THE IMPACT OF HUMAN RESOURCE MANAGEMENT ON CONSTRUCTION PRODUCTIVITY

BY

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i

CERTIFICATION

This is to certify that, this project work was carried out by ADESOKAN AYODELE OLUSHOLA, HND/23/QTS/FT/0040, read and approved as meeting the requirement for the award of Higher National Diploma (HND) in Quantity Surveying, Kwara State Polytechnic, Ilorin.

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DEDICATION

I wholeheartedly dedicate this research project to the Almighty God, my sustainer and provider, whose grace and guidance have seen me through every step of this journey.

This work is also dedicated to my beloved parents, Mr. and Mrs. Adesokan Rufus Kehinde, and to all my amazing sisters. Your unwavering love, support and encouragement have been my greatest motivation. Your belief in me has fueled my determination to strive for excellence.

This achievement is not mine alone, it is a reflection of your sacrifices, prayers and endless support.

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ABSTRACT

The aim of this study is to investigates the impact of Human Resource Management (HRM) practices on construction productivity, with a particular focus on Quantity Surveying professionals. The construction sector is critical to national development but continues to face challenges such as poor recruitment practices, limited employee engagement, inadequate workforce development, and high labor turnover. Effective HRM is therefore essential for improving performance and achieving successful project outcomes. A quantitative research approach was adopted, and data was collected through structured, close-ended questionnaires administered to 89 construction professionals in Oyo State, including quantity surveyors, site engineers, project managers, and builders. The data was analyzed using two statistical tools: the Relative Importance Index (RII), which was used to rank HRM factors based on their perceived importance, and the Pearson Correlation Coefficient, which measured the strength and direction of the relationship between HRM variables and productivity levels. Findings from the study revealed that HRM practices such as recruitment and selection, employee development, and engagement significantly influence construction productivity. Additionally, the analysis confirmed strong positive correlations between effective HRM strategies and improved workforce performance. The study also emphasized the role of technology, safety culture, and employee well-being as critical components of productive construction environments. In conclusion, the study underscores the importance of adopting structured, inclusive, and data driven HRM practices in the construction sector to enhance productivity, reduce delays, and support sustainable project delivery. The research offers practical recommendations for construction firms, policymakers, and academic stakeholders committed to improving labor efficiency and project success in Nigeria.

TABLE OF CONTENTS

CHAPTER 1

INTRODUCTION

This chapter discusses the general background of the study, highlighting the role of Human Resource Management (HRM) practices in improving productivity in the construction industry. It presents the statement of the research problem, identifying key workforce management challenges affecting project efficiency. Additionally, the chapter outlines the research questions, aim, and objectives, which provide a structured approach to the study. The significance of the study explains the relevance of the research to construction firms, policymakers, and academia, while the scope and limitations of the study define its focus area. Finally, the definition of terms clarifies key concepts used throughout the research.

1.1   BACKGROUND OF THE STUDY

Human Resource Management (HRM) plays a significant role in enhancing productivity across industries, and in the context of Quantity Surveying practice and construction works, its impact is particularly profound. The construction industry is a major contributor to national economies worldwide, providing employment opportunities for millions of skilled and unskilled workers. The construction industry is a major contributor to national economies worldwide, generating employment for millions of skilled and unskilled workers. In Nigeria, the sector plays a critical role in infrastructure development, urbanization, and economic growth (Egbebi, 2024). However, managing human resources effectively in this dynamic and often challenging environment is crucial for the success of construction projects. Human Resources Management (HRM) in construction entails strategic planning, recruitment, training and development of skilled personnel to meet projects goals while maintaining safety and efficiency (Egbebi, 2024).

HRM practices have been widely recognized as key determinants of workforce performance in the construction industry. Effective HRM strategies, such as structured recruitment, employee motivation, performance management, and leadership development, have been shown to improve labor productivity and project outcomes (Ahn & Lee, 2015, cited in Egbebi, 2024). Also, workers

performance is the most important of work output; because it is related to the task's completion, and achievement construction objectives; ensuring growth and sustainability (Mohammed et al., 2024). Workforce diversity and inclusion play a crucial role in improving team collaboration and innovation in the construction sector. Studies suggest that multicultural teams tend to exhibit higher adaptability and performance levels, which are essential for navigating modern construction challenges (Loosemore & Lim, 2017, cited in Egbebi, 2024).

One of the critical challenges in the industry is age and experience, usually encompasses work experience as a factor concerning productivity. With a negative impact of "Age and Experience," shortage of experienced labor, high rate of labor turnover, and unrealistic deadlines for project completion were identified as diversity factors. Since the labor-intensive construction industry strongly relies on and demands excellent skills and experience of the workforce, a lack of experience labor can severely affect project deadlines, cost and quality of works done (Daeyoun Won et al., 2020).

In Quantity Surveying practice, HRM is critical in managing teams that handle cost estimation, project budgeting, and resource allocation. The productivity of Quantity Surveying practitioners is closely linked to their ability to work collaboratively, adhere to project schedules, and manage resources effectively.

Performance-based rewards, professional development opportunities, and communication systems have been identified as key HRM strategies that enhance the effectiveness of Quantity Surveyors. Research findings indicate that organizations that implement structured HRM frameworks experience better project cost estimations and timely delivery of construction projects (Afolabi et al., 2021). This initiative led to a noticeable improvement in employee morale, a decrease in the absenteeism, and a higher rate of job satisfaction (Egbebi, 2024).

Diversity and inclusion also play a crucial role in improving productivity within construction firms. Nigerian construction sites often involve multicultural teams, and HRM practices that promote inclusivity foster better teamwork and innovation. Studies suggest that diverse teams demonstrate higher adaptability and performance levels, which are crucial for navigating the complexities of modern construction projects (Osei-Kyei & Chan, 2017). Policy-making will help business show,

both internally and externally, that it meets the standard of diversity, ethics and training, as well as it is regulatory and corporate governance responsibilities (Mohammed et al., 2024).

Another important factor influencing HRM effectiveness in the construction industry is the role of workplace safety and mental well-being. The safety issue remains critical, with construction workers facing higher risks of workplace injuries compare to another sector (Egbebi, 2024). Research indicates that companies that prioritize safety training programs, enforce strict compliance with occupational health regulations, and integrate mental health support systems experience fewer workplace accidents, improved worker morale, and higher overall productivity (Babatunde et al., 2021). Additionally, studies highlight that employee well-being programs, such as stress management workshops, fair workload distribution, and wellness incentives, significantly reduce burnout and increase job satisfaction among construction workers. Therefore, for HRM strategies to be truly effective, they must go beyond recruitment and workforce planning to encompass safety culture, mental health initiatives, and a supportive work environment (Egbebi, 2024).

Moreover, the integration of technology into HRM in construction has revolutionized workforce management. Digital tools such as Building Information Modeling (BIM) and project management software have streamlined HR processes like scheduling, performance tracking, and team collaboration. Recent research emphasizes that technology-enabled HRM systems improve decision-making and reduce administrative inefficiencies, making them essential for managing large-scale construction projects (Babatunde et al., 2021).

1.2   STATEMENT OF THE RESEARCH PROBLEM

Effective human resources management (HRM) is crucial in the construction industry, where projects often involve complex tasks, tight schedules, and diverse teams. Workforce management remains a critical issue in the Nigerian construction sector, affecting project efficiency and overall productivity (Egbebi, 2024). The high turnover rate among construction workers is a major concern, particularly among Quantity Surveying practitioners, who frequently leave due to poor working conditions, lack of career advancement opportunities, and uncompetitive salaries (OseiKyei & Chan, 2017). This results in workflow disruptions, extended project timelines, and increased recruitment costs.

Additionally, insufficient workforce training and development contribute to significant skill gaps in the industry. A well-trained workforce is essential for minimizing accidents and ensuring effective project completion and many construction professionals lack the necessary technical and managerial expertise to meet industry demands efficiently (Egbebi, 2024). This leads to inefficiencies in project cost estimation, budgeting, and resource allocation.

Another key issue is the low adoption of technology-driven HRM practices. Many Nigerian construction firms still rely on outdated manual HR systems, limiting their ability to effectively monitor workforce performance and implement proactive management strategies (Babatunde et al., 2021).

Despite the proven relationship between HRM and productivity, there remains a lack of empirical research on how HRM specifically impacts Quantity Surveying practices in Nigeria. Addressing this knowledge gap is essential for developing effective workforce management strategies that enhance construction project outcomes (Adeleke et al., 2024).

For the above foregoing; the following research questions have been formulated.

1.3   RESEARCH QUESTION

These research questions were formulated to achieve the purpose of the study:

1. How do recruitment and selection practices influence the productivity of construction workers?

2. What is the role of development in enhancing workforce productivity among construction projects?

3. How does employee engagement contribute to productivity within the construction industry?

1.4 AIM AND OBJECTIVES OF THE STUDY

The study is designed to evaluate the influence of Human Resource Management (HRM) practices on productivity in the Nigerian construction sector. It focuses on key HRM strategies that contribute to workforce efficiency and project success.

1.4.1 AIM

The aim of this research is to evaluate the impact of Human Resource Management (HRM) practices on the productivity of workers in the Nigerian building construction sector.

1.4.2 OBJECTIVES

To achieve this aim, the following objectives have been set:

1. To investigate how recruitment and selection practices influence the productivity of construction workers.

2. To examine the role of development in enhancing workforce productivity in construction projects.

3. To explore the relationship between employee engagement and productivity in the construction industry.

1.5 SIGNIFICANCE OF THE STUDY

This study is important for multiple stakeholders, including construction professionals, industry regulators, policymakers, and academic researchers. It provides insights into how effective Human Resource Management (HRM) practices impact productivity in the construction industry, particularly in Quantity Surveying practice.

The findings of this research will be beneficial to construction firms by identifying HRM strategies that enhance workforce productivity, reduce project delays, and improve cost management. By understanding the role of HRM in recruitment, development, and employee engagement, companies can adopt better workforce management policies that enhance efficiency and project success.

For government agencies and policymakers, the study will offer valuable information on HRM's role in addressing workforce challenges in the construction sector. The results can guide the formulation of labor policies, skill development programs, and industry regulations aimed at improving employee performance and project delivery.

This research will also be useful to academics and students, as it expands existing knowledge on HRM and its relationship with productivity in the construction industry.

1.6   SCOPE AND LIMITATIONS OF THE STUDY

This study focuses on evaluating the impact of Human Resource Management (HRM) practices on the productivity of Quantity Surveying practice in Nigeria. The research will be conducted across selected construction firms, specifically those that employed Quantity Surveyors and other construction professionals.

Due to financial and time constraint, the study will however be limited to construction firms in Ibadan, Oyo State, Nigeria. The study relies on data from industry professionals, which may introduce subjectivity in responses. The accuracy of findings will depend on the availability and reliability of information provided by constriction firms regarding the HRM practices and workforce productivity.

1.7   DEFINITION OF TERMS

- **HUMAN RESOURCE MANAGEMENT (HRM)**: A strategic approach to managing an organization's workforce to improve performance and align it with organizational goals. In construction, HRM includes recruitment, training, performance management, and employee relations practices.
- **PRODUCTIVITY**: The efficiency with which construction resources, particularly human resources, are used to achieve project goals, such as timely completion, cost control, and quality standards.
- **CONSTRUCTION INDUSTRY**: The sector responsible for the development and maintenance of infrastructure, including residential, commercial, and industrial buildings.

It is a major contributor to economic growth but faces significant challenges in workforce management.

