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# HUMAN RESOURCE ANALYTIC AND EXPERIENCE TEAM OF OIL FIRMS IN PORT HARCOURT

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## ABSTRACT

The study determined the relationship between human resource analytic and experienced team of Oil Firms in Port Harcourt. The study adopted the explanatory cross-sectional survey research design. The population of the study consisted of Twenty-Three (23) registered and licensed Oil Firms operating in Port Harcourt metropolis only. The sample size of the study consisted of the entire population since the population is small. Thus, the study adopted the census method of sampling. The study adopted the primary source of data. After validation by the supervisor and two other experts in Management and Test/Measurement, Cronbach Alpha Coefficient was used to test the reliability of the instrument. A total of One Hundred and Eighteen (118) copies of the validated questionnaires were distributed to the targeted audience. The researcher was able to retrieve One Hundred and Three (103) copies and was used for the analysis. Mean and standard deviation were used for the univariate analysis; Spearman Rank Order Correlation Coefficient was used for the bivariate analysis, while the multivariate analysis was done using Partial Correlation with the aid of SPSS version 23.00. The findings revealed that a significant positive relationship exists between human resource analytic and experienced team of Oil Firms in Port Harcourt. The study concluded that investing in a robust employee information system is a strategic move for oil firms aiming to enhance their workforce's ability to withstand and recover from unforeseen challenges. Therefore, it was recommended amongst others that management of Oil Firms should ensure that their onboarding process include comprehensive training on safety protocols, company culture and job specific skills to help new employee integrate smoothly and perform effectively; Management of Oil Firms should create a customizable dashboard for different stakeholders that display relevant human resource metrics and insight in a format that meet their specific needs.

***Key words: Human Resource Analytic, Experienced Team, Workforce Resilience***

## INTRODUCTION

In the intricate and high-stakes world of the oil and gas industry, managing a workforce effectively is pivotal to operational success. **Employee information systems (EIS)** are central to this management, offering a comprehensive technological solution for handling a wide range of human resource functions. These systems are designed to streamline and integrate various HR processes, from recruitment and onboarding to performance management and payroll, providing oil firms with the tools needed to efficiently manage their workforce in a complex and dynamic environment Nthiga & Samson, 2024). Employee information system helps oil firms address these challenges by centralizing employee data, facilitating real-time access to critical information, and automating routine administrative tasks. This centralized approach not only enhances operational efficiency but also supports strategic decision-making by providing actionable insights into workforce metrics, trends, and needs. Thus, it is a specialized software platform designed to manage and streamline

various aspects of employee data and human resource management within the organization (Nnaji, 2023). As the industry evolves with technological advancements and changing market conditions, employee information system provides the flexibility and scalability needed to adapt to new challenges. By incorporating advanced features such as data analytics, employee self-service portals, and integrated compliance tools, employee information system helps oil firms stay agile and responsive to industry changes, while also enhancing employee engagement and satisfaction (Okeke, 2021). However, recruitment system, manager/employee self-service portal and HR analytics/reporting system are considered dimensions of employee information system.

**HR Analytics and Reporting Systems** are also increasingly recognized as essential tools for enhancing human resource management. These systems provide oil firms with sophisticated capabilities to collect, analyze, and report on a wide range of workforce data, enabling more informed decisions and fostering a data-driven approach to managing human capital (Hossain, *et al.,* 2019; Kushwaha & Singh, 2021). They enable organizations to make more informed decisions, improve workforce management practices, and ultimately achieve greater operational efficiency and competitive edge in a complex and dynamic industry. This background necessitated this study.

**Research Hypothesis**

Ho1: There is no significant relationship between HR analytics/reporting system and experienced team of Oil Firms in Rivers State.

**HR Analytics/Reporting System**

HR analytics/reporting system is an essential tool for organizations aiming to optimize their human resources, improve decision-making, and enhance overall organizational performance through data-driven insights. HR analytics and reporting provide organizations with the ability to make informed decisions based on data rather than intuition or guesswork. By analyzing workforce metrics, companies can identify trends, understand employee behaviors, and predict future outcomes. For example, if a company is experiencing high turnover rates, HR analytics can help pinpoint the reasons behind this trend, allowing management to take corrective actions. Hendrickson (2003) averred that an effective HR reporting system helps optimize talent acquisition strategies by analyzing recruitment data. This includes tracking the number of applicants per job posting, acceptance rates, and time-to-hire metrics. By understanding these factors, organizations can refine their recruitment processes to attract better candidates and reduce hiring times (Hossain, *et al.,* 2019).

**According to** Kushwaha and Singh (2021), **HR analytics/reporting system** is a digital platform or software solution that collects, analyzes, and reports on human resource (HR) data to provide insights that help organizations make informed decisions about their workforce. This system is an integral part of modern Human Resource Management Systems (HRMS) and is designed to support data-driven decision-making in HR functions. HR analytics allows for continuous monitoring of employee performance through key performance indicators (KPIs). By evaluating performance data regularly, managers can identify high performers and those who may need additional support or training. This leads to more targeted development initiatives that enhance overall workforce productivity. An

HR reporting system plays a crucial role in identifying compliance risks related to labor laws and regulations. By tracking metrics such as hours worked, compensation details, and absenteeism rates, organizations can ensure they are adhering to legal requirements while also mitigating potential liabilities (Kushwaha & Singh, 2021).

