ARTIFICIAL INTELLIGENCE AND HUMAN RESOURCE PROCUREMENT IN COMMERCIAL BANKS IN RIVERS STATE

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ABSTRACT

This study examined the relationship between artificial intelligence and human resource procurement in commercial banks in Rivers State. The Researcher adopted a cross-sectional survey design. The target population of the study consisted of 21 management staff of twenty one (21) commercial banks in Rivers State, while the entire population was adopted as the sample size for the study using the total enumeration (census) method. Primary data were collected using questionnaire. The data were analyzed using tables, simple percentages, Mean score rating, standard deviation, while the Hypotheses were tested using Spearman's Rank Correlation Coefficient (R^o). The findings revealed amongst others that there is a strong and positive relationship between Artificial Intelligence and measures of Human Resource Procurement (recruitment, selection and placement) among commercial banks in Rivers State. It was concluded that there is a relationship between artificial intelligence and measures of human resource procurement in commercial banks in Rivers State. Based on the findings, it was recommended amongst others that; management of commercial banks in Rivers State should reduce recruitment costs by adopting Artificial Intelligence (AI) variable of data mining. This will eventually enhance human resource procurement and improve the organization performance at large. Management of commercial banks in Rivers State should introduce and adopt machine learning type of Artificial Intelligence in their organization's human resource practices. This will help in enhancing the recruitment, selection and placement of the right employee in the organization.

Keywords: Artificial intelligence, Human resource procurement, recruitment, selection, placement

INTRODUCTION

Human Resource Procurement has remained one of the human resource management functions of getting the human resources needed by an organization, beginning with confirmation of vacancies and ending with personnel placement. It includes recruitment, selection, employment contract, induction and placement (Zeb-Obipi & Irabor-Ighedosa, 2020). This is a critical aspect of organizational management that involves the acquisition of skilled and qualified individuals to meet the staffing needs of a company. It plays a pivotal role in determining the success and sustainability of an organization by ensuring that the right people are

hired for the right positions. However, the process of human resource procurement is not without its challenges and limitations.

One of the key challenges in human resource procurement is the identification and assessment of suitable candidates. In today's competitive job market, companies are often faced with a large pool of applicants, making it difficult to select individuals who possess the desired skills and qualifications. This challenge is highlighted by Carr and Liden (2017) who argue that "finding and attracting top talent has become a significant challenge for organizations in the modern business landscape. Another critical issue in human resource procurement is the potential for bias and discrimination in the selection process. Despite efforts to ensure fairness and equal opportunity, unconscious biases can influence decision-making, leading to the exclusion of qualified candidates from underrepresented groups (Dobbin & Kalev, 2016). Such biases can undermine the organization's diversity and inclusion initiatives, hindering its ability to harness the benefits of a diverse workforce.

To mitigate these challenges, organizations need to adopt effective strategies and practices in their human resource procurement processes. These may include leveraging technology to streamline and automate recruitment processes, implementing standardized and objective evaluation criteria, and providing training to recruiters on diversity and inclusion principles. Additionally, organizations can develop partnerships with educational institutions and industry associations to proactively identify potential candidates (Sparrow et al., 2016).

Artificial Intelligence (AI) has emerged as a disruptive force in various industries, revolutionizing the way organizations operate and make decisions. Human resource procurement, a critical function within organizations, has also witnessed the integration of AI technologies. It has become imperative that the right individual is attracted and retained in other to bridge the workforce gap of now and the future (Hendrickson, 2003). The aim of this paper is to review the relationship between Artificial Intelligence and human resource procurement. For the purpose of this study, data mining, machine learning and cloud computing were

adopted as dimensions of Artificial Intelligence. The measures of human resource procurement used in this study were planning, recruitment and selection. Therefore, to the best of my knowledge, none of the literatures reviewed have similar dimensions and measure hence, the essence of the paper is to fill this gap.