- **PERFORMANCE MANAGEMENT**: The process of ensuring employees perform at their best through clear goal-setting, feedback, and performance evaluations. In construction, this affects efficiency and quality.

- **WORKFORCE MANAGEMENT**: The strategic planning and optimization of an organization's labor force, ensuring the right skills are available for construction projects at the right time.

- **EMPLOYEE ENGAGEMENT**: The level of emotional commitment employees has towards their work, influencing productivity, job satisfaction, and turnover rates

CHAPTER 2

LITERATURE REVIEW

2.0   INTRODUCTION

This chapter reviews key theories and practices in Human Resource Management (HRM) within the construction industry. It begins with theoretical foundations such as Herzberg's, McGregor's, and Systems Theory. It then examines the effects and impacts of recruitment and selection on performance. The chapter explores how employer engagement influences productivity across various construction types; residential, institutional, and industrial. It discusses the evolving role of HRM in the 21st century, its challenges, and best practices, especially in Nigeria's construction sector. It also highlights productivity improvement strategies, supported by case studies, and the growing role of leadership and motivation. Finally, it addresses the rise of Artificial Intelligence in HRM, including its benefits and limitations in modern recruitment.

2.1   THEORETICAL REVIEW

In the context of Human Resource Management (HRM) within the construction industry, several theoretical frameworks provide insights into effective workforce management strategies. Herzberg's Two-Factor Theory is particularly relevant, emphasizing that factors such as recognition, job satisfaction, and opportunities for advancement are crucial motivators for construction workers (Herzberg, 1968). This theory suggests that satisfying hygiene factors (e.g., working conditions, pay) is necessary but not sufficient for motivating employees; meaningful work and opportunities for personal growth are equally important.

Another pertinent theory is McGregor's Theory X and Theory Y, which contrasts two approaches to managing construction project teams. Theory X assumes that employees inherently dislike work and need to be closely monitored and directed, while Theory Y posits that employees can be selfmotivated and seek responsibility if conditions are favorable (McGregor, 1960). Understanding

these theories helps in designing HRM strategies that align with the motivational dynamics of construction workers.

2.1.1 HERZBERG'S TWO-FACTOR THEORY (MOTIVATION AND HYGIENE FACTORS

Herzberg's Two-Factor Theory, developed by Frederick Herzberg (1959), identifies two distinct categories of factors that influence job satisfaction and dissatisfaction in the workplace: motivators and hygiene factors. According to Herzberg, motivators are intrinsic to the job and lead to higher satisfaction and increased motivation, whereas hygiene factors are extrinsic and, while necessary to prevent dissatisfaction, do not directly increase motivation.

Motivators, such as achievement, recognition, responsibility, and opportunities for growth, are critical in boosting employee motivation and satisfaction. For the construction industry, motivators might include the opportunity for employees to work on large-scale projects, recognition of their work and contribution, and clear career advancement paths. This aspect of the theory suggests that HRM practices that provide recognition, foster a sense of responsibility, and create opportunities for professional development are highly beneficial in improving productivity.

Hygiene factors, on the other hand, include salary, job security, working conditions, and company policies. Although hygiene factors do not actively motivate employees, they are critical to ensuring that workers are not dissatisfied. Poor working conditions, unfair compensation, and job insecurity can lead to dissatisfaction, demotivation, and a reduction in productivity. Therefore, HRM practices must balance both hygiene and motivational factors to ensure workers are satisfied and motivated to perform at their best.

In the Nigerian construction sector, where the workforce often faces harsh working conditions, limited job security, and low wages, addressing hygiene factors is particularly important. Construction firms need to focus on improving safety standards, ensuring competitive compensation, and providing job stability to avoid dissatisfaction and retain skilled workers. However, motivational factors are just as important, as they have the potential to propel employees to higher levels of performance. For instance, rewarding workers for exceptional performance,

offering leadership roles, and fostering a culture of recognition can inspire employees to take ownership of their work, which directly influences productivity.

HRM strategies that integrate both motivators and hygiene factors can help in creating a positive work environment that drives productivity. In construction, where workers often face risks, long hours, and difficult working conditions, maintaining a balance between motivating employees and providing adequate working conditions is essential for optimal productivity.

2.1.2   HUMAN CAPITAL THEORY

Human Capital Theory, conceptualized by Gary Becker (1964), posits that individuals' skills, knowledge, and competencies are a form of capital that contributes to economic productivity. In this theory, the investment in individuals' education, training, and health results in a more productive workforce. By focusing on the value of individuals as capital, Human Capital Theory places significant importance on human resources as a strategic asset. In the construction industry, the need for skilled labor is paramount. Becker's research suggests that workers' productivity increases when firms invest in their skills and capabilities. Skilled workers with specialized knowledge in areas such as project management, building technologies, and safety regulations are integral to delivering high-quality results.

The application of Human Capital Theory to the construction sector is particularly important because the industry relies heavily on skilled labor and technical expertise. Training workers in new construction techniques, technologies, and safety standards can significantly enhance the quality of work and increase productivity. In Nigeria, for instance, construction firms often face challenges in finding workers with specialized skills. However, the emphasis on human capital development is crucial. A focus on training and development programs, apprenticeships, and continuous learning can bridge the skills gap. Investments in human capital have shown to improve not only workers' technical abilities but also their commitment, motivation, and overall job satisfaction, leading to enhanced productivity.

Moreover, Human Capital Theory emphasizes that firms can achieve a competitive advantage by improving the skills and capabilities of their workforce. By continuously upskilling employees, construction firms can increase their adaptability to new challenges, reduce downtime, and enhance

overall project delivery. When HRM strategies are aligned with the development of human capital, employees are more likely to be motivated, empowered, and productive, leading to the success of construction projects.

2.1.3 SYSTEMS THEORY IN ORGANIZATIONAL PRODUCTIVITY

Systems Theory, developed by Ludwig von Bertalanffy (1968), is a theoretical approach that views organizations as a system of interrelated parts working together toward a common goal. This perspective is critical when analyzing the relationship between HRM practices and productivity, as it underscores the importance of collaboration and integration of various components within the organization. In a construction firm, these components include human resources, processes, technology, organizational structure, and external factors such as regulatory requirements and client expectations.

According to Systems Theory, HRM practices must align with organizational objectives and integrate seamlessly with other systems within the firm to enhance overall productivity. A systems approach implies that HRM cannot function in isolation but must interact with other organizational subsystems, such as project management, procurement, and quality control. This means that a wellcoordinated HRM system that includes recruitment, training, performance management, and employee development is essential for improving productivity in construction. Effective communication and collaboration across departments and teams are vital to ensuring that the workforce works toward common goals, leading to greater efficiency and better project outcomes.

In the context of the Nigerian construction industry, where challenges such as resource constraints, unstable economic conditions, and poor project management practices are common, adopting a systems thinking approach to HRM is especially important. By ensuring that HRM practices are integrated into the broader organizational framework, construction firms can address the interdependencies between workers, management, technology, and external factors. For example, a construction firm that invests in employee training not only enhances the capabilities of its workforce but also boosts the organization's capacity to adopt new technologies and improve project performance. Furthermore, an aligned HRM strategy can help organizations adapt to changes in the industry, including shifts in regulations or market demand, ensuring that the firm remains competitive and productive in a challenging environment. Systems Theory also

emphasizes the importance of feedback loops within organizations. In the construction sector, this feedback loop can be established through regular assessments of worker performance, satisfaction surveys, and monitoring of organizational outcomes. This continuous feedback mechanism enables organizations to make data-driven adjustments to their HRM practices, ensuring that productivity levels are consistently optimized. By utilizing a systems-based approach, construction firms can foster a more interconnected and efficient organizational environment that drives long term success.

2.1.4 COMPARATIVE OVERVIEW ON KEY HUMAN RESOURCE MANAGEMENT THEORIES

Understanding the distinctions among foundational HRM theories is crucial for their effective application in the construction industry. The following table presents a comparative analysis of Herzberg's Two-Factor Theory, Human Capital Theory, and Systems Theory, highlighting their core principles, focus areas, and practical implications within construction project management.

Aspect	Herzberg's Two-Factor Theory	Human Capital Theory	Systems Theory
Core Focus	Differentiates between motivators (e.g., recognition) and hygiene factors (e.g., pay) that influence job satisfaction.	Views employees' knowledge and skills as economic assets that improve productivity through investment.	Sees the organization as an interdependent system where each part affects the whole.
Key Components	Motivators: recognition, responsibility; Hygiene: salary, working conditions.	Education, training, experience, health.	Subsystems (HR, operations), feedback loops, external environment.

Assumptions	Satisfaction and dissatisfaction stem from different sets of factors.	Investing in people increases productivity and economic returns.	All subsystems must work harmoniously for effective operation.
Application in Construction	Enhance motivators and address hygiene factors to boost morale and productivity.	Invest in worker training and skills development.	Integrate HR with other departments for cohesive project management.
Strengths	Clear distinction between motivators and hygiene; practical for motivation.	Links employee development with organizational success.	Encourages holistic and system-wide thinking.
Limitations	May not generalize across all roles; ignores external factors.	Assumes investment always leads to productivity.	Complex implementation and system analysis required.

Table 2.1: Comparative Overview on Key Human Resource Management Theories

2.2. IMPORTANT OF HUMAN RESOURCE MANAGEMENT IN 21ST CENTURY

Naeem Ali (2021) elaborated that HRM in 21st century is a process that utilizes the skills and knowledge of employees in order to achieve organizational goals. Similarly, Tzafrir et al. (2014) explained that it is the responsibility of HR department to be more focused towards employees' benefits and concerns because they play an important role in the success of any organization.

Beardwell, Halden and Claydon (2014) stated that HRM is defined as rules, regulations and procedures related to the management of employees within the organization. In 70s the HRM division was called "Personnel", as time move on and it came the time between 1945-1979 it

changed into "Personnel Management" which influenced upon employee's legislation and administration. The concept of Human Resource Management further started to develop in 1990.

And finally, the 'personnel management' shifted to 'Human Resource Management'. Human resource management is being taken as an important function amongst all since last two decades. Different academicians and researchers finally admit that HRM is necessary function to gain competitive advantage for an organization. Naheem Ali (2021) stated that in 21st century HRM includes number of activities such as conducting job analysis, having concern with personnel needs and wants, recruitment and selection of efficient people for a particular job, providing training programs to employees in order to improve employees' current performance, providing incentives and benefits to employees, solving disputes between employees and management, determining wages and salaries, etc.

2.2.1 FACTORS INFLUENCING HUMAN RESOURCE MANAGEMENT FUTURE

In today's environment the organizations can achieve competitive advantages by hiring valuable workforce. Organizations can compete in better manner if those try to enhance HR by adding real, measurable or value able human capital that augments firms' capacity of production. Beatty and Schneier (2017) state that the human resource function and its process play strategic role so as far success of an organization is concerned.

i.   Ruona and Gibson (2014) elaborate that the first factor is the increased centrality of people to organizational success. Increased centrality of people in organizations plays powerful role for the evaluation of HRM for organizational success. Therefore, the emergence of resources places acute importance on intellectual and social capital.

ii.   The second factor is the focus on whole system and integrated solutions for the proactive role of HRM. The Human resource management challenge is to continue developing innovative systems by focusing on the integrated functions and systems of organizations.

iii.   The third factor is the strategic alignment and the impact of 21st century Human Resource which is integrated by efforts and expectations suggesting that importance of these factors will increase in the coming years too.

iv.   The last factor is the capacity for change. Organizations are now working in complex and

changeable environment so these organizations seek to work for a development process and plan strategy to facilitate self-motivated changing environment through incremental changes. By utilizing Human resources, professionals need encouragement by organizations. They should be taking more and more initiatives by provision of tools and techniques to achieve critical competencies through continuous learning. Schoonover

(2019) explained it in a way that "HR professionals need to lead flatter organizations by encouraging individuals to exercise more initiatives, autonomy and accountability through provision of concerned tools and techniques that improve their effectiveness while having acquisition of critical competencies through continuous learning opportunities".

