

HUMAN RESOURCE ANALYTICS AND TALENT RETENTION OF OIL FIRMS IN RIVERS STATE

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ABSTRACT

The study determined the relationship between HR analytics/Reporting System and Talent Retention of Oil Firms in Port Harcourt. The objectives of the study were to determine how HR analytics/reporting system relate with talent retention. 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. 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. The findings revealed that a significant positive relationship exists between HR analytics/reporting system and talent retention of Oil Firms in Rivers State. 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.

Keywords: HR analytics/Reporting System, Talent Retention, Composition Benefit, Head Count

INTRODUCTION

In the oil and gas industry, where specialized skills, technical expertise, and deep industry knowledge are paramount, the ability to attract, develop, and retain top talent is a key driver of organizational success. Keeping skilled and high-performing employees within the organization over the long term has become increasingly critical as the industry faces a range of challenges, including fluctuating oil prices, rapid technological advancements, and a shrinking pool of experienced professionals due to demographic shifts and retirement trends (Harathova, 2019). The value of an experienced team cannot be overstated in the oil and gas industry, where operations are often complex, high-risk, and geographically dispersed. Experienced teams comprising individuals with extensive knowledge, technical skills, and industry-specific expertise are the backbone of successful oil firms. These teams possess the deep understanding required to navigate the intricacies of exploration, production, and distribution, ensuring that projects are executed safely, efficiently, and in compliance with regulatory standards (Ismael, 2023). In the fast-paced and highly dynamic oil and gas industry, the ability to adapt quickly to changing conditions is crucial for maintaining operational efficiency and competitiveness. The capacity of employees to adjust to different roles, responsibilities, and working conditions is a critical asset for oil firms facing a volatile market, technological advancements, and complex regulatory environments (Luc, 2022).

Conceptually, talent retention refers to the strategic efforts and practices that organizations in the oil and gas industry implement to keep their skilled and experienced employees engaged, satisfied, and committed to staying with the company for the long term. Given the highly specialized nature

of work in the oil industry, retaining top talent is crucial for maintaining operational efficiency, innovation, and competitive advantage. It is also organizational practices of keeping high skilled (talented) employees with the company or organization as long as possible. This leads to increased productivity and successful completion of strategic goals. A talented employee is someone who is able to surpass others and does not need to try his best to use it, they excel easily, thus, organizational ability to ensure that these talents possessed employees are always put in use to solve organizational challenges determined how effective they are (Govaerts, 2015). Talented people have outstanding qualities and capabilities to be able to undertake a difficult or complex job or field of operation and achieve results. They have effectively, very high quality, sometimes highest in a certain range. Talents are people with broad knowledge, high intelligence, skilled career (Irshad, 2014). They have the purpose of living in accordance with the development trend of society. Besides, they are people with political ideals and have motives to live in a bright society. Talents are people who have high professional qualifications and professional ethical qualities as well as good human dignity that are respected by the intelligence and scientific working methods. 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).

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.

Objectives of the Study

1. To determine the relationship between HR analytics/reporting system and talent retention of Oil Firms in Rivers State.

Research Question

1. How does HR analytics/reporting system relate with talent retention of Oil Firms in Rivers State?

Research Hypothesis

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

HR Analytics/Reporting System

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.

A system that analyzes and generates reports based on HR data, providing a clear and structured view of key HR metrics and performance indicators. These reports are used by HR professionals and management to monitor and assess the effectiveness of HR policies and practices. Implementing an HR reporting system can lead to significant cost savings by streamlining processes such as payroll management, benefits administration, and compliance tracking. Automation of these functions reduces manual errors and frees up HR professionals to focus on more strategic initiatives. Nnaji (2023) opined that HR analytics fosters a culture of transparency within an organization by providing clear insights into workforce dynamics. When employees see that their performance is being tracked and reported on objectively, it encourages accountability and motivates them to perform at their best. By leveraging HR analytics, organizations can engage in strategic workforce planning that aligns human resources with business goals. This involves forecasting future staffing needs based on current trends and organizational objectives, ensuring that the right talent is available when needed. Thus, headcount/workforce composition and compensation/benefits are considered as indicators of HR analytics /reporting system.