However, despite the importance of effective human resource procurement in an organization, it is evidence that most organizations still face the problems of lack of fairness in the recruitment process and human biases which ultimately affect the design and implementation of the hiring system. Bias in recruitment occurs when an individual or group receives a favourable or disadvantageous treatment based on their characteristics such as age, colour, education background, ethnicity, religion etc. Bias is distinguished from discrimination by being an unconscious or unintentional human act, but it produces the same effect and results on human capital composition. Many studies (Davison & Burke, 2000; Ding & Stillman, 2005; Correll et al.,2007; Gordon & Arvey, 2004; Bertrand & Mullainathan, 2004) have been conducted on human biases that may affect hiring decisions; Davison and Burke (2000) reviewed 49 studies on gender bias and concluded that during the hiring process recruiters tended to bias against female candidates. Correll, et al., (2007) in their study about bias against ethnic groups held that white names candidates received 50 percent more call backs for interviews than for African-American names. While human bias poses legal threats to organizations, it also hinders organizations' efforts to develop by limiting the quality of its human resources. To avoid this dilemma, companies' usage of screening software has increased significantly during the last decade where smart software provides organizations with an opportunity to avoid human bias throughout the candidates' scanning process. This study therefore investigated the relationship between artificial intelligence and human resource procurement in commercial banks in Rivers State. The specific objectives of the study were:

1. To examine the relationship between artificial intelligence and recruitment among commercial banks in Rivers state
2. To examine the relationship between artificial intelligence and selection among commercial banks in Rivers state

3. To examine the relationship between artificial intelligence and placement among commercial banks in Rivers state

Conceptual Framework

The conceptual framework for this study (figure 1) illustrates the conceptual relationship between Artificial Intelligence and Human Resource Procurement among commercial banks in Rivers State. This study also examines the possible relationship between the variables.

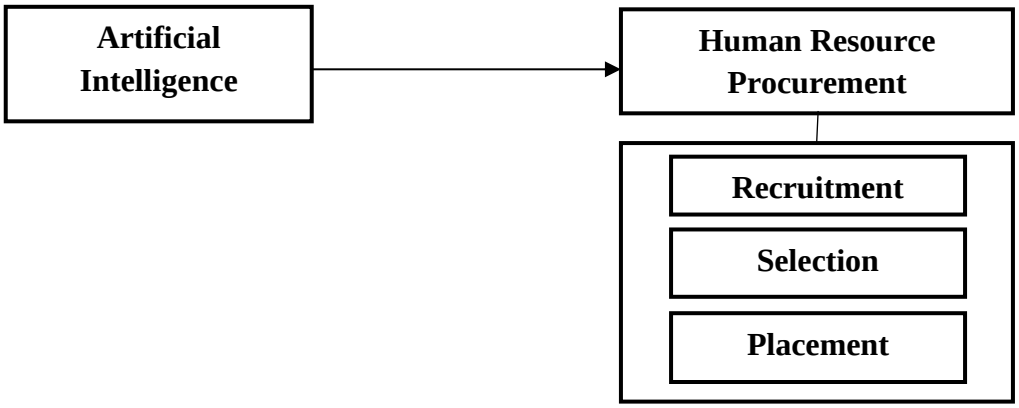

Fig. 1: Conceptual Framework of Artificial Intelligence and Human Resource Procurement.

Source: Dimension of Artificial Intelligence (Zeb-Obipi & Irabor-Ighedosa, 2020) and measures of Human Resource Procurement (Kalio & Zeb-Obipi, 2018)

Drawing from the conceptual framework, the following research questions were stated in line with the objectives of this study:

1. What is the relationship between artificial intelligence and recruitment in commercial banks in Rivers state?
2. What is the relationship between artificial intelligence and placement in commercial banks in Rivers state?
3. What is the relationship between artificial intelligence and selection in commercial banks in Rivers state?