2.2.2   EMERGING ISSUES AMONG 21ST CENTURY HUMAN RESOURCE MANAGER

As organizations compete globally for products, they have to compete for HR talent in 21st century. The future talent means highly educated youth seeking huge benefits and monetary rewards for meeting their materialist desires. That generation would search the companies in which they could work with loyalty and commitments as long as the organization keeps them satisfied or try to satisfy the employees according to the term agreed.

Taylor (2021) elaborates that "this century is an arrival of new breed of highly skilled workers who are younger, well educated, knowledgeable and extremely confident and not just interested in what they can do for the company, but rather what the company can do for them". Therefore, even though some countries have less tolerance for the foreign managers, best skilled people are hired worldwide regard less of nationality. Function of 21st century HR manager is to decide about the staffing. These staffing strategies are domestic as well as global that contain the internal staffing strategies and external ones. In external staffing the pool of candidate is generated and the successful candidates who fulfill the organizations' needs are promoted and transferred while

internal staffing strategy is made for the recruitment of new position from workforce pool available within the organization.

Henson (2017) states that the generation wants flexibility in their working hours for spending their time in other activities like spending more time with their children. Baby boomers want freedom to work part time however some want early retirement etc. Therefore, HR managers have to plan and design some standard framework for the workforce that allow them to exercise flexibility for managing their choices. HR manager will have to plan for outsourced supplier for having fulltime or part time workers keeping in view current global business environment.

2.3 EFFECTS OF RECRUITMENT AND SELECTION ON CONSTRUCTION PROJECT PERFORMANCE

Human resource management is the most critical asset of any construction firm, without employee, all other functions cannot perform. For any project to be successful, it must recruit capable, skills and knowledge on the subject matter. This situation accords credence to the growing attention being paid to the human aspect of construction wealth. The performances of those who work in a industry undoubtedly contribute significantly to achieving its ultimate goal. So, it becomes imperative for every serious organization to develop and configure a unique framework to managing its human element for increased performance and improved quality of work-life beginning with initiating a goal-oriented process that aid the sourcing of adequate members to efficiently fill job vacancies which is referred to as recruitment and selection process.

The recruitment and selection process helps create a pool of job applicants and sort adequate people to work for positive organizational outcomes. Organization systematic recruitment entails designing and implementing a hiring policy statement that clearly outlines procedures for job vacancies identification, job analysis, job description, person specification, and advertisement (Gamage, 2015). It is a critical process for implementing construction performance, it aids the attraction, development, and maintenance of a talented and energetic workforce to support construction objectives (Ameh & Daniel, 2017). Recruitment and selection serve as gateways to the employment of employees. When human resource practice at this stage is defective, then all succeeding human resource practices or functions from induction, placement, training to appraisal

and compensation will fail to deliver the expected performance levels that organizations demand unless there is possibility of trainability.

An improperly planned and executed recruiting process may give employer's an unfavorable impression of the construction firm, which might have a substantial impact on their future working relationships. Poor procedures can send the incorrect message to successful applicants, who may arrive at work with a poor opinion of the company (Chartered Institute of Personnel Development [CIPD], 2014). Therefore, the expectation is that the recruitment and selection process should be consistent with peculiar characteristics of the country, industry, and most importantly, the overall construction firm strategy, vision, and values that will attract competent personnel for optimum performance.

2.3.1 THE IMPACT OF RECRUITMENT AND SELECTION PRACTISE ON PERFORMANCE IN THE CONSTRUCTION INDUSTRY

Performance is an increasingly important issue for all construction firm in developed and developing economies in both public and private sectors. Organizations are however not exempted from the necessity of performance as they are continually threatened by increase competition resulting from the increasing liberalization of the global economy. Individual performance is topical issue in today's business environment, to the extent that organizations go to the length to appraise and manage it

Qureshi and Ramay (2016), argue that HR practices are positively correlated with the profitability and suggest that management of organization must focus on these HR practices (recruitment and selection) resulting in improved organizational profit. In order to get maximum output from employees, it is important to consider a fit between successful candidates and the organization. This is made possible by the use of selection criteria as basis on the questions asked by the selection panel and in interview. By selecting the required candidates for positions in respective departments, line managers could help achieve a better fit between job and candidate

When employees are developed it help increase their performance and sustain the growth of the industry. Poor recruitment practices and recruiting poor performing employees can have several negative effects on the organization some of which are stated below:

i.   Employees with limited role specific capabilities take time to become productive and need more training to build their skills, good employees hit the ground running and are interested in learning

ii.   Underperforming staff also affect the performance of many by a multiplier effect. People who are not a good fit to the role require more time and attention from their manager. The time that managers spend on developing their best people is reduced

iii.   Higher human resources cost may arise as a result of time spent in recruiting poor performing employees;

iv.   Client satisfaction is impacted through an increase in errors, poor decision making and less effective client services.

2.3.2   RELATIONSHIP BETWEEN EMPLOYER ENGAGEMENT AND PRODUCTIVITY IN THE CONSTRUCTION INDUSTRY

It is quite common knowledge that Construction is a major form of business which involves the construction of various categories of buildings or projects and in a well-developed country. In some industries, there are various topographical and climatic challenges that are often faced by the construction industry however it still in no way has dented the competitive approach of their demand. Which depicts the quality of their services and that is exactly what this review will cover.

In implementation of various strategies in the construction industry can help with the production of different benefits in the industry as well such as continuous improvement and the improved performance of construction projects (Jong *et al*., 2019). The construction companies across the organization of an industry are executed based on various organizational help or are commissioned publicly, municipal agencies or sometimes are even conducted privately. These construction projects are of wide importance to the country due to their competitive facilities be it anything ranging to simply just pipelines. This makes it important for organization sector to stay updated on the increasing demand of the construction projects and get them commissioned for themselves to work on and that is the prime way to make their way through the top position in the market and can help them in establishing a better market presence which will be a great asset for

the company for a long period of time. Due to the intensity of competition in the market some companies always try to stay at the top of their game and thus deliver the best of their services in order to maintain their reputation in the market and since most construction projects are time intrusive projects the expectations of the customers will be on a constant rise which can often prove to be difficult to meet. However, if the company manages to do so their reputation can skyrocket in the construction sector thus paving the way for them to achieve a better market presence. In the construction industry there are various categories depending on the nature of the projects. Which are:

2.3.2.1 RESIDENTIAL

It is most important for the construction companies to stay aware of all the needs that are required in residential projects and therefore requires a certain degree of consideration of the needs and interests of the common people. It can also often vary based on the preference of the proprietors. Common residential projects are not to be confused with building just normal small 'houses' and thus are not as easy as often comprehended by the newcomers in the sector. Deliverance of a quality residential project can result in the rapid popularization of the construction companies as it is the most common and widely implemented projects in the construction sector (Croese, 2018).

2.3.2.2 INSTITUTION AND COMMERCIAL

This category of construction sector marks the projects of a larger to a medium scale and thus are often more time taking than common residential projects. These are also a rapidly growing category under the sector and services provided here by a construction company can effectively become their recognition in the whole industry. The institutional and commercial buildings can be of various types which differ based on the objectives of the proprietors and can be of various scales ranging from common retail stores to larger institutions like schools or even as large as a skyscraper. Fundamentally these types of projects also need the company to deal with the maintenance of the whole structure even after the completion of their projects.

2.3.2.3   SPECIALZED INDUSTRY

The industrial projects are normally the manufacturing unit for any firm and thus can be quite numerous in number (Ohno and Bodek 2019). They are also required to be extremely specialized to deal with various forms of specialized requests. These buildings can range from contemporary industrial units to something as complicated as nuclear power generators which can be extremely hazardous to deal without having sustained knowledge and these projects are normally considered to be highly sophisticated pieces of construction and thus often need heavy maintenance which is another reason for it being a largely popular category under the construction sector. However, these infrastructures are a lot more susceptible to breakdowns which can be extremely dangerous and, in most cases, cost intrusive for any of the companies to perform maintenance on.

2.4   CONSTRUCTION INDUSTRY AND IT'S ECONOMY

The building and construction industry is one of the most important sectors of any given economy. The significance of this industry is often measured by considering its impact on the economy through quantities such as its contribution to the Gross Domestic Product (GDP) and the amount of employment it creates. This section attempts to situate the Nigerian construction industry within the national economy and highlights its contributions to the overall economy of the country.

The construction industry is considered by some economists as a leading driver of economic development in a country. This is basically due to the fact that almost all other sectors of the economy in one way or another depend solely on the products and services of the construction industry in order to carry out their operations. For example, it would be impossible for the manufacturing industry to thrive without appropriate buildings and infrastructure such as manufacturing plants, roads linking raw materials and manufacturing plants, office buildings, etc., all products of the construction industry.

The Nigerian construction industry, like in most other developing nations, is divided into two major groups: the organized, "formal," and the unorganized, "informal" sectors of the industry. The unorganized sector, for which no accurate and reliable data is available on, comprises of the simple residential buildings and similar structures built by private citizens and constructed through the efforts of gangs of artisans and labor, hired mainly using the multiple primes method of

construction, i.e., owner supervised construction. The government has almost insignificant influence on the operations of this sector and receives little or no revenue thorough taxes; hence, it is very difficult to obtain reliable statistical data about this sector.

On the other hand, the organized sector of the construction industry, for which all the data available is derived from, constitute all the major companies, which are legally registered in the country and carry out organized construction projects with a combination of both highly skilled expatriates and laborers. This sector operates under set rules and regulations, including adherence to national laws on employment, procurement, and tendering. Also, the government is aware of all the activities of this sector and collects frequent taxes from the companies.

2.4.1 HUMAN RESOURCE MANAGEMENT CHALLENGES IN CONSTRUCTION INDUSTRY

The construction industry faces unique HRM challenges that impact workforce management and development. High turnover rates are a significant concern, often attributed to the seasonal nature of construction work and the transient nature of project-based employment (Chan et al., 2017). Moreover, safety issues remain critical, with construction workers facing higher risks of workplace injuries compared to other sectors (Teo et al., 2019). Addressing these challenges requires HRM strategies that prioritize employee retention and occupational health and safety.

Summary of the key challenges in construction HRM and their implications:

CHALLENGES	IMPLICATIONS
High Turnover Rates	Increased recruitment and training costs, reduced project continuity
Safety Concerns	Higher injury rates, potential legal liabilities

Seasonal Employment	Difficulty in workforce planning and retention

Table 2.2: Key Challenges in Construction HRM

2.4.2 HUMAN RESOURCE MANAGEMENT BEST PRACTICES IN CONSTRUCTION INDUSTRY

Effective HRM practices in construction can mitigate these challenges and enhance workforce performance. Training and development programs play a crucial role in equipping construction workers with the skills necessary to perform tasks safely and efficiently (Rowlinson et al., 20).

For instance, ongoing safety training not only reduces accidents but also fosters a culture of safety within construction project teams.