Headcount/Workforce Composition: Headcount refers to the total number of individuals employed within an organization at a given time. This includes all types of employees, such as full-time, part-time, temporary, and contract workers. Understanding headcount is crucial for HR professionals and managers as it provides insights into the size and structure of the workforce (Ruël, *et al.*, 2014). It serves as a key metric for various purposes, including resource allocation, budgeting, and growth strategies. Workforce Composition, on the other hand, encompasses the demographic and skill makeup of the employees within an organization. This includes factors such as age, gender, race, ethnicity, socioeconomic background, and disability status. Analyzing workforce composition helps organizations assess diversity and inclusion within their workforce while also identifying skills gaps that may need to be addressed through targeted recruitment or training initiatives.

Talent Retention

We are in a world where industrialization and commercialization are the order of the day; and every organization is in the quest for promoting efficiency and effectiveness that could lead to organizational performance (Gebelein, 2016). In competitive market place, talent retention is a primary driver for organizational success. However, Stockley (2013) defines talent retention as the mindful, thoughtful approach embarks on to fascinate, improve, attract and retain people with the skills and abilities to meet current and future contingencies of the organizations. Talent retention is concerned with staffing, identification of skills and abilities, retention, supervision and management, development of employees to increase performance. Thus, talent retention as a wider concept focuses on how best an organization can entice, preserve, attract, improve, manage, retain and maintain necessary talent (D'Annunzio-Green, 2018). Talent retention strategy tries to ensure that existing talented, worthy, and committed people are contributing in achieving the existing and future needs of organization, and this procedure is the talent pool (Harathova, 2019). Talent retention has been considered as the fundamental tool that triggers organizational growth, survival and performance. A lot of work has been put into various researches across the globe on issues concerning talent management as companies are beginning to see every day the importance of human resource in an organization as the cost of recruiting, training and developing is increasing every year due to globalization and vast economic change and also hunt for talent (Cheng & Ho, 2011).

They have good ideas to business executives, have the ability to create innovate, initiate or solve timely problems if any in the business activities (Schuler, *et al.*, 2011). Retaining talent requires managers to consider ensuring that talented people always want to be dedicated and committed to sticking to their organization, promoting all their capabilities to the organization (Kossivi, 2016). Retaining talent needs to create opportunities for them to develop ideas for their own initiative to work, ensure working conditions for them, affect their loyalty and commitment.

Mohammed (2015) equally asserts that talent retention consists of a set of practices and policies adopted by organizations to ensure that their above-average professionals remain among them. Retention of a positive and motivated employee is very important for the organization's success; this is because it increases morale of employees to work greatly in attaining greater goals. Employees who enjoy what they do and the atmosphere in which they work are more likely to remain employed with their organization over a longer period of time. Establishing a talent retention program in a company is demanding. Attracting and retaining talent is one of the constant pursuits that every organization faces. But amidst so many retention methods developed by modern organizations, there are still those who do not understand the importance of retaining talent. Talent retention helps the organization in several ways. In addition to helping to keep people who stand out, it helps in prospecting for new employees and motivating employees (Mohammed, 2015). Umamaheswari and Krishnan (2016) postulates that talent retention consist of a set of practices and policies adopted by companies to ensure that their above-average professionals remain in it for much longer. With that, it is possible to build a great competitive differential. It is these talents that take the results of an organization to high levels. Therefore, retention is of great importance. However, talent retention deals with construction of a more pleasant working environment; guarantee of greater engagement; productivity increase; fluidity in decision making; helps in the country's economy; it guarantees the intellectual capital of the organization. Overall turnover rate and retention rate are indicators of talent retention in his study.

Theoretical Review

This work is anchored on Roger's (1962) Diffusion of Innovation Theory. Roger's Diffusion of Innovation Theory explains the processes involved in the adoption of innovations such as new technologies, techniques, and procedures and well as the resultant effects of such steps on organizational processes. The diffusion of innovation theory assumes that:

- i) In a social system, there will always be a disparity in the level and time at which individuals within a given social system adopt new ideas, techniques, and technology.
- ii) Individuals and arms of institutions that adopt innovations early will naturally outperform late adopters and the laggards.