LITERATURE REVIEW

Theoretical Review

Intelligence Support System Theory

Using AI, researchers have attempted to improve the effectiveness of decision-making. Integrated AI support systems or IDSSs have been created and used in various fields, such as healthcare and commerce. These systems use AI tools to infer, learn, memorize, plan, and analyse the data. Simon presented four stages in a decision-making process (Simon, 1960). Intelligence is the first stage of the study and requires the decision-makers to develop an understanding of the problem and collect information related to the decision-making. Similarly, the design stage involves characterizing the data with important variables based on decision issues, determining the criteria for the decisions, and developing decision models that can be used to evaluate alternative decisions. In the third stage, the decision-makers review the alternatives and choose the consolidated decisions that satisfy the alternatives. The final stage, sometimes referred to as evaluation, is when the decision-makers assess the consequences of a decision.

IDSSs utilize AI techniques to provide better support to decision-makers. AI tools, such as fuzzy logic, case-based reasoning, evolutionary computing, artificial neural networks, and intelligent agents, when combined with a DSS provide powerful methods for solving difficult problems that are frequently real-time and involve large amounts of distributed data (Phillips-Wren, 2013). IDSSs utilize some of the below-mentioned tools: Fuzzy logic for intelligent decision support; Expert systems for intelligent decision support; Evolutionary computing for intelligent decision support; Intelligent agents for intelligent decision support.

Conceptual Review

Concept of Artificial intelligence

The name behind the idea of AI is John McCarthy, who began research on the subject in 1955. McCarthy assumed that each aspect of learning and other domains of intelligence can be described so precisely that

they can be simulated by a machine. Artificial Intelligence describes the work processes of machines that would require intelligence if performed by humans. The term 'Artificial Intelligence' thus means 'investigating intelligent problem-solving behaviour and creating intelligent computer systems'.

Definitions relations to strong and weak artificial intelligence are the definitions that differentiate between AI mind and AI partner where the AI partner is equivalent with weak Artificial Intelligence and the AI mind is comparable with strong Artificial Intelligence (Etzioni & Etzioni, 2017). The terms are equal in their scope, but AI mind and AI partner might be more intuitive to a noncomputer scientist. None of the definitions do however provide a framework of how to delimit and differentiate the technology, thus having no practical use Etzioni & Etzioni (2017) while discussing how to incorporate ethics into AI states that "there are two different kinds of AI. The first kind of AI involves software that seeks to reason and form cognitive decisions the way people do to be able to replace humans. One could call this kind of AI minds.

The other kind of AI merely seeks to provide smart assistance to human actors— call it AI partners". Tarran & Ghahramani (2015) in looking at how machines learned to think statistically, adds that AI could be "weak or strong". He further posits that "weak Artificial Intelligence" are systems and applications that specialize in a particular area or niche. Conversely, "strong Artificial Intelligence" a computer that can perform any intellectual task that a human can". "Artificial intelligence is a computer programme designed to acquire information in a way similar to the human brain" (Staub et al 2015). Ramesh et al (2004) adds that "Artificial intelligence (AI) is defined as 'a field of science and engineering concerned with the computational understanding of what is commonly called intelligent behaviour, and with the creation of artefacts that exhibit such behaviour'" In his report, Fredriksson (2018) defined artificial intelligence as "the ability to learn from training datasets and from this by itself, continue to learn and draw its own conclusions" (p.18). This definition does not imply how the technology is used, if it is cognitive or non-cognitive, provides no division between different technologies and is consistent with the operations of existing technology. The definition is also avoiding the discussion of how far the technology has come.

Human Resource Procurement

This is an attribute of the human resource management function that deals with applicant sourcing for retention within the confines of an organization desiring the right skills, knowledge, and attitude through these measures namely: human resource planning, recruitment, selection, employment contract and induction and placement.