Leadership styles also significantly impact HRM outcomes in construction. Transformational leadership, characterized by inspirational motivation and individualized consideration, has been shown to improve employee engagement and job satisfaction among construction workers (Jiang et al., 2018). This table outlines the best practices in construction HRM and their benefits:

HRM PRACTICE	BENEFITS
Training and development	Enhanced skills, improved safety practices
Transformational leadership	Increased job satisfaction, higher productivity
Performance incentives	Motivated workforce, improved project outcomes

Table 2.3: Best Practices in Construction HRM

2.5   CONSTRUCTION PRODUCTIVITY

The effect of construction productivity on a nation's economy is highly significant. The Royal Commission into Productivity in the building industry, concluded that 'through improving its productivity, the construction industry can have an important role in promoting national competitiveness, and therefore in defending living standards and achieving a satisfactory rate of growth. This argument is also supported by Stoekel and Quirke (2014). Their analysis indicated that a 10% improvement in the construction industry productivity will lead to a 25% increase in Gross Domestic Product (GDP).

The meaning of the term 'productivity' varies with its application to different areas of the construction industry, and a single industry measurement is insufficient. According to Drewin (2016), definition range from industry-wide economic parameters to the measurement of crews and individuals. Each of these measures has its own unique purpose. The term 'productivity' is referred to as individual productivity, and is defined as the amount of goods and services produced by productive factors in a unit of time (Drewin, 2016). Productivity is usually expressed in terms of unit rate such as productivity = output/cost or work hours. Productivity, however, should be distinguished from project performance, although they are inter-related.

In the construction industry, productivity factors are among the most essential data needed, and their relationship with the production process has been modeled in an attempt to analyze the cause and-effect analogue. Drewin (2016), for example, designed two models which were called open and closed conversion systems. The models show the complication involved in determining the results of various inter-related productive factors. When designing the model, Drewin stated 'it is important to specify the inputs and output which need to be measured when comparing production.' Past experience in the construction industry has shown that great variations in productions values for the same construction item are attributed to the effect of product conditions which are commonly called influence factors. Egbebi (2024) divided the productivity influencing factors into two main groups, namely technological and administrative. The technological influence factor includes specification, design, location, and material, whereas the serenely organizational influence

factor includes production, labor and social issues. Herbsman and Ellis (2020) concluded that knowledge of the reasons for productivity influencing factors to behave the way they do will have a positions effect on many related subjects such as estimating, scheduling labor, and resources management.

2.5.1 FACTORS AFFECTING CONSTRUCTION PRODUCTIVITY

The definition of productivity ranges from industry-wide economic parameters to the measurement of crew and individuals. For the purpose of the study, the term 'productivity' is referred to as individual productivity, and is defined as the amount of goods and services produced by productive factors in a spell of time. It is usually expressed in terms of unit rate such as productivity output/cost or work-hours. In the construction industry, the relationship between productivity factors and production process has been modeled by Naoum (2020) in an attempt to analyze the causes and effect analogy.

Concern has been expressed for many years about impairing productivity on site. The view is generally held that factors at head-office level and site management level are the main constraints to poor productivity. These factors are;

i.   Management factors

ii.   Employee motivation

iii.   Experience and training

The level of productivity attained by a firm is determined by a variety of organizational, technical, and human factors, many of them directly controlled or influenced by management decisions.

Lanfer and Jenkins (2014) examined various approaches to motivate construction workers, and found that construction management would benefit from a general move towards a more participating decision- making style of leadership. Egbebi (2014) identified site management involvement in planning as a very important factor because of their input on early stages in developing understanding of, and preparedness for, their job. It has been suggested that site manager should have a major say in setting the original targets, planning the process and organizing the resources. Olomolaiya, (2020) found that good supervision is the most significant variable

influencing percentage of production, and that fluctuations in productivity are primarily the responsibility of on-site managers. Rieshmidt (2016) argued that the productivity of firms depends on the management's access to accurate information to aid in faster decision-making. Several empirical studies emphasized the importance of utilizing effective resource practice in order to improve productivity. Stirkland (2017) suggested that the ability to achieve good project performance hinges, primarily, on the attainment of forecasted productivity and manpower level.

The empirical study by Nicholls and Langford, test the hypothesis that Herzberg's two factors theory of hygiene and motivation is an accurate way of determining the motivation of construction site engineers. Hygiene factors: money, supervision, status security, working conditions, policies, and interpersonal relations prevent dissatisfaction but do not motivate, and they do not produce output but prevent decay in performance, while motivation factor, work itself, recognition, advancement, possibility of responsibility and achievement can have a positive effect on job satisfaction which will lead to an increased output. The study shows that there has been an overall agreement with Herzberg in that site managers consider the most important factor to be the work 'itself'. However, some hygiene factors can motivate construction employees, in particular, site manager who value responsibility and autonomy as a powerful motivator (Nicholas and Langford, 2017).

2.5.2   PRODUCTIVITY IMPROVEMENT IN THE CONSTRUCTION INDUSTRY

Improving productivity is a major concern of any profit-oriented organization. Productivity represents the effective and efficient conversion of resources into marketable products and determining business profitability. Productivity is the relationship between physical output and one or more of the associated physical inputs used in the production process, broadly conceived, as a system concept which can apply to various entities ranging from an individual or a machine or a company, industry, or a national economy. Physical process productivity, typically expressed as a ratio, reflects how efficiently resources are used to create output.

The term 'Productivity' has various connotations. In one context it may mean the substantive analysis of technology and operating system of a factory. In another it might mean the subtle motivational aspects of the management of white-collar workforce efforts. In yet another context, the emphasis might be on long-range improvement in financial results through inventory control.

Eza (2014) defined productivity as a measure of how well resources are brought to organizations and utilized for accomplishing a set of results.

Olomolaiya (2014) used a widely known efficiency equation to measure productivity:

$$\text{Efficiency} = \frac{Output}{Input} \quad \text{....................} (1)$$

Contributing, Nwachukwu (2018) defined productivity as a combination of effectiveness and efficiency. That is:

$$\text{Efficiency} = \frac{\text{Performance Achieved (\textit{Effectiveness})}}{\text{Resource Consumed (\textit{Efficiency})}} \quad \text{..............}(2)$$

As shown, productivity is the ratio of an organization's output (good and services) to its input (people, capital, materials, and energy), *William et al., (2016)*. Human resource departments contribute to improved productivity and directly by finding better and more efficient ways to meet their objectives and indirectly by improving the quality of work life for employees. *(Harold et al., 2015)*

2.6   CASE STUDIES IN HUMAN RESOURCE MANAGEMENT IN CONSTRUCTION

Effective human resource management (HRM) is critical in the construction industry, where projects often involve complex tasks, tight schedules, and diverse teams. This section explores several case studies that illustrate successful strategies for workforce management and development in construction project teams. These examples highlight the application of best practices and innovative approaches that have led to improved performance, safety, and job satisfaction.

2.6.1   CASE STUDY 1: ENHANCING SAFETY AND PRODUCTIVITY THROUGH

TRAINING PROGRAMS

In a study conducted by Zou and Sunindijo (2014), a leading construction firm in Australia implemented an extensive training program focused on safety and productivity. The company recognized that a well-trained workforce is essential for minimizing accidents and ensuring efficient project completion. The training program included regular safety workshops, on-site training sessions, and the use of virtual reality (VR) simulations to prepare workers for potential hazards. As a result, the firm reported a 25% reduction in workplace accidents and a 15% increase in overall productivity. The use of VR technology, in particular, allowed workers to experience real-life scenarios in a controlled environment, thereby enhancing their readiness for actual construction site conditions (Zou & Sunindijo, 2014).

2.6.2   CASE STUDY 2: IMPLEMENTING TEAM BUILDING AND LEADERSHIP DEVELOPMENT

A study by Tabassi, Ramli, and Bakar (2021) examined a Malaysian construction company that focused on team building and leadership development to improve project outcomes. The company organized regular team-building activities, such as workshops and outdoor retreats, to foster better communication and collaboration among team members. Additionally, they invested in leadership development programs to identify and nurture potential leaders within their workforce. These initiatives led to a more cohesive team environment, where workers felt valued and motivated. The study found that projects managed by these teams experienced fewer delays and higher quality outputs. This case illustrates the importance of fostering strong interpersonal relationships and leadership skills in achieving project success (Tabassi, Ramli, & Bakar, 2021).

2.6.3   CASE STUDY 3: UTILIZING TECHNOLOGY FOR WORKFORCE MANAGEMENT

A notable case from the United States involves a large construction firm that adopted advanced project management software to enhance workforce management. As reported by Ahn and Lee (2015), the software integrated various aspects of HRM, including scheduling, resource allocation, and performance tracking. This technological integration allowed project managers to have real time insights into workforce availability and productivity levels, enabling them to make informed decisions quickly. The firm reported a significant improvement in project timelines and a reduction in labor costs by 10%. The ability to monitor performance metrics closely also helped in identifying underperforming areas and addressing them promptly, ensuring that the workforce remained efficient and focused (Ahn & Lee, 2015).

2.7 EFFECTIVENESS, EFFICIENCY, AND COMPETENCE AS IMPORTANT FACTORS TO PERFORMANCE OF WORKERS

The construction industry has long been trying to incorporate improvements similar to those prevailing in the manufacturing sector. Those efforts were directed by several factors that appeared significant when first considered but lost relevance over years. Many industries adopted the specialization principles directed by Taylor (2017), and these methods paid dividends for many years. However, they eventually led to "silos" of specialization, lack of communication among groups working with different production processes, and therefore, inefficient production process. The types of performance measures imposed by Taylor's principles redirected the focus from the client, external or internal, to the internal hierarchical organization. The consequences were loss of client satisfaction, loss of market share, and loss of profits.

Technological advancement in the mid-1980s, led to increasing automation in both administrative functions and construction. The intent of automation was to improve the efficiency of existing processes, but not necessarily their effectiveness. Services and products were generated faster, but the quality of products and services, and associated customer satisfaction elements were not specially addressed. As a result, the industry shifted emphasis from automation to management initiatives that focused on quality improvement driven by customer satisfaction. It is useful to

integrated good business practices and good technical practices through good project management to achieve better service delivery.

A project is a planned set of activities that meet specific goals and produce specific outputs. Every project moves through a life cycle, i.e., a series of phases from conception to retirement. The main objectives of any project are improvements in time, cost, and quality control.

Traditionally these three objectives have been considered as competing. Better quality implies more time to complete a project and higher costs directly related to longer times of production period, for example, of better material. Reducing the time required to complete a project implies higher costs because of the mobilization of more resources or lower quality if resources remain the same. Good practices and good management can eliminate the conflict between these three objectives and enable them all to be met simultaneously.

2.7.1   CONSTRUCTION EFFICIENCY ON PERFORMANCE OF WORKERS

The human element as represented by the construction workforce is the main catalyst determinant variable of construction efficiency and productivity. The efficient workplace that allows the convert resources into a built product is largely dependent on the sign of technology, the sociological environment of the contracting organization and the setting of the construction site. The ability of the manager to make the work environment conducive to optimum productivity will determine the success of projects in meeting time, cost, and quality targets. That is the main task of getting the best from the workforce.

Construction work environment is a product of organizational response to providing the needed adequate production resources and workers' assessment to this response as reflected to their motivation and productivity. Personality reflects worker qualities, knowledge, attitudes and characteristics; for example, training, experience, age, perception and so on. Clearly, personality changes with time, (as such parameters are being static), implies management's need constant monitor and alertness for changes impacting productivity. This information can be used the by manager in setting up program for increased output from workers.