The implication of this theory is that as individual and institutions advance in the use of sophisticated devices, there will naturally be a disparity on how productivity is enhanced by both category of people in the society. While some individuals are digitally compliant and digitally literate enough to carry out online operations, there are still those who still find it difficult to operate simple smart phones. The fact is that while those with digital skills interface with better productivity, others are bedeviled with low productivity while those who embrace and adopt emerging digital work environment enjoy speed, efficiency and high level effectiveness in coping with socio-personal functions others are battling with job stress.

Research Design

The explanatory cross sectional survey research design was adopted for this study.

Research Population

The accessible population of the study consisted of Twenty-two (22) registered and licensed Oil Firms operating in Rivers State metropolis only.

Sample/Sampling Techniques

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. In terms of respondents, six (6) top level managers were purposively selected from each of the Twenty-Three (22) registered and licensed Oil Firms in their city headquarters. The managers selected

Instrumentation and Measurement

Structured questionnaire served as the instrument for data collection.

Method of Data 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.

HR Analytics/Reporting System and Workforce Resilience

H₀₇: There is no significant relationship between HR analytics/reporting system and talent retention of Oil Firms in Rivers State.

Table 1 Correlation between HR Analytics/Reporting System and Talent Retention

		HR Analytics/Reporting System	Talent Retention
Spearman's rho	HR analytics/reporting system	Correlation Coefficient	1.000
		Sig. (2-tailed)	.000
		N	103
Talent Retention		Correlation Coefficient	.611**
		Sig. (2-tailed)	1.000
		N	.000
		N	103

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

Source: Survey Data, 2024.

Table 1 above reveals r value of 0.611 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 talent retention. Since the significance value 0.00 is less than the alpha level of 0.05, the null hypothesis (H₀₁) which states that there is no significant relationship between HR analytics/reporting system and talent

retention of Oil Firms in Rivers State was rejected and the alternate hypothesis (H_{a1}) was accepted. This implies that there is a strong positive relationship between HR analytics/reporting system and talent retention of Oil Firms in Rivers State.

HR Analytics/Reporting System and talent retention

The test of hypothesis one revealed that there is a significant positive relationship between HR analytics/reporting system and talent retention of Oil Firms in Port Harcourt. This implies that proper adoption of headcount/workforce composition and compensation/benefits brings about a corresponding improvement of workforce resilience in terms of talent retention, experienced workforce and staff flexibility of Oil Firms in Port Harcourt. This is because HR analytics/reporting systems play a critical role in enhancing talent retention by providing actionable insights that support informed decision-making, optimize workforce strategies, and enable proactive management of challenges. By leveraging data on employee engagement, skill gaps, diversity, health, and well-being, organizations can create a more adaptable, engaged, and prepared workforce. In the high-stakes environment of oil firms, where the ability to respond swiftly and effectively to challenges is crucial, HR Analytics is an essential tool for building and sustaining workforce resilience (talent retention, experienced workforce and staff flexibility). HR Analytics systems provide managers and HR leaders with real-time data and insights on employee performance, engagement, turnover, and other critical metrics. This information allows for informed decision-making, enabling the organization to proactively address issues before they impact workforce resilience (Ou, *et al.*, 2011).

CONCLUSION

Based on the analyses and discussion of findings, the study concluded that there is a significant positive relationship HR analytics/ reporting system and talent retention 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 adopt artificial intelligence driven tools and data analytics to streamline their recruitment process.
2. 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.
3. Management of Oil Firms should provide manager with real-time data on employee performance attendance and project status to enable them make informed decision.
4. Management of Oil Firms should ensure that human resource analytics initiatives are closely aligned with the overall business strategy of the oil industry.
5. Management of Oil Firms should invest in sophisticated human resource analytics tools that can handle large datasets and perform complex analyses.
6. 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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