Human resource procurement is a crucial process that involves acquiring, selecting, and engaging qualified individuals to fulfil organizational needs and objectives. This process typically encompasses various activities, such as job analysis, recruitment, selection, and onboarding. The effective implementation of human resource procurement strategies is essential for organizations to attract and retain talented employees who can contribute to their success. Job analysis serves as the foundation of human resource procurement, providing insights into the tasks, responsibilities, and qualifications required for a particular position. According to Mathis and Jackson (2021), job analysis involves systematically gathering information about the job's content, skills, and characteristics. This information is then used to create job descriptions and specifications, which serve as a basis for recruitment and selection. In this study, Human resource procurement is measured in terms of recruitment, selection and placement which are discussed below:

Recruitment

Recruitment is the successor of human resource planning, creating the atmosphere for advertising available position knowing the number of applicants that are needed to fill vacancies. The process involves searching candidates for employment and stimulating them to apply for jobs in the organization with the basic purpose of having a talent pool of candidates, Edwin Flippo, (1971). In the recruitment process, the available vacancies are given wide publicity and suitable candidates are encouraged to submit applications so as to have eligible candidates.AI has greatly influenced recruitment processes by enhancing efficiency, objectivity, and reach. Automated applicant screening systems leverage AI algorithms to analyse resumes, identify relevant qualifications, and shortlist candidates, reducing manual effort and biases. For instance,

platforms like HireVue employ AI-powered video interviews to assess candidates' skills and personality traits objectively (Sharma et al., 2018). While these advancements expedite the hiring process, concerns arise regarding algorithmic biases that can perpetuate discrimination or favour certain demographic groups (Dastin, 2018).

Selection

The selection process in any organization begins after recruitment for employment and then it ends with the hiring decision Tamunomiebi & Zeb-Obipi (2013). Selection as the next after recruitment allows the organization chooses from the pool of talent, the most suitable candidates for the position advertised; it is a process of selecting the best and rejecting the rest. It is a view from a positive angle when the best is engage and seen as a negative function in the elimination of unsuitable candidates. It is important to engage the right persons in any establishment for proper alignment and attainment of goals and if this is not properly done, can lead to dissatisfaction, conflicts, unprofitability etc; for appropriate selection, a scientific procedure is employed to get the right candidates.

AI-based tools assist in candidate evaluation and selection through techniques like natural language processing and machine learning. For instance, assessment platforms like Plyometrics employ AI algorithms to analyse candidates' cognitive abilities, personalities, and behavioural traits (Sierra-Castañer et al., 2020). These tools offer standardized assessments and generate data-driven insights to aid decision-making. However, the effectiveness of AI in predicting job performance remains a subject of debate, as contextual factors and human judgment also play significant roles (Kuncel et al., 2013).

Placement

Human resource placement is the last requirement in employee procurement in an organization and it cannot be overemphasized, this measure enables the organization gives new employees an orientation of the work that will be done and the office that would be occupied. Placement, in the context of human resource procurement, refers to the process of selecting and appointing qualified individuals for specific

job roles within an organization. It is a crucial step in the recruitment process, where the right candidate is matched with the right position, ensuring that the organization benefits from their skills and expertise (Milkovich, Newman, Gerhart, 2017)

Scholars has emphasized the importance of effective placement as a means of maximizing employee potential and organizational performance. They stress that placing individuals in roles that align with their skills, qualifications, and interests can result in higher job satisfaction and better job performance. Successful placement can lead to reduced turnover rates and increased retention, as employees are more likely to stay in roles that fit well with their abilities and career aspirations. Placement as a measure of human resource procurement is essential because it involves analyzing the job requirements, understanding the candidates' qualifications, conducting interviews, and making informed decisions to ensure the right person is placed in the right job. This process helps to improve the overall efficiency and productivity of the organization (Milkovich et al, 2017).