In addition, workers' identity or personality management should be aware of workers' managerial perception in order to effectively direct the workforce to higher productivity while at

the same time maintain a trouble-free work environment that would satisfy the workforce with good team spirit. This perception will depend on management's contribution to the work environment in terms of work organization, supervision, efforts to progress on site, participation by management and operatives' awareness of management's efforts.

2.8   LEADERSHIP AND HUMAN RESOURCE MANAGEMENT IN PROJECTS CIRCUMSTANCES

To lead can be defined as a process of motivating and directing the members of the organization to work together doing their tasks in order to achieve the desired goal of the organization. Leadership is very important for any organizations including a project organization. In order to manage a project effectively managerial ability of the leader is very important. After planning phase of a project, the role of management is then to organize the project resources to achieve its objective.

One of those resources is human resource, therefore the role the project manager is to manage human resources to work together as a team in achieving the certain goal of the project. The individual as a member of the organization has his/her own objective, hence the leadership in this context is focused on how to balance the individual needs and the organization goal.

A project has a unique characteristic that is, it has a limited life span and high level of uncertainty, the question will be asked then is how to apply an appropriate leadership style in project circumstances? The aim of this paper is to discuss the appropriate way in managing human resources in the project circumstances, which is related to the leadership. Firstly, it will discuss how to direct and influence the human resources which are related to motivation, authority and style of the leadership. It then shows the related theories such as X and Y theory from McGregor (1960), hierarchy of needs theory from Maslow (1943). Finally, it demonstrates how to apply those theories in project circumstances.

2.8.1   DIRECTING AND MOTIVATING PROCESS

After determining and formulating the goal of the project, directing and motivating process will begin to take action in order to achieve the goal. Therefore, the leader should be able to understand about attitude, desired and behavior of individual as well as a group. Since the people who work

in a project are heterogeneous it is imperative that the human resources are managed properly to avoid problem that can influence the project implementation.

Even if we have good equipment, we can't achieve a successful project management without proper human resource management. Adding more budgets, equipment, and so on can solve technical problems. However, human resource problems are quite difficult to solve in the life span of the project, which is relatively short. In order to harmonize the project circumstances, project manager should be able to direct and motivate all of the members. This process has a close relationship with motivation, authority, leadership style, training, supervising, and consultation which are explained below.

i.   Motivating is to encourage people to do their tasks by fulfilling their needs or the others incentives.

ii.   Authority is the right to give orders and to be obeyed. Leadership style is the way of the leader to influence and direct people in order to achieve the goal.

iii.   Training is an effort to improve abilities and skills of people to do their tasks.

iv.   Supervising is the process of giving guidance for people to do their tasks properly.

2.8.2   MOTIVATION ON HUMAN RESOURCE BEHAVIOUR

In order to understand leadership, one has to pay attention to its close relationship with motivating the human resource. This section discusses the theories of motivating the human resource. According to this theory, managing activity should be started from the question of how the manager understands the characteristic of human resource in the relationship with the tasks.

Both of those theories have different assumptions between each other, theory X assumes that lower order needs dominate individuals. The employees are controlled and threatened to achieve the desired goals. In contrast, theory Y assumes that higher-order needs dominate individuals.

Theory Y focuses on self-control in order to balance between individual needs

2.9 THE IMPACT OF ARTIFICIAL INTELLIGENCE IN HUMAN RESOURCE MANAGEMENT

Due to recent creative advances, research has focused on how these two critical aspects of HRM and innovation might be linked. Typically, the focus is on how to employ innovation to make the enrollment process more efficient and fun (Galanaki et al. 2019). For the time being, the focus is on mechanical innovations that aid spotters, and as a result, the interface is becoming increasingly computerized. As a result, it's realistic to assume that the personal touch in enrollment is disappearing (Bondarouk and Brewster, 2016). Baxter (2018) attempts to predict the trends that will control enrolment in 2019 in his paper from 2018. He recommends undertaking a foresight study to avoid some of the guesswork that occurs before recruitment, but he also mentions AI as a tool that will be used when speaking with up-and-comers (Baxter, 2018). This idea focuses on artificial intelligence, which is one of the most recent advancements (AI). The use of AI in HRM was maybe the most remarkable trend among enrolling professionals. Because AI improves the enrolling process by taking over tedious tasks traditionally managed by human spotters, the application of AI in HRM and enlisting is referred to as "the new HR" (Upadhyay and Khandelwal, 2018).

Artificial Intelligence, is a broad term that encompasses a wide range of fields that may be used to a variety of sciences, as well as semantics and philosophy. HRM is also defined as a means of dealing with representative administration determined to maintain a labor force that is both fit and submitted using various methods, such as social, primary, and faculty, to offer the organization a leg up (Story, 2014). For the sake of this investigation, HRM will be described as a way for learning and sustaining new abilities, capabilities, and skills in an organization's labor force through the use of various management practice.

HRM practice include appointing new representatives, supervising employees, recruiting employees, and making improvements (Wall and Wood, 2015). The bulk of these procedures place a high priority on retaining new representatives and keeping their performance at a satisfactory level. This is due to the fact that human resources is a unique facet of a business that is always evolving, needing good management by an organization (Bibi et al. 2016).

HumanResource Management and maintenance might be argued to have a specific significance within manufacturing businesses, where there is a focus on improvement within manufacturing to gain a relative advantage and better exhibits. HRM's role inside an organization has evolved significantly over the years, and it is no longer merely used as a method to deal with expenses by different organizations with their operations. Later investigations are looking into HRM as a vital resource for organizations, where workers are the most important resource and how to obtain and manage them plays a major role (Bas, 2014).

2.9.1 HUMAN RESOURCE MANAGEMENT (HRM) ENLISTMENT

Inside enrollment research as part of HRM has grown in recent years, and there is now more accessible research on what enlisting really means for employee behavior (Taylor and Collins, 2020). Enlistment is defined as the process of locating the best candidates from a pool of applicants who are qualified for a job opening that a business has (Stoilkovska et al, 2015). Enlistment is also thought to be a focal point within HRM, as it is those employees who are employed who will be subjected to subsequent HRM procedures (Griepentrog et al. 2014). Newell (2015) agrees, stating that it is critical to have well-trained faculty in organizations, which is satisfied with a viable enlisting and determination measure.

Artificial Intelligence (AI) has been around for a long time and has a wide range of applications, but it is only in the last year that the technology has been further developed and implemented in a government environment (Tecuci, 2014). To grasp the concept of AI, the simplest method is to separate the phrases without the assistance of anyone else and examine each significance. In any event, despite the fact that AI has been around for a longer period of time, there isn't a single predetermined interpretation of the concept (Legg and Hutter, 2017).

The precarious thing is that many ways of characterizing intelligence exist. Some define AI as the creation of robots, machines, or projects that exhibit intelligent behavior comparable to that of humans (Tecuci, 2014). According to Kaplan (2016), intelligence is defined as "the capacity to make suitable assumptions in an ideal design based on restricted information". Intelligence enrollment specialists' evaluation activities more efficient (Faliagka et al. 2014). Artificial intelligence (AI) is used to power the competitor placement framework, and human enrollment specialists offer data to the AI computations, from which they learn about application scoring

capacity (Faliagka et al. 2014). According to Upadhyay and Khandelwal, chat bots are AI-driven enrollment collaborators that supply individual and exceptional association prospects with competitors via messages, instant messages, or the exchange box (2018). To assist selection agents with their obligations, a few PCbased work matchmaking solutions have been developed. Programming that sorts forever is one of these strategies, which can be accomplished out using learning-based methodologies and calculations (Montuschi et al. (2014). Video conferencing for prospective employee meetings has become a frequent recruiting tool for firms.

2.9.2 DIFFICULTIES IN RECRUITING USING ARTIFICIAL INTELLIGENCE

Despite research showing that new innovation and big data make HRM more effective and precise (Zang and Ye, 2015), some individuals believe that human asset investigation can be a fleeting pattern if innovation change does not figure out how to become a part of the executive dynamic (Rasmussen and Ulrich, 2015). Home security and the way information is maintained and broken down are two of the most noteworthy issues that AI-based enlistment implies. It is practically hard for associations to function successfully without converting are few challenges in recent days when it comes to innovation. According to the creators, deficits in ability are undoubtedly the most challenging assessment in the hiring market. This statement is supported by one of the experts interviewed, who stated that AI may struggle with social contrasts: "Machine social comprehension and language predispositions are two more AI problems. A place where AI may struggle to understand social boundaries, vocabulary, and how data is introduced in a specific region or culture." The employment of computer-based intelligence to replace regulatory responsibilities is widely accepted. A corporation can get benefits such as enhanced contact with competitors, a larger up-and-comer pool, the rediscovery of lost gifts, and overall improved enlistment results by introducing AI programming into the standard enrollment process. However, each organization should independently assess the use of AI programming in these areas of the enrollment interaction to determine if the way AI is used in enrolment is something that their organization demands.

CHAPTER 3

RESEARCH METHODOLOGY

3.0   INTRODUCTION

This research deals with the general strategy and the logistic that are employed in the conduct of the study. It examines the design, the procedure and the methodology used in the collection of data and vital information needed for answering the research question formulated to direct the study; it deals with the process of data collection, organizing and analysis of data.

3.1   RESEARCH APPROACH

Research approach is a plan and procedure that consist of the steps of broad assumptions to detailed method of data collection, analysis and interpretation. It therefore, based on the nature of the research problem been addressed. The research approach used for this research is quantitative method in which respondent is only restricted to questionnaire and the form of questionnaire is 'Close ended' one. Research approach is divided into qualitative, quantitative and mixed approach method.

3.1.1   QUALITATIVE RESEARCH

Qualitative research method is primarily exploratory research. It is used to gain an understanding of underlying reasons, opinions, and motivations. It provides insight into problem or helps to develop ideas or hypothesis for potential qualitative approach. Qualitative data collection method various using unstructured or semi-structured techniques. Some common method includes focus groups, individual interviews, and participation/observations.

3.1.2   QUANTITATIVE RESEARCH

It is an approach for testing objective theories by examining the relationship among variables. These variables, in turn, can be statistical procedures. The final written report has a set structure consisting

of introduction, literature and theory, methods, results, and discussion. Like qualitative researchers, those who engage in this form of inquiry have assumptions about testing theories deductively, building in protections against bias, controlling for alternative explanations, and being able to generalize and replicate the findings.

