on two key concepts first artificial intelligence and the second is human resources, which serve as the foundation for this paper. AI technologies provide numerous possibilities for enhancing HR functions such as recruitment, payroll, self-service transactions, access policies, and procedures in organizations. Artificial Intelligence technologies are focused on the replication of human intelligence principles in action. The purpose of this was to research AI as a concept as well as AI's place in managing human resources. This paper revealed that AI in numerous tasks was expanding and was now able to handle duties like hiring, analysis of data as well as workload reduction at the workplace, which enhance organizational performance. The advanced technology had focused on HRM activities,

such as hiring, training, and job performance, as well as HRM tactics, such as job replacement, human-robot/AI collaboration, etc.

Fedorinov and O. A. Polishchuk(2024), saw the gap that Digitalization covers all spheres of our life, the pace of development of information technologies is accelerating – their importance in modern society is increasing. There is an active introduction of modern technologies into various business processes, including personnel management, which can change the human resource management system we are used to. The field of artificial intelligence development is not left behind, impressing the whole world with the pace of development in many areas, including work with personnel: recruitment, hiring and training. The purpose of the article is to study the introduction of digital technologies in personnel management. Objectives: to study the directions of artificial intelligence development in economics and management; to consider the history of the origin of the idea of such an application of artificial intelligence tools; to assess the interest in artificial intelligence in the field of human resource management; to consider the opinions of leading experts on the successes and prospects of the introduction of artificial intelligence in human resource management. Methodology. In the course of scientific research, empirical, theoretical, statistical methods and methods of graphical representation were used. Results. The theoretical aspects of the application of artificial intelligence technologies were studied; the popularity of this topic in science and business was shown. The experience of using artificial intelligence in human resource management of large global and Russian companies is summarized and the prospects for the development of this direction are shown. Examples of the positive effect of the introduction of artificial intelligence in the field of human resource management are shown. Conclusions. The article emphasizes the relevance and importance of the topic under consideration, taking into account the latest trends, perspectives and views of leading analysts. The possibilities that artificial intelligence technologies open up in the field of human resources are considered.

Raphael and Oladunni,(2013), As business activities are becoming increasing globally and as numerous firms expand their operations into overseas markets, there is need for human resource management (HRM) to ensure that they hire and keep good employees. From ages, firms/organizations have been having great problems in getting the right professionals into appropriate jobs and training. This research focuses at exploiting information technology in order to overcome these problems. The system, which is a network of inter–related processes, collects data from applicants through a web-based interface and matches with appropriate jobs. This prevents the frustration and some other problems inherent in the manual method of job recruitment, which is the traditional unstructured interview and knowledge based method for matching applicants to jobs. The proposed system is a neural network web-based human resource management system model running on Internet Information (IIS) server with capabilities for Active Server Page (ASP) and Microsoft Access; while Hypertext Markup Language (HTML) are used for authoring web pages. Finally, the system can run on the minimum Pentium machines with Windows XP operating system.

The study adopted a descriptive survey research design. Descriptive research is a process of data gathering, classifying and tabulating data about prevailing conditions, practices, beliefs, processes, trends and cause-effect relationships and then adequate and accurate interpretation about such data with the aid of statistical treatment. Descriptive survey research design was preferred as the study seeks to describe the relationship that exists among the subject variables and the sub-variables in the study.

Population of the Study

The population of the study comprises the staff of Access Bank Plc, Keffi, Nasarawa State. The population size of the study comprised of one hundred and twenty (120) staff of the bank.

Sample Size Determination and Sampling Techniques

The study adopted Taro Yamane formula in determining the sample size, and the formula is as follows:

N = N/1+N €^2

Where n = sample size to be determined

N = the entire population of interest

E = margin of error (0.05)

1 = constant (unity)

Substituting, we have;

N = 120/ (1+ 120(0.05) ^2)

N = 120/ (1+ 0.3)

N = 120/ (1.3)

N = 92.30769~93

Thus, the sample size for the study is 93 employees of the bank.

The study adopted simple random sampling technique because the researcher aimed to give equal chances to all members of the population to be selected among the sample.

Sources of Data

Data for the study were collected from both primary and secondary sources.

Primary Source: Here the researcher employed structured questionnaire. The plan, structure and strategy of investigation are conceived so as to obtain answers to research problems. It ensures that the required data are collected and they are accurate.

Secondary Source: Data for this study were also collected from textbooks, journals, articles, and the internet.

Research Instrument

A structured questionnaire titled "The Application of Artificial Intelligence in Human Resource Management" was designed by the researcher and used to collect data from respondents. The questionnaire was divided into three sections, namely; section A, section B and section C. The section A part of the questionnaire comprises personal data of the respondent such as age, gender, marital status and year of employment. While section B comprises, questions related to the research question of this study and section C the Dependent Variable of the study. The relevant data were collected through the use of five-point Likert scale questionnaire which include; strongly agree (4.0 – 5.00), agree (3.0 – 3.9), disagree (2.0 -2.9), strongly disagree (1.0 – 1.9), Neutral (0.01 – 0.9).