Empirial Review

Relationship between Artificial Intelligence and Human Resource Procurement

Artificial Intelligence is a science that aims to replicate aspects of human intelligence such as learning, reasoning, perceiving, critical thinking, etc., using computer programs that are guided by logic (Villani, 2018). The ability of AI to crunch massive volumes of big data and convert it into meaningful information for decision making helps in altering and enhancing user (employee) and candidate experience in organizations for the better (Kapoor, 2020) (Meister, 2019). According to Tom Stachura, IBM, “AI is an accelerator – it allows us the ability to ingest a variety of data and provide context to a decision maker or employee or business leader. It allows us to deliver the right intelligence in the moment and achieve personalization at scale.” Unlike other technologies that were designed to increase efficiency while reducing costs, AIs are also designed to add value while completing any task (Guenole & Feinzig, 2018). This ability of AI to integrate easily into the HR function and deliver value is important for HRs because

of the transformation in the role of an HR from being a mere support function in an organization to a strategy oriented function that helps in driving the whole organization (Jain, 2014). AI strengthens the transition by amplifying the speed and efficiency of the HR function by taking over the mundane tasks while the personnel move towards fostering unique aspects such as empathy, critical thinking and creativity (Stevenson, 2019). Although AI seems to be able to take over a lot work being done in the HR function it is still a far way from replacing the HR personnel completely because of the persistent need for human intervention while dealing with employees (Davenport, 2019).

Artificial Intelligence (AI) has significantly impacted various industries, including human resource (HR) procurement, revolutionizing traditional recruitment processes. This critical analysis explores the complex relationship between AI and HR procurement, examining both the potential benefits and drawbacks. AI technologies offer numerous advantages in HR procurement, primarily by enhancing efficiency and streamlining processes. AI-powered recruitment tools can automate various tasks such as resume screening, candidate shortlisting, and interview scheduling, saving significant time and effort for HR professionals (Strohmeier, 2019). By leveraging machine learning algorithms, AI systems can quickly analyse large volumes of data, identifying patterns and matching candidates to job requirements more accurately (Marler & Parry, 2016). Consequently, AI enables HR teams to focus on higher-value activities, such as candidate assessment and strategic decision-making, leading to enhanced efficiency in the recruitment process.

While AI holds promise in HR procurement, it also raises concerns regarding bias and discrimination. AI algorithms are trained on historical data, which may contain hidden biases reflecting past human decisions (Burrell, 2016). Consequently, AI-based recruitment systems might inadvertently perpetuate and amplify existing biases, leading to discriminatory practices (Dastin, 2018). For instance, if historical data indicates a preference for candidates from specific backgrounds, the AI system might perpetuate this bias by favouring similar candidates in future selections. This potential for bias necessitates careful scrutiny and continual monitoring of AI systems to ensure fair and equitable HR procurement practices (Dastin, 2018).

The adoption of AI in HR procurement raises ethical considerations, particularly in the context of candidate privacy and data protection. AI systems often rely on extensive data collection, including personal information and social media profiles, to make informed recruitment decisions (Zhang, 2020). Organizations must establish robust data protection policies and adhere to legal and ethical guidelines to safeguard candidate privacy and prevent potential misuse of personal data (Zhang, 2020). Moreover, organizations must ensure transparency and accountability in AI algorithms, making them explainable and auditable to mitigate potential biases and discrimination (Schermerhorn, 2019). Ethical guidelines and regulatory frameworks should be developed to guide the responsible use of AI in HR procurement.

Bedoor, et al (2023), studied artificial intelligence in procurement: an overview and case study of Qatar Foundation. Although artificial intelligence (AI) has been reluctant to gain attraction in the procurement segment of a company, many organizations have started to see its potential in the supply chain activities since it enables numerous sectors in the evolution of their business models. AI refers to intelligent algorithms or apparatuses that are capable of autonomously and systematically performing activities or cognitions without human intervention or mental decisions. In procurement and supply chain applications, AI can enhance design and operational frameworks, data visibility and analytics, opportunity assessment, accurate report generation and contract management, etc. This paper presents opportunities and applications of AI in procurement with particular emphasis on the procurement process carried out by Qatar Foundation (QF). QF is a non-profit organization which has a unique system as it involves over 50 entities with different activities related to education, research, and community development. This one-of-a-kind ecosystem comprises a unique and complex supply chain model. As a result, procuring different materials and services to cope with all entities' requirement is a challenge due to the tremendous amount of data and purchases. The use of AI methodologies is anticipated to provide multiple benefits towards achieving improvements over diverse areas.