3.1.3 MIXED METHODS

This is an approach to inquiry involving collecting both quantitative and qualitative data, integrating the two forms of data, and using distinct designs that may involve philosophical assumptions and theoretical frameworks. The core assumption of this form of inquiry is that the combination of qualitative and quantitative approaches provides a more complete understanding of a research problem than either approach alone.
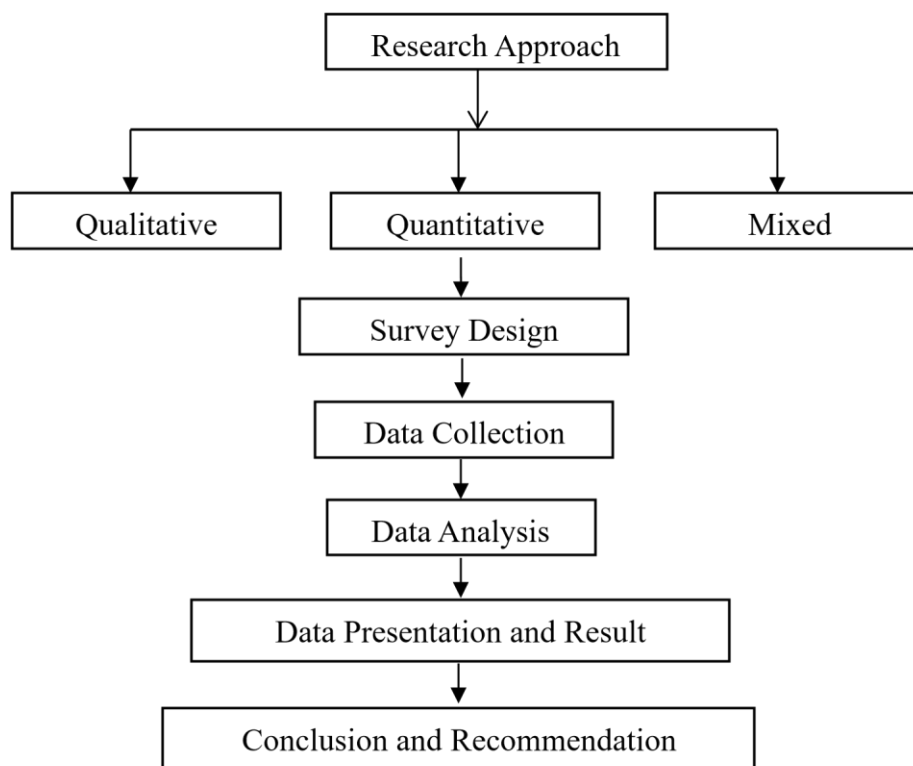
Figure 3.1 Research Methodology Flow Chart

3.2   RESEACH DESIGNS

The research designs refer to the overall strategy that is choice to integrate different component of the study in a coherent and logical way. This study adopted Quantitative research approach by the use of (questionnaire design); this method is used to determine individual opinion about Human Resource Management practices and to explore relationships between different HRM strategies and workers productivity. The design was appropriate because the study aimed at collecting information from respondents on their opinions on the impact of HRM on construction productivity in Nigeria.

3.3   POPULATION OF THE STUDY

The population of the study comprises professionals in construction industry namely: Quantity surveyors, Project Managers, Site Engineers and Builders. Which their population from the list of registered professionals collected from the secretariats of each profession, however, 127 number of registered Quantity surveyors, 85 number of registered Project Managers, 395 number of registered Site Engineers, and 199 number of registered Builders were received. The population is made of registered professional to related profession of this research in Oyo State. The population is 806 from the study area. Data for the population was collected from NIQS, NIPM, NSE, and NIOB chapter at Ibadan.

3.4   SAMPLING TECHNIQUE AND SAMPLE SIZE

The sample technique adopted for this study is random sampling method. This involve writing the name of registered professionals on cards and shuffling. The uppermost card was taken each time the card is shuffled, until the required sample size of 89 was achieved which made up of 15 quantity surveyors, 9 project managers, 39 site managers and 26 builders. Each professional was picked randomly and a total number of 89 questionnaires were distributed to respondents in Oyo states. Below shows how we achieve total number for sample size.

$$n = \frac{N}{1+N\,(e)_2}$$

Where e = level of significant (0.1)

        n = sample size

        N = Total number of populations

$$n = \frac{806}{1+806(0.1)^2}$$

$$n = \frac{806}{1+8.06} \quad n =$$

$$\frac{806}{9.060}$$

n = 88.962

n = 89

3.5   RESEARCH INSTRUMENTS AND MEASUREMENT

This study focuses on assessing the Human Resource Management (HRM) practices used by the construction firms to enhance workforce productivity. A well-structured questionnaire was administered to the respondents concerned within the selected area of study. Ranking was used as a research instrument, where participant is to rank from very important, important, neutral, low important and not important for objective one, five level of semantic differential scale where participant are to show the relationship of two factors with extremely useful, very useful, moderately useful, slightly useful and not useful for objective two while very effective, effective, moderately effective, less effective, not effective for objective three to provide answer option. It requires a parametric statistical test.

3.5.1 QUESTIONNAIRE DESIGN

Questionnaire design for this research will be a multiple-choice table and boxes, administration of structured questions based on research objectives. The information sought was divided into four sections:

Section A: The first questionnaire sought to collect demographic characteristics of correspondents, Respondents personal (e.g. Sex, the educational level, working experience in the industry, Qualification, Profession.)

Section B: Investigate how recruitment and selection practices influence the productivity of construction workers.

Section C: Examine the role of development in enhancing workforce productivity in construction projects.

Section D: Explore the relationship between employee engagement and productivity in the construction industry.

3.5.2 QUESTIONNAIRE ADMINISTRATION

The following are the method of administering questionnaire (a) personally administered (b) mail electronic and electronics questionnaire.

(a) Personally administered: This is a questionnaire design and prepared by the researcher and given to the respondents within a confide area.

(b) Mail or electronic questionnaire: This means that a wide range of geographical area can be covered in a survey. The questionnaire will be sent to the respondent who can complete them at their own convenient. Comparing these various methods, I adopt both personal and electronic questionnaire because of the time factor and can ensure 100% response.

3.5.3 DEMOGRAPHICAL INFORMATION

This refers to the methods that will be used to measure the dimensions and dynamics of populations or the year of existence of the construction firms.

The questionnaire was prepared in 4 sections with regards to respondents. Section A contains personal information about the respondents, while section B, C, and D contain general information which reflects the objective of this project.

3.5.4 RESEARCH INSTRUMENT

Measurement scale is a tools or mechanism by which an individual is distinguish as diver from one and other on the variable of interest to our studies. The assignment of numbers and qualitative attribute to object event or to the characteristics of object is known as research measurement. The types of scale use for data collection in research work here. Nominal, Interval and Ratio scale.

i. Nominal scale is one that allows research to assign subject to certain categories or groups.

ii. Ordinal scale is another scale that is use for some meaningful variables for which the categories are to be order according to some preferences.

iii. Interval scale allows us to perform certain arithmetic operation on the data obtain (collected) from the respondents.

iv. Ratio scale used to measure the magnitude of the difference between point on the scale and also taps the proportions in the differences with unique zero origin.

Nominal and Interval scale is adopted for this research problem. Nominal scale is use for the section A of the Questionnaire while Interval scale is use for the section B, C and D of the questionnaire.

3.6 DATA ANALYSIS

This research work is carried out by the use of ranking method. RII will be used to investigate how recruitment and selection practices influence the productivity of construction workers and also, RII will be used to examine the role of development in enhancing workforce productivity in construction project, Pearson Correlation Coefficient will be used to assess the relationship between employee engagement and productivity in the construction industry. In addition to RII, correlation analysis was used to examine the strength of relationships between different HRM strategies and their impact

on productivity levels. The Statistical Package for Social Sciences (SPSS) was used to carry out the analysis, ranking methods that were used to achieve the stated objectives.

Relative Importance Index (RII) is written as Relative Importance Index (RII) is written as

$$RII = \frac{\Sigma w}{AN} = \frac{5n_5 + 4n_4 + 3n_3 + 2n_2 + 1n_1}{5N}$$

Where;

RII = Relative Importance Index,

A = highest weight,

N = Total number of respondents,

n_5 = Number of respondents for "Very Important"

n_4 = Number of respondents for "Important"

n_3 = Number of respondents for "Neutral"

n_2 = Number of respondents for "Less Important"

n_1 = Number of respondents for "Not Important" for part B

n_5 = Number of respondents for "Extremely Useful"

n_4 = Number of respondents for "Very Useful"

n_3 = Number of respondents for "Moderately Useful"

n_2 = Number of respondents for "Slightly Useful"

n_1 = Number of respondents for "Not Useful" for part C

n_5 = Number of respondents for "Very Effective"

n_4 = Number of respondents for "Effective"

n_3 = Number of respondents for "Moderately Effective"

n_2 = Number of respondents for "Less Effective"

n_1 = Number of respondents for "Not Effective" for part D

CHAPTER 4

DATA PRESENTATION AND DISCUSSION

4.0   INTRODUCTION

This chapter presents the analysis and the result of the data obtained for the purpose of the study in accordance with the objectives of the study. The research questions stated earlier were tested using appropriate statistical tool and techniques.

4.1   QUESTIONNAIRES ADMINISTERED AND RETRIEVED

This presents information about number of questionnaires administered for the study. A total of 89 questionnaires were administered to professionals in contracting and consulting firms. The highest numbers of questionnaires were distributed to different professionals within the study area and a greatest proportion of valid questionnaires were retrieved from them. After eliminating all the valid questionnaires by adopting purposive sampling techniques, a total of 81 valid questionnaires representing a return rate of 91.0% of the distributed questionnaire were found suitable and considered sufficient for the study which were subsequently analyzed

Table 4.1: Distribution of Questionnaires Administered and Retrieved

Distribution of Questionnaires Administered and Retrieved	Frequency	Percentage (%)
Questionnaires Administered	89	100.0
Questionnaires Retrieved	81	91.0
Questionnaires Not Retrieved	8	9.0

Source: Field Survey (2025)
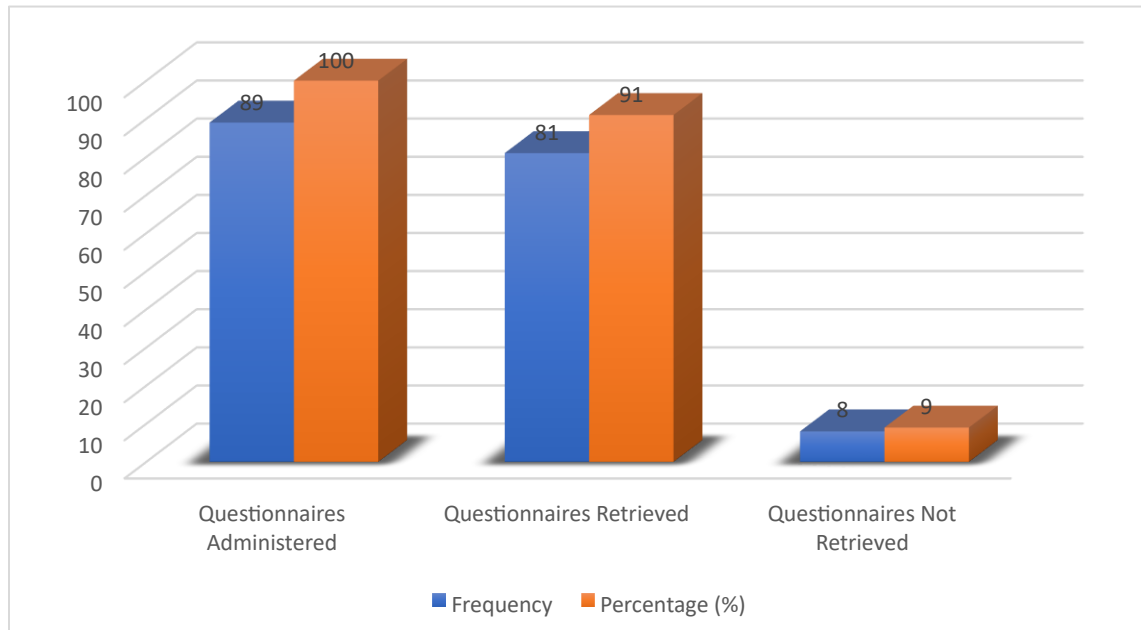
Figure 4.1: A chart showing the questionnaire administered and retrieved

