Chapter 9

Information System and Talent Retention of Oil Firms

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Abstract
This chapter in book relevant scholarly materials on the variables under investigation. The chapter started with a conceptual review. In the conceptual review, effort was made to define key variables as reflected of this work. Relevant theory was also reviewed to provide insight into the theoretical underpinning of the study. Empirical studies were reviewed and their findings showed that employee information system and it's dimensions has promoted employee/organizational outcome of several organization within and outside Nigeria.

Introduction
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.

Recruitment systems in oil firms are specialized tools and processes designed to attract, assess, and onboard the skilled professionals required to meet the sector's unique demands. These systems are integral to ensuring that the right individuals are selected for critical roles, from technical experts and engineers to field operators and support staff (AlHamad*, et al.,* 2022). Recruitment systems play a strategic role in shaping the workforce's future by enabling oil firms to build a talent pipeline that aligns with their long-term goals and operational requirements. With advanced features such as automated job postings, applicant tracking, and data analytics, these systems facilitate efficient and data-driven hiring decisions, helping firms stay competitive and responsive in a rapidly evolving industry (Shamout, *et al.,* 2022).

Manager/employee self-service portals are increasingly becoming a cornerstone of modern human resource management systems in oil firms. These portals empower both managers and employees by providing them with direct access to essential HR functions and information, thereby streamlining administrative processes and enhancing overall organizational effectiveness. Self-service portals enable employees to handle various HR tasks independently, such as accessing pay slips, managing benefits, updating personal information, and requesting time off (Cho, *et al.,* 2020;

Haider, *et al.,* 2021). This autonomy not only improves efficiency by reducing the administrative burden on HR departments but also increases employee satisfaction by providing a user-friendly platform for managing their work-related needs. In the context of the oil industry, where employees may work in remote or challenging environments, the ability to access and manage HR information online is particularly valuable.

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.

Concept of Employee Information System

An employee information system (EIS) in oil firms, like in other industries, is a digital platform designed to manage and streamline human resource (HR) processes. These systems are crucial in the oil and gas industry, where managing a large, diverse, and often geographically dispersed workforce is essential. An effective EIS in an oil firm ensures that HR processes are handled efficiently, supporting the company's operational needs and regulatory requirements. The oil and gas industry is heavily regulated, requiring strict adherence to safety and environmental standards. An effective EIS helps firms maintain compliance by tracking employee certifications and training requirements. It also facilitates accurate reporting to regulatory bodies by providing timely access to necessary documentation and data analytics (Almazán, *et al.,* 2017).

Oil firms often operate across multiple locations, including remote and offshore sites. An EIS helps manage a large, geographically dispersed workforce efficiently, ensuring that HR processes are streamlined and consistent across all locations. The oil industry is highly regulated, especially concerning safety and environmental standards. An EIS tracks compliance with these regulations, including safety training, certifications, and incident reporting, reducing the risk of non-compliance penalties (Okpokwasili, 2018). Automating routine HR tasks like payroll, leave management, and performance reviews reduces administrative burdens, allowing HR teams to focus on strategic initiatives. Efficient management of human resources ensures that the right personnel are available where needed, whether for ongoing operations or special projects. Okeke (2021) averred that an EIS ensures that employees have completed necessary safety training and that incidents are reported and addressed promptly. This is crucial in an industry where safety is paramount. Managing health benefits, tracking medical records, and ensuring access to healthcare are vital, especially for employees working in hazardous or remote environments. Efficient leave management and support for employee well-being can improve job satisfaction and reduce turnover in an industry known for its demanding work conditions.

Operationally, employee information system (EIS) in oil firms is a specialized software platform designed to manage and streamline various aspects of employee data and human resource management within the organization. An Employee Information System (EIS) is crucial for oil firms as it streamlines various human resource processes. This includes recruitment, onboarding, payroll management, and performance evaluations (Khresat, 2015). By automating these tasks, oil companies can significantly reduce the time spent on administrative duties, allowing HR professionals to focus on strategic initiatives that enhance workforce productivity. An EIS provides a centralized database for managing employee information such as personal details, employment history, certifications, and training records. This ensures that all relevant data is easily accessible and up-to-date, which is essential for compliance with industry regulations and safety standards. By reducing manual processes through automation provided by an EIS, oil firms can lower operational costs associated with human resources management. The reduction in errors due to automated data entry also contributes to cost savings over time. An EIS can improve employee engagement by providing self-service options for employees to manage their information, request

time off, or access pay stubs. This empowerment leads to higher job satisfaction as employees feel more in control of their work-related information (Munirat, *et al.,* 2014).