Migwei and Chuang (2021), studied Data mining method of Enterprise Human Resource Management Based on Simulated Annealing Algorithm The human resources department of an enterprise relies on the "mining" of big data when carrying out human resource management and proposes a data mining method for enterprise human resource management based on the simulated annealing algorithm. Applying the simulated annealing algorithm, using the Metropolis algorithm to generate the sequence of solutions to the combinatorial optimization problem, finding the overall optimal solution of the combinatorial optimization problem, using big data directional mining and analysis to help companies establish and find a "radar" system suitable for talents, the maximum tree method is adopted; that is, a special graph is constructed to realize the effective application of data mining technology in enterprise human resource management. The optimization of nurse scheduling in a hospital was used for case analysis. The results show that the target value of the nurse scheduling model is 43.43% lower than the actual manual scheduling target value, the salary cost is reduced by 10.8%, and the nurse's satisfaction with the shift is increased by 35.24%. After several iterations based on the simulated annealing algorithm, the optimal value of the solution of the simulated annealing algorithm remains unchanged at the 60th generation. Then, the search process is stopped when the 100th generation is reached, and the solution at this time is the optimal optimization value found by the algorithm.

Swati et al (2021), studied machine learning applications in human resource management This paper reviews 105 Scopus-indexed articles to identify the degree, scope and purposes of machine learning (ML) adoption in the core functions of human resource management (HRM). Design/methodology/approach A semi-systematic approach has been used in this review. It allows for a more detailed analysis of the literature which emerges from multiple disciplines and uses different methods and theoretical frameworks. Since ML research comes from multiple disciplines and consists of several methods, a semi-systematic approach to literature review was considered appropriate. From the findings, the review suggests that HRM has embraced ML, albeit it is at a nascent stage and is receiving attention largely from technology-oriented researchers. ML applications are strongest in the areas of recruitment and performance management and

the use of decision trees and text-mining algorithms for classification dominate all functions of HRM. For complex processes, ML applications are still at an early stage; requiring HR experts and ML specialists to work together. Originality/value given the current focus of organizations on digitalization, this review contributes significantly to the understanding of the current state of ML integration in HRM. Along with increasing efficiency and effectiveness of HRM functions, ML applications improve employees' experience and facilitate performance in the organizations.

Zeb-Obipi, & Kalio, (2018) studied Employee information systems and human resource procurement in the oil and gas sector in Nigeria. This study ascertained the relationship between employee information systems (EIS) and human resource procurement in the oil and gas sector in Rivers State, Nigeria. The systems theory was considered as a theoretical framework for this paper with prospects viewing the interaction between the organization and its external environment. The total population size of 217 was examined for this study and a sample size of 141was obtained via the Taro Yemen's formula. Questionnaires designed and distributed to the personnel/human resources staff of 4 leading oil and gas organizations in Port Harcourt metropolis, 127 out of the 141 was returned and 121 (95.3%) was considered useful for the study. The quasi-experimental method was used in this survey to determine the influence of employee-information systems and human resource procurement. This correlational analysis suggests a greater and stronger effect as is evident in the interactions of the dimensions and measures of both the predictive and criterion variables. Spearman's correlation coefficient (r) =0.975 and the significant value =0.000<0.05 which shows a strong relationship existing between employee information systems and human resource procurement. Globalization and technological advancement in the last decade, has birthed a new dawn for organizations: the use of information systems in various functions and capacities, of which human resources management is one of the arms of the organization that uses information systems to support activities such as identifying employees and managing their data. Conclusively, the findings show a strong, direct and positive interaction between the independent and dependent variable.

Consequently, the following hypothetical statements were put forward:

H_{O1}: There is no significant relationship between artificial intelligence and recruitment in commercial banks in Rivers state.

H_{O2}: There is no significant relationship between artificial intelligence and selection in commercial banks in Rivers state.

H_{O3}: There is no significant relationship between artificial intelligence and placement in commercial banks in Rivers state.