Validity of the Instruments

The study adopted content validity. The content of the questionnaire was presented to my supervisor for restructuring and correction; it was corrected and approved. The validity of the instrument was done through a proper evaluation by some experts in the evaluation and measurement department of Nnamdi Azikiwe University, Awka, Anambra state. This was done to ensure the questionnaire items appropriately address the objective of the study.

Reliability of the Instrument

The reliability of the instrument was ascertained through the method of test re-test. The process involved giving some copies of the questionnaire to a group of 10 staff of Access Bank Plc, Awka, to answer. After an interval of two weeks, the same questionnaire was administered to the group of 10 staff, and after that, the first and second responses were collected and analyzed through the use of Cronbach alpha method. Upon testing the

reliability of responses to the items in the test instrument using correlation analysis, a figure of 0.870 was obtained, which shows that the instrument is reliable.

Method of Data Analysis

Bio data collected were presented with the aid of frequency tabulation and percentages. The data relating to the response of respondents were analyzed using descriptive statistics (mean) and Hypotheses were tested using simple linear regression technique on Statistical packages for Social Science (version 27) at 5% level of Significance.

Decision Rule:

Accept the Alternate hypothesis (Ha) if P-value is less than 0.05 (P-value < 0.05), otherwise, reject the alternate hypothesis.

Summary of Findings

1. Shows that there are HRM processes and challenges faced by Access bank plc, Nasarawa State University, Keffi in their recruitment and employee management.
2. Shows that the five items were all supported by the respondents that different AI techniques and tools has been applied by Access bank plc, Nasarawa State University, Keffi in the HRM context
3. Shows that the five items were all supported by the respondents that impacts and limitation of AI adoption affects HRM processes in Access bank plc, Nasarawa State University, Keffi.
4. Shows that the five items support and highlight that AI influence HRM Processes.

Hypothesis Testing

Research Hypotheses One: The application of AI has no significant impact on HRM processes in Access bank plc, Nasarawa State University, Keffi.

Table: Simple linear regressions of application of AI and HRM processes in Access bank plc, Nasarawa State University, Keffi **Model**				**t**	**F**	**R2**	**Adjusted R2**	**Sig.**
	B	Std. Error	B					
(Constant)	2.614	.199		13.295				.000
Application of AI	.184	.056	.374	3.186	10.039	.036	.029	.005

Note. R2 = .036, Adjusted R2 = .029, F(10.039), p > .005

The results of the information introduced in Table 4 revealed that application of AI significantly affect HRM processes in Access bank plc, Nasarawa State University, Keffi (F = 10.039, t = 3.186, β = .374, p > .005). The Table also revealed that the adjusted R-square (.029) depicts that 02.9% of variances in the application of AI is determined by HRM processes in Access bank plc, Nasarawa State University, Keffi. Therefore, the null hypothesis is rejected, which further implies that application of AI affect HRM processes in Access bank plc, Nasarawa State University, Keffi.

Summary

The application of artificial intelligence (AI) in human resource management (HRM) has significantly transformed the way organizations like Access Bank Plc, NASARAWA STATE UNIVERSITY, KEFFI, manage their workforce. AI-driven tools streamline various HR processes, such as recruitment, employee performance evaluation, and training. In recruitment, AI enables the bank to automate candidate screening by using algorithms that analyze resumes and match them with job requirements, ensuring that only qualified candidates proceed to the interview stage. This reduces the time spent on manual screening and eliminates human bias.

At Access Bank Plc, AI is also used to monitor employee performance and engagement by analyzing data such as attendance, productivity, and feedback. The system can identify patterns that indicate dissatisfaction or the likelihood of an employee leaving, allowing HR managers to address issues proactively. Additionally, AI tools help in personalizing training and development programs for employees by assessing their skills and performance, recommending tailored learning paths to enhance their competencies. The integration of AI in HRM extends to improving employee experience through virtual assistants and chatbots, which provide real-time support for HR-related inquiries such as leave requests, payroll issues, and policy clarifications. This reduces the workload of HR personnel and enhances employee satisfaction by providing instant responses to their concerns.

Recommendations

1. The management of Access Bank Plc should invest in AI-driven recruitment tools to enhance the efficiency and effectiveness of their talent acquisition process.
2. HR professionals at NASARAWA STATE UNIVERSITY, KEFFI should integrate AI-based learning management systems to personalize employee training and development programs.
3. Access Bank's HR department should adopt AI analytics to monitor employee performance and engagement, enabling data-driven decision-making for talent management.
4. Access Bank Plc should implement AI tools for predictive analytics to forecast workforce trends and identify potential skills gaps within their organization.

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