Manager/Employee Self-Service Portal

Manager/employee self-service portals are crucial tools that enhance operational efficiency, improve employee engagement, ensure data accuracy, provide flexibility in remote work settings, and contribute to cost savings within organizations. A **manager/employee self-service portal** is a digital platform that allows both employees and managers to access and manage various HR-related tasks and information independently, without needing to go through HR personnel for routine activities (Luenendonk, 2017). These portals are a crucial part of modern Human Resource Management Systems (HRMS) and are designed to enhance efficiency, transparency, and accessibility within an organization. ESS portals create transparency in various HR processes. For instance, when an employee submits a leave request through the portal, they can track its status in real-time. This visibility reduces uncertainty and unnecessary follow-up inquiries, allowing both employees and managers to have clear expectations regarding timelines and approvals. As remote work becomes increasingly common, ESS portals provide essential flexibility for employees who may not be physically present in the office (Rehab, 2018). These web-based platforms allow employees to access necessary information and perform tasks from anywhere at any time, facilitating seamless operations regardless of location. The portal provides managers with access to HR analytics, allowing them to make data-driven decisions regarding staffing, training needs, and performance management (Cho, *et al.,* 2020).

According to Nthiga and Samson (2024), manager and employee self-service (ESS) portals significantly streamline administrative processes within organizations. By allowing employees to manage their own HR-related tasks such as updating personal information, submitting leave requests, and accessing pay stubs these portals reduce the administrative burden on HR departments. This automation minimizes manual data entry and processing time, enabling HR professionals to focus on more strategic initiatives that contribute to the organization's success. Self-service portals empower employees by providing them with direct access to the information they need at any time. This autonomy fosters a sense of ownership over their work-related tasks, leading to increased job satisfaction. Employees appreciate being able to handle routine inquiries without waiting for HR responses, which can enhance overall engagement levels within the workforce. Managers can approve leave requests, shift changes, and other HR-related tasks directly through the portal, speeding up decision-making and reducing bottlenecks (Audeh & Mansour, 2018). Direct input by employees and managers reduces the likelihood of errors in HR data, ensuring that records are up-to-date and accurate. Managers can use the portal to monitor attendance, track work hours, and manage shifts, which helps in optimizing resource allocation and ensuring that projects are staffed appropriately.

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).

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. 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.

Concept of System Design/Functionality

System design/functionality is critical for ensuring efficient, safe, and compliant operations. It encompasses a wide range of capabilities, from automation and data management to safety, environmental monitoring, and cybersecurity. Properly designed systems not only enhance productivity and reduce costs but also ensure that the firm can adapt to changing market conditions, technological advancements, and regulatory requirements (Amirize, 2021). The oil and gas industry involves multiple technical areas such as drilling, reservoir management, production chemistry, and pipeline engineering. A well-structured system design ensures that these diverse teams can work together effectively, sharing information and aligning their objectives to achieve common goals. This interdisciplinary approach minimizes the risk of miscommunication and enhances overall project efficiency. Effective system design encompasses lifecycle management, which is vital for optimizing performance from conceptualization through decommissioning. By considering the entire lifecycle of a project, oil firms can identify potential issues early on, reduce costs, and enhance safety measures throughout operations. This holistic view allows companies to make informed decisions that positively impact both short-term outcomes and long-term sustainability (Odu, 2021). A critical aspect of system functionality is requirements analysis, which involves defining technical specifications, environmental considerations, safety standards, and regulatory compliance needs. By thoroughly understanding these requirements during the design phase, oil firms can ensure that their projects meet industry standards while minimizing risks associated with non-compliance or operational failures.

System design/functionality in oil firms refers to the architecture and operational capabilities of technological and organizational systems that support the various processes within the industry. This includes the design and functionality of software, hardware, and integrated systems used in

exploration, production, refining, transportation, and management of oil and gas resources. The inherent complexities of the oil and gas sector necessitate robust risk management strategies integrated into system design. Systems engineers assess potential hazards throughout the project lifecycle and develop mitigation strategies to address them proactively (Garud; Bailetti in Cerere, 2013). This focus on risk management helps prevent accidents and ensures safe operations in an industry where safety is paramount. Oil projects often require the integration of various technologies for drilling, extraction, processing, and transportation. A well-designed system facilitates this integration by ensuring that all components function cohesively to achieve project objectives. This seamless interaction between technologies enhances operational efficiency and reduces downtime caused by equipment failures or incompatibilities.

CONCLUSION

It was also concluded that system design and functionality has a moderating effect on the relationship between employee information system and workforce resilience of Oil Firms on 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.

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