A system that uses data analysis techniques to evaluate HR-related data, identifying patterns, trends, and correlations that can inform strategic decisions. It focuses on measuring key HR metrics such as employee turnover, productivity, recruitment effectiveness, and employee engagement. Although, Kehoe and Boughton (2018) asserted that one of the most significant challenges in HR analytics is ensuring the quality of the data being collected and analyzed. Poor data quality can stem from various sources, including incomplete records, inconsistent data entry practices, and outdated information. If the underlying data is flawed, any insights derived from it will also be unreliable, leading to misguided decisions. Many HR professionals may not possess the necessary analytical skills to interpret complex data sets effectively. This skill gap can hinder their ability to derive actionable insights from analytics tools and reports (Parry, 2011). Organizations may need to invest in training or hire specialized personnel to bridge this gap. Implementing an analytics system often requires a cultural shift within the organization. Employees may resist adopting new technologies or processes due to fear of job displacement or skepticism about the accuracy of automated systems. Overcoming this resistance is crucial for successful implementation. Many organizations, particularly smaller ones, may lack the necessary IT infrastructure to support advanced analytics initiatives effectively. Implementing a robust HR analytics system often requires substantial investment in technology and ongoing maintenance, which can be a barrier for resource-constrained organizations.

**Experienced Team**

Having an experienced team in oil firms is a valuable asset, bringing together a wealth of knowledge, skills, and expertise that are essential for the successful operation and growth of the business (Cosmas, & Macdonald, 2022). Their contributions are critical in navigating the complexities of the oil and gas industry and driving the firm's continued success. Operationally, an **experienced team** in oil firms refers to a group of professionals who possess significant expertise, knowledge, and practical skills acquired through years of working in the oil and gas industry. This team typically includes a mix of engineers, geologists, drilling experts, project managers, safety specialists, and other industry-specific roles, all of whom have extensive experience in the exploration, extraction, production, and management of oil and gas resources. From a business perspective, including experienced professionals can yield significant returns on investment (ROI). Their ability to navigate complex challenges effectively can lead to faster growth, increased profitability, and enhanced competitiveness for the organization. Furthermore, having seasoned experts can instill confidence in investors, clients, and stakeholders by bolstering the company's reputation (Duit in Cosmas, & Macdonald, 2022).

Ipl (2023) defines experienced team is seen as set of individuals in a firm that their good effort intended to strengthen the capability to fulfill firm's mission effectively and efficiently. If the numbers of people available are more than the work it indicates that the organization (oil companies) has surplus workforce. In this type of organization, having this quality staff will trigger their productivity extent and make them gain competitive advantage over others (Akamute in Schott, *et al.,* 2015). Professionals with extensive experience typically have built vast networks of contacts throughout their careers. These connections can open doors

to new opportunities such as partnerships, funding, or attracting top talent. Leveraging these networks can help businesses expand their reach, access resources, and maintain a competitive edge in the market. Experienced professionals often exhibit strong leadership qualities, including confidence, decisiveness, and emotional intelligence. They inspire and motivate their teams by setting high standards of performance and accountability while fostering a positive work culture that encourages collaboration.

As noted by Pat (2017), experienced team is the intellectual workforce an organization has at her disposal which is capable of matching with services it is designed to serve. Organizations with unintellectual workforce will obstruct cooperate reputation through rendering of poor services and low productivity. Experienced professionals possess a wealth of knowledge and expertise acquired through years of working in their respective fields. This background equips them with valuable insights, skills, and best practices that enable them to tackle complex challenges confidently. Their ability to draw from past experiences allows them to anticipate potential obstacles and devise effective strategies to overcome them (Ismael, 2023). Experienced team members often serve as mentors for less experienced colleagues. By sharing their knowledge and wisdom, they help cultivate a culture of learning and growth within the organization. Junior team members benefit from this mentorship by gaining valuable skills and insights that will aid their professional development, ultimately enhancing overall team performance (Uk, 2021). Average tenure and certificate/qualification are regarded as indicators of experienced team.

**Empirical Review**

Okeke (2021) examined the effect of management information system on organizational performance in manufacturing firms in Anambra State, Nigeria. The study aim examined the effect of management information system on organizational performance in manufacturing firms. The area of the study was manufacturing firms in Anambra state. Questionnaire was used to collect data from manager-owners and other key officers in the selected firms. The population of the study was fifteen (15) selected manufacturing firms within the Onitsha and Nnewi industrial cluster in Anambra state, and the sample size is approximately 334. The research adopted sampling technique was purposive sampling. From the analyses tested, the study found out that Decision support system has significant effect on performance effectiveness in manufacturing firm, Process control system has significant effect on performance efficiency in manufacturing firm, Artificial intelligence has significant effect on performance efficiency in manufacturing firm. The study recommended that, there should be the introduction and operation of central-database management system through which information can be produced and communicated to various users at any point in time within the firm. There should also be flexibility in the nature/pattern and structure of management system in organizations so as to permit informed and easy information flow and accessibility to all information end-users. Organizations should also pay more attention to communication through the media agencies. This goes a long way to promoting the company's control of the market.