METHODOLOGY

The study adopted a cross-sectional survey design so as to ensure accurate and well-detailed information that led to the discovery of major characteristics of variables associated with the case under study. The population of this study was drawn from the managerial strength (Human resource managers) of twenty-one (21) commercial banks in Rivers State under review: As a result, the study population element is 21 managerial staff. In essence the entire population of 21 human resource managers drawn from the commercial banks in Port Harcourt was studied as sample. The primary data was gathered from the respondents through the use of self-constructed questionnaire while the secondary data was gathered from textbooks, journals, articles and websites. The research instrument used was the questionnaire. For this study, the face and content validity was used, while the reliability was verified by conducting a confirmatory test of internal consistency on the instrument with our sample using the Cronbach alpha. The researcher analyzed the data obtained in the field using statistical package for social science (SPSS) version 25. The data (research questions) were also analysed using descriptive and inferential statistical research tools. Spearman Rank Correlation Coefficient was used to ascertain the strength of relationship that exist among the variables, to determine the extent to which the independent variable accounted for change on the dependent variable, as well as to test the statistical significance that exists among variables respectively. Partial correlation was used for multivariate analysis.

DATA ANALYSIS

Here, the results of the findings are presented in line with the objectives of the study. The bivariate data was analyzed using Spearman's Rank Correlation with the aim of establishing a relationship among the various variables included in the work.

Relationship between artificial intelligence and recruitment among commercial banks in Rivers state

H_{O1}: There is no significant relationship between artificial intelligence and recruitment among commercial banks in Rivers state.

Table 1: Test for Correlation between artificial intelligence and recruitment among commercial banks in Rivers state

			AI	R
Spearman's rho	**AI**	Correlation Coefficient	1.000	.520**
		Sig. (2-tailed)		.000
		N	21	21
	R	Correlation Coefficient	.520**	1.000
		Sig. (2-tailed)	.000	
		N	21	21

**Correlation is significant at the 0.01 level (2-tailed).

The result as depicted in table 1 revealed that there is a moderate and positive relationship between artificial intelligence and recruitment among commercial banks in Rivers state. The data indicates that artificial intelligence is significantly associated with recruitment (where rho=.520 and $P<0.05$). The finding suggests that artificial intelligence enhances human resource procurement which is measured in terms of recruitment. Hence on the basis of the result, the null hypothesis (H_{01}) is rejected and the alternate accepted. This result implies that effective artificial intelligence in commercial banks can improve the recruitment process of the organization.

Relationship between artificial intelligence and selection among commercial banks in Rivers state

H_{O2}: There is no significant relationship between artificial intelligence and selection among commercial banks in Rivers state.

Table 2: Test for Correlation between artificial intelligence and selection among commercial banks in Rivers state

			AI	S
Spearman's rho	**AI**	Correlation Coefficient	1.000	.860**
		Sig. (2-tailed)		.000
		N	21	21
	S	Correlation Coefficient	.860**	1.000
		Sig. (2-tailed)	.000	
		N	21	21

**Correlation is significant at the 0.01 level (2-tailed).

The result as depicted in table 2 revealed that there is a very strong and positive relationship between artificial intelligence and selection among commercial banks in Rivers state. The data indicates that artificial intelligence is significantly associated with selection (where rho=.860 and P<0.05). The finding suggests that artificial intelligence enhances human resource procurement which is measured in terms of selection. Hence on the basis of the result, the null hypothesis (H_{02}) is rejected and the alternate accepted. This result implies that there is a significant relationship between artificial intelligence and selection among commercial banks in Rivers State.

Relationship between artificial intelligence and placement among commercial banks in Rivers state

H_{O3}: There is no significant relationship between artificial intelligence and placement among commercial banks in Rivers state.