4.2   DEMOGRAPHIC INFORMATION OF RESPONDENTS

Table 4.2: Designation of Respondents

Designation of respondents	Frequency	Percentage (%)	Cumulative percentage (%)
Quantity Surveyor	14	17.3	17.3
Project Manager	9	11.1	28.4
Site Engineer	32	39.5	67.9
Builder	26	32.1	100.0
Total	81	100.0	100.0

44
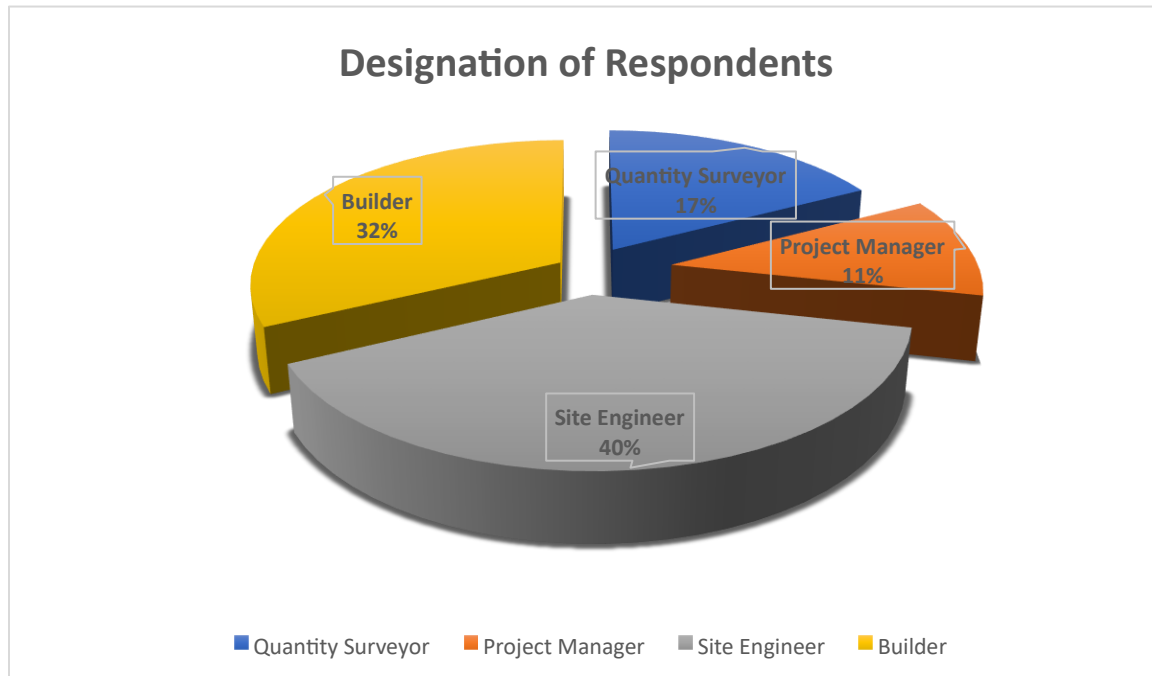
Figure 4.2: Chart Showing the Designation of Respondents

The table and figure 4.2 above present the various professional designations of the respondents who participated in this study. The highest proportion of respondents were Site Engineers, accounting for 39.5% of the total sample. This is followed by Builders with 32.1%, Quantity Surveyors at 17.3%, and Project Managers comprising 11.1%.

Table 4.3: Years of Professional Experience

Years of experience	Frequency	Percentage (%)	Cumulative percentage (%)
1 – 5 years	30	37.0	37.0
6 – 10 years	22	27.2	64.2
11 – 15 years	29	35.8	100.0
Total	**81**	**100.0**	**100.0**
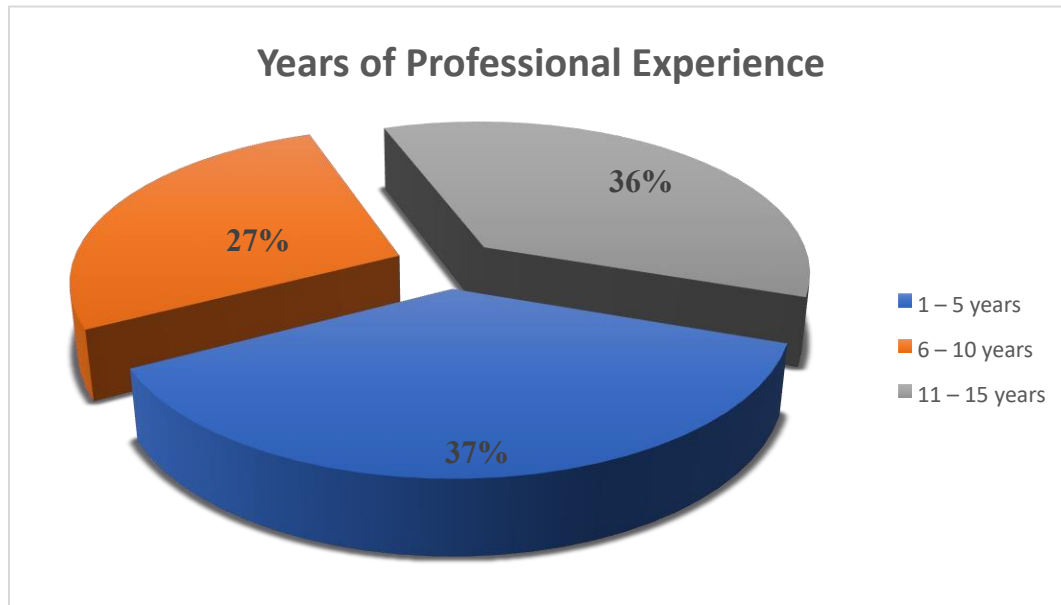
Figure 4.3: Chart Showing Years of Professional Experience

The data above shows the number of years of professional experience of the respondents. A total of 37.0% of respondents have between 1–5 years of experience, followed by 35.8% with 11–15 years of experience, and 27.2% with 6–10 years of experience. This distribution suggests that a significant portion of the respondents have gathered substantial industry knowledge over time, with more than 63% of them having over 6 years of practical experience. This validates the reliability of the responses received, as it demonstrates that the participants are not only academically qualified but also seasoned in the practical application of construction-related strategies.

Table 4.4: Educational Qualification of Respondents

Educational qualification	Frequency	Percentage (%)	Cumulative percentage (%)
HND	11	13.6	13.6
B.Sc	21	25.9	39.5
PGD	13	16.0	55.6
M.Sc	25	30.9	86.4
PhD	11	13.6	100.0
Total	**81**	**100.0**	
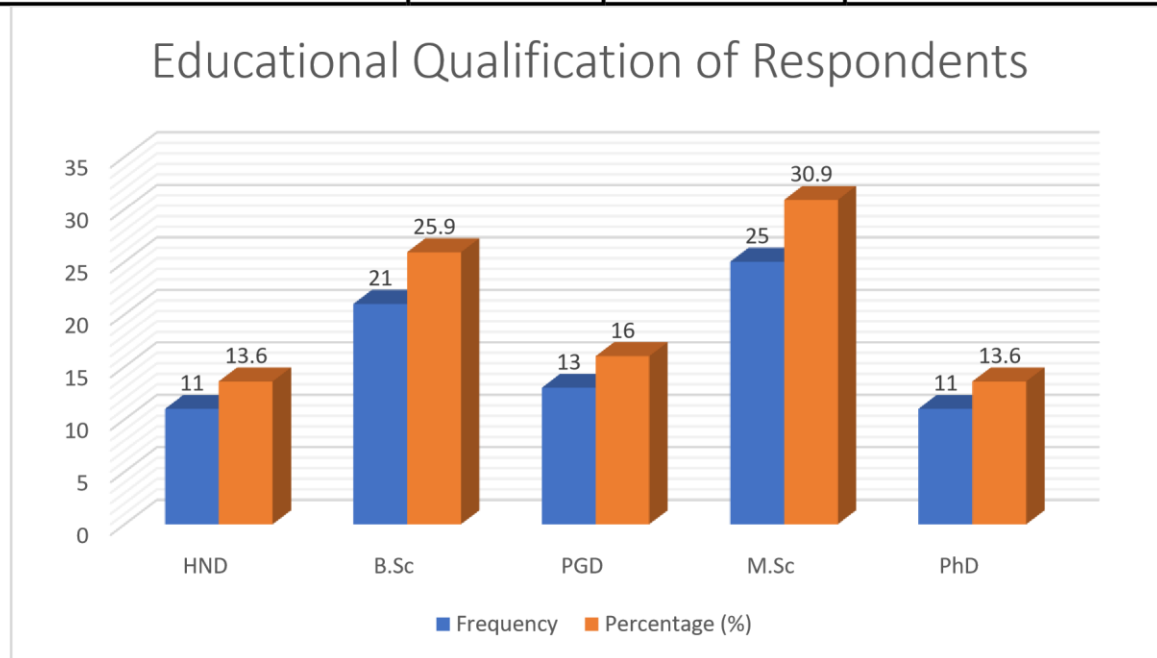
Figure 4.4: Chart Showing Educational Qualification of Respondents This table outlines the academic qualifications of the respondents. The majority, 30.9%, possess a Master's Degree (M.Sc), followed by 25.9% with a Bachelor of Science (B.Sc), and 16.0% with a Postgraduate

Diploma (PGD). Higher National Diploma (HND) and Doctor of Philosophy (PhD) holders constitute 13.6% each. This distribution highlights that a significant portion of the respondents have attained postgraduate qualifications, suggesting a high level of academic competence among the study participants, which enhances the credibility of their responses.

Table 4.5: Professional Qualification of Respondents

Professional qualification	Frequency	Percentage (%)	Cumulative percentage (%)
MNIQS	15	18.5	18.5
MNIOB	26	32.1	50.6
MNSE	30	37.0	87.7
MNIP	10	12.3	100.0
Total	**81**	**100.0**	**100.0**
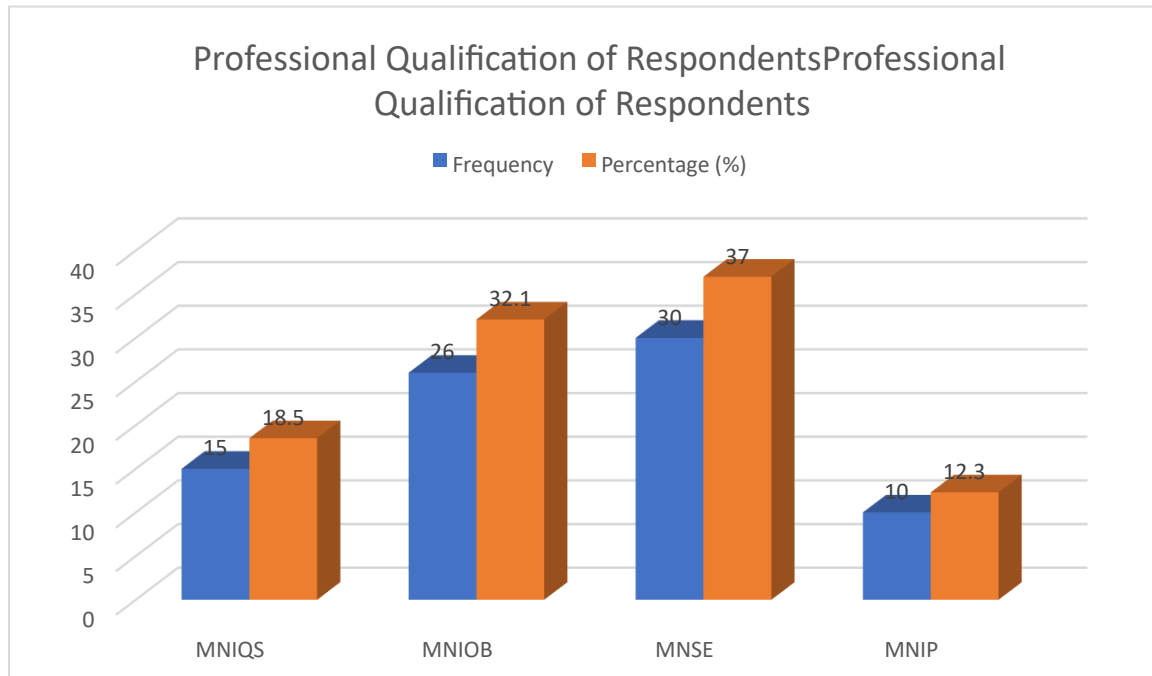
Figure 4.5: Chart Showing Professional Qualification of Respondents