Nthiga and Samson (2024) examined the effect of human resource information systems on efficiency of information management on employees' performance at Murang'a water and sanitation companies, Kenya. The main purpose of the study was to establish the effect of Human Resource Information Systems (HRIS) on employee's performance in Murang'a Water Companies in Murang'a County which are five in number. The target population was three Water Companies namely: Kahuti Water and Sanitation Company, Gatamathi Water

and Sanitation Company Limited and Murang'a South Water and Sanitation Co. Ltd. The study adopted descriptive design to determine the effects of human resource information system on employee's performance.. Data for the study was primary obtained by use of a survey tool. It was collected using a questionnaire. The filled questionnaires were checked for completeness and then coded and the data analyzed. A correlation model for establishing presence and magnitude of dependence using significance levels was applied to the effect of Human Resource Information Systems (HRIS) on employee's performance. The findings of the study established that human resource information system is used in the selected Water Companies in Murang'a Count y; the institutions have adopted HRIS in their operation; the impact on adoption and implementation of HRIS involved the regulatory as an environmental impact on adoption and implementation of human resource information system and an effective HRIS provides information on just about anything the companies needs to track and analyze about employees, The study made recommendations that a functional Human Resource Information System should be adopted by Water Companies/Other Organizations in order get improved productivity and efficiency on employee's performance. The organization should update their Human resource information systems to ensure that they using the newest version of technology in the market which save more time and increases efficiency. The organization should continue training the employees on the use of the Human resource systems as the need arises. The organizations should automate all other functions and also provide back up to prevent loss of data.

## METHODOLOGY

The explanatory cross sectional survey research design was adopted for this study. The accessible population of the study consisted of Twenty-Three (23) registered and licensed Oil Firms operating in Rivers State metropolis only. The researcher visited the Port Harcourt office of Nigerian Upstream Petroleum Regulatory Commission (NURC) (formerly known as Department of Petroleum Resources (DPR) to obtain this information. However, when the researcher embarked on a tour of Port Harcourt Metropolis for preliminary interaction with their managers, the researcher discovered that most of the registered Oil Firms are not operating. The sample size of the study consisted of the entire population since the population is small. Thus, the study adopted the census method of sampling. Structured questionnaire served as the instrument for data collection. A total of One Hundred and Eighteen (118) copies of the validated questionnaires were distributed to the targeted audience. The researcher was able to retrieve One Hundred and Three (103) copies and was used for the analysis. Mean and standard deviation were used for the univariate analysis while the bivariate analysis was done using Spearman Rank Order Correlation Coefficient with the aid of SPSS Version 23.0. Multivariate analysis was done using Partial Correlation.

## RESULTS

$Ho_1$: There is no significant relationship between HR analytics/reporting system and experienced team of Oil Firms in Rivers State.

**Correlations between HR Analytics/Reporting System and Experienced Team**

| | | | HR Analytics/Reporting System | Experienced Team |
|---|---|---|---|---|
| Spearman's rho | HR Analytics/Reporting System | Correlation Coefficient | 1.000 | **.888**** |
| | | Sig. (2-tailed) | . | .000 |
| | | N | 103 | 103 |
| | Experienced Team | Correlation Coefficient | **.888**** | 1.000 |
| | | Sig. (2-tailed) | .000 | . |
| | | N | 103 | 103 |

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

Source: Survey Data, 2024.

Table 1 above reveals r value of 0.888 at a significance level of 0.00 which is less than the chosen alpha level of 0.05 for the hypothesis relating HR analytics/reporting system and experienced team. Since the significance value 0.00 is less than the alpha level of 0.05, the null hypothesis ($Ho_1$) which states that there is no significant relationship between HR analytics/reporting system and experienced team of Oil Firms in Rivers State was rejected and the alternate hypothesis ($Ha_1$) was accepted. This implies that there is a very strong positive relationship between HR analytics/reporting system and experienced team of Oil Firms in Rivers State.

## CONCLUSION

Based on the analyses and discussion of findings, the study concluded that there is a significant positive relationship between human resource analytic and experienced team of Oil Firms in Port Harcourt. Investing in a robust employee information system is a strategic move for oil firms aiming to enhance their workforce's ability to withstand and recover from unforeseen challenges.

## RECOMMENDATIONS

Based on the findings, the following recommendations were made:

1. Management of Oil Firms should ensure that their portals are mobile-responsive so that managers and employees can access them from any devices including smartphones and tablets.
2. Management of Oil Firms should ensure that human resource analytics initiatives are closely aligned with the overall business strategy of the oil industry.
3. Management of Oil Firms should invest in sophisticated human resource analytics tools that can handle large datasets and perform complex analyses.
4. Management of Oil Firms should create a customizable dashboard for different stakeholders that display relevant human resource metrics and insight in a format that meet their specific needs.

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