Table 3: Test for Correlation between artificial intelligence and placement among commercial banks in Rivers state

			AI	P
Spearman's rho	**AI**	Correlation Coefficient	1.000	.971**
		Sig. (2-tailed)		.000
		N	21	21
	P	Correlation Coefficient	.971**	1.000
		Sig. (2-tailed)	.000	

	N	21	21

**Correlation is significant at the 0.01 level (2-tailed).

The result as depicted in table 3 revealed that there is a very strong and positive relationship between artificial intelligence and placement among commercial banks in Rivers state. The data indicates that artificial intelligence is significantly associated with placement (where rho=.971 and P<0.05). The finding suggests that artificial intelligence enhance human resource procurement which is measured in terms of placement. Hence on the basis of the result, the null hypothesis (H_{03}) is rejected and the alternate accepted. This means that there is a significant relationship between artificial intelligence and placement among commercial banks in Rivers State.

DISCUSSION OF FINDINGS

Relationship between artificial intelligence and recruitment among commercial banks in Rivers state

The result as depicted in table 1 revealed that there is a moderate and positive relationship between artificial intelligence and recruitment among commercial banks in Rivers state. The data indicates that artificial intelligence is significantly associated with recruitment (where rho=.520 and P<0.05). The finding suggests that artificial intelligence enhances human resource procurement which is measured in terms of recruitment. This result implies that there is a significant relationship between artificial intelligence and recruitment. This result is in line with the study of Migwei and Chuang (2021), who studied artificial intelligence method of Enterprise Human Resource Management Based on Simulated Annealing Algorithm. The result indicated that the human resources department of an enterprise relies on the "mining" of big data when carrying out human resource management and proposes a data mining method for enterprise human resource management based on the simulated annealing algorithm.

Relationship between data mining and selection among commercial banks in Rivers state

The result as depicted in table 2 revealed that there is a very strong and positive relationship between artificial intelligence and selection among commercial banks in Rivers state. The data indicates that

artificial intelligence is significantly associated with selection (where rho=.860 and P<0.05). The finding suggests that artificial intelligence enhances human resource procurement which is measured in terms of selection. This result implies that there is a significant relationship between artificial intelligence and selection among commercial banks in Rivers State. The finding is in accordance with the work of Migwei and Chuang (2021), who studied Data mining method of Enterprise Human Resource Management Based on Simulated Annealing Algorithm. The result indicated that the human resources department of an enterprise relies on the "mining" of big data when carrying out human resource management and proposes a data mining method for enterprise human resource management based on the simulated annealing algorithm.

Relationship between artificial intelligence and placement among commercial banks in Rivers state

The result as depicted in table 3 revealed that there is a very strong and positive relationship between artificial intelligence and placement among commercial banks in Rivers state. The data indicates that data mining is significantly associated with placement (where rho=.971 and P<0.05). The finding suggests that artificial intelligence enhance human resource procurement which is measured in terms of placement. This means that there is a significant relationship between artificial intelligence and placement among commercial banks in Rivers State. The finding suggests that artificial intelligence enhance human resource procurement which is measured in terms of placement. The finding is also in support of the work of Migwei and Chuang (2021), who studied Data mining method of Enterprise Human Resource Management Based on Simulated Annealing Algorithm. The result indicated that the human resources department of an enterprise relies on the "mining" of big data when carrying out human resource management and proposes a data mining method for enterprise human resource management based on the simulated annealing algorithm.

CONCLUSION AND RECOMMENDATIONS

Artificial Intelligence has become a strategic human resource tool in our current competitive business environment. The usage of AI in the workplace has improved HR functions such as recruitment, payroll, self-service transactions, access policies, and procedures in organizations. Based on the above findings, the study therefore concluded that there is a relationship between artificial intelligence and the measures of human resource procurement among commercial banks in Rivers State.

Based on the results of findings, the following recommendations were made:

1. Management of commercial banks in Rivers State should reduced recruitment costs by adopting Artificial Intelligence (AI) variable of data mining.
2. Management of commercial banks in Rivers State should introduce and adopt machine learning type of Artificial Intelligence in their organization's human resource practices.
3. Management of commercial banks in Rivers State should also introduce and adopt cloud computing type of Artificial Intelligence in their organization's day-to-day operations.

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