From the data presented, 37.0% of the respondents are members of the Nigerian Society of Engineers (MNSE), followed by 32.1% belonging to the Nigerian Institute of Building (MNIOB). Additionally, 18.5% are members of the Nigerian Institute of Quantity Surveyors (MNIQS), while 12.3% are affiliated with the Nigerian Institute of Planners (MNIP). This variation reflects a multidisciplinary pool of professionals, each bringing specialized insight from their respective fields. The dominance of MNSE and MNIOB members underscores the importance of engineering and building disciplines in project execution and management.

Table 4.6: Type of Organization

Type of organization	Frequency	Percentage (%)	Cumulative percentage (%)
Contracting	43	53.1	53.1
Consulting	38	46.9	100.0
Total	**81**	**100.0**	**100.0**

Figure 4.6: Chart Showing Type of Organization This table shows the types of organizations the respondents are affiliated with. A majority, **53.1%**, are from contracting organizations, while **46.9%** are from consulting firms. This balance provides a comprehensive representation of viewpoints from both implementation and advisory roles within the construction industry. The slight dominance of contractors suggests the study is more reflective of on-site practices, logistics,

and material management fitting the research objectives centered on contractor profitability and resource utilization.

4.3 Objective One –Investigating How Recruitment & Selection Practices Influence Productivity of Construction Workers

Table 4.7: RII Ranking of Recruitment & Selection Practices

RECRUITMENT & SELECTION Practice	SUM	RII	Rank
Transparent recruitment process	103	0.852	1st
Clear job descriptions and specifications	92	0.760	2nd
Recruitment based on qualifications and skills	89	0.735	3rd
Fairness & equal opportunity during selection	88	0.728	4th
Recruitment based on site-specific needs	86	0.712	5th
Timely recruitment to meet project deadlines	85	0.705	6th
Use of modern tools for candidate assessment	81	0.672	7th
Role of HR in selecting qualified personnel	79	0.655	8th
Alignment with long-term organizational goals	78	0.648	9th
Recruitment using digital/automated systems	76	0.632	10th

Transparent recruitment processes emerged as the most critical practice, with the highest RII of 0.852. Clearly defined job descriptions and skills-based recruitment closely follow. While digital recruitment tools ranked lowest, they still maintain moderate importance. These findings

underscore that procedural clarity, fairness, and alignment between roles and skills are foundational to boosting productivity through recruitment.

4.4   Objective Two – Examine the Role of Development in Enhancing Workforce Productivity in Construction Project

Table 4.8: RII Ranking of Development Practices

WORKFORCE DEVELOPMENT STRATEGIES	SUM	RII	Rank
Regular technical training	104	0.860	1st
Supervisor-led development sessions	99	0.820	2nd
External workshops/external training	97	0.803	3rd
Feedback and performance appraisals	96	0.795	4th
Availability of training resources & funding	94	0.778	5th
Career advancement planning	92	0.762	6th
Professional certification (e.g. CPO)	88	0.729	7th
Soft-skills and communication training	86	0.712	8th
Safety and regulatory training	85	0.705	9th
Mentorship and coaching programs	85	0.705	9th

Technical training ranks highest (RII = 0.860), indicating it is the most valued approach to develop worker competence. Supervisor-driven sessions and external workshops follow closely, highlighting the importance of structured, diverse learning formats. While mentorship ranks

lowest, it remains moderately beneficial. Overall, the data emphasize a preference for formal, resource-backed development strategies.

4.5   Objective Three – Exploring the Relationship Between Employee Engagement and Productivity in the Construction Industry

Table 4.9.1: RII Ranking of Engagement Strategies

Engagement Strategy	SUM	RII	Rank
Performance-based incentives	109	0.849	1st
Team-building initiatives	107	0.833	2nd
Participation in safety/planning briefings	105	0.820	3rd
Open communication with supervision	103	0.803	4th
Staff feedback opportunities	102	0.795	5th
Access to welfare & support services	102	0.795	5th
Inclusion in decision-making process	101	0.786	7th
Conflict resolution mechanisms	100	0.779	8th
Flexible work and time management options	99	0.771	9th
Recognition and reward for performance	99	0.771	9th

Performance-based incentives top the engagement strategies (RII = 0.849), revealing strong motivation when rewards directly tie to outcomes. Team-building and inclusion in safety briefings also score highly, reflecting the value of collaborative culture and involvement. While recognition ranked lower, it still contributes positively. Collectively, these strategies suggest that structured

incentives, group cohesion, and inclusive processes are central to improving worker productivity.

Table 4.9.2: Pearson Correlation Coefficient of Engagement Strategies

	Productivity	Employee Engagement
Productivity	1	.414**
Employee Engagement	.414**	1
Sig. (2-tailed)		0.000
N	81	81

Interpretation:

The Pearson correlation coefficient (r = .414) indicates a moderate positive relationship between employee engagement and productivity in the construction industry. The significance value (p = 0.000) is less than 0.01, which confirms that the relationship is statistically significant at the 1% level.

This means that as employee engagement increases, productivity also tends to increase in a significant and meaningful way. The correlation is not weak or by chance, it is reliable and shows that these two variables are connected in a real-world context within the sampled population.

This finding aligns with prior research that emphasizes the importance of engaging employees to enhance performance and project outcomes in the construction sector.

4.6 DISCUSSION OF FINDINGS

Objective One - To investigate how recruitment and selection practices influence the productivity of construction workers.

The findings reveal that recruitment and selection practices significantly affect the productivity of construction workers. Among the identified factors, the top three based on the Relative Importance Index (RII) are transparent recruitment process with an RII of 0.852, showing that hiring the right candidates directly boosts output on site, followed clear job descriptions (RII = 0.760), emphasizing the risks of ineffective hiring practices that result in unqualified personnel and thirdly, recruitment based on qualification and skills (RII = 0.735), suggesting that hiring competent individuals reduces the need for extensive training and adjustment periods.

Objectives two - To examine the role of development in enhancing workforce productivity in construction projects.

The analysis demonstrates that training and development play a vital role in enhancing workforce productivity. The three most important items based on their RII scores are, regular technical training with an RII of 0.860, followed by, supervisor-led development (RII = 0.820), external workshops and external training (RII = 0.803), showing that tailored training programs help improve task performance

Objectives three - To explore the relationship between employee engagement and productivity in the construction industry

The third objective of this study was to explore the relationship between employee engagement and productivity in the construction industry. To achieve this, a Pearson Correlation analysis was conducted using SPSS software. The correlation results provided key insights into the nature and strength of the relationship between the two variables: employee engagement and productivity.

The results show a Pearson correlation coefficient of 0.414 between employee engagement and productivity, with a significance value of 0.000. This indicates a moderate positive relationship, suggesting that as employee engagement increases, productivity tends to rise correspondingly. The relationship is statistically significant at the 0.01 level (2-tailed), meaning there is less than a 1% probability that this correlation occurred by chance.

This finding implies that organizations within the construction industry stand to benefit from strategies and practices that foster employee engagement. When employees are more engaged demonstrating commitment, involvement, and satisfaction with their work they are more likely to perform better, meet project timelines, and contribute positively to organizational productivity.

The significance of the correlation aligns with prior research in human resource management and organizational behavior. Studies have consistently shown that engaged employees are more productive, creative, and loyal to their employers. In the context of construction, where team coordination, timelines, and efficiency are critical, employee engagement becomes even more essential for maintaining productivity levels.

CHAPTER 5

CONCLUSION AND RECOMMENDATION

5.0   INTRODUCTION

This chapter is aimed at giving the summary, conclusion and recommendations of the study.

5.1   CONCLUSION

This research is carried out to address the key issues which are the three major targets of the research work. For the purpose of this work, several published journals were reviewed both within and outside the country in order to gain insight of the impact of human resource management on construction management, conclusion drawn are:

Objective One - To investigate how recruitment and selection practices influence the productivity of construction workers.

The findings reveal that recruitment and selection practices significantly affect the productivity of construction workers. Among the identified factors, the top three based on the Relative Importance Index (RII) are transparent recruitment process, showing that hiring the right candidates directly boosts output on site, followed clear job descriptions (RII = 0.760), emphasizing the risks of ineffective hiring practices that result in unqualified personnel and thirdly, recruitment based on qualification and skills (RII = 0.735), suggesting that hiring competent individuals reduces the need for extensive training and adjustment periods.

Objectives two - To examine the role of development in enhancing workforce productivity in construction projects.

The analysis demonstrates that training and development play a vital role in enhancing workforce productivity. The three most important items based on their RII scores are, regular technical training with an RII of 0.860, followed by, supervisor-led development (RII = 0.820), external workshops and external training (RII = 0.803), showing that tailored training programs help improve task performance

Objectives three - To explore the relationship between employee engagement and productivity in the construction industry

This finding implies that organizations within the construction industry stand to benefit from strategies and practices that foster employee engagement. When employees are more engaged demonstrating commitment, involvement, and satisfaction with their work they are more likely to perform better, meet project timelines, and contribute positively to organizational productivity.

The significance of the correlation aligns with prior research in human resource management and organizational behavior. Studies have consistently shown that engaged employees are more productive, creative, and loyal to their employers. In the context of construction, where team coordination, timelines, and efficiency are critical, employee engagement becomes even more essential for maintaining productivity levels.

5.2   RECOMMENDATION

Based on the results of the research work, it is recommended that;

i.   Construction firms should establish structured, merit-based recruitment procedures that prioritize competence, experience, and cultural fit. This will ensure the engagement of a capable and productive workforce.

ii. Organizations should provide regular professional training, safety workshops, and leadership development programs. This will equip employees with the necessary skills and keep them aligned with emerging industry trends.

iii. Management should foster open communication, recognize outstanding performance, and involve employees in decision-making processes. Such practices build trust, loyalty, and job satisfaction.

iv. Digital tools like HR analytics platforms, BIM integration, and automated tracking systems should be adopted to streamline workforce planning and monitor productivity.

v. Construction firms must implement strong occupational health and safety policies. Wellness initiatives and mental health support programs should also be established to reduce burnout and improve morale.

5.3 AREA FOR FURTHER STUDY

This research is opened to further research and it is advised that for further research, the participants in the construction industry should be more aware of the impact of human resource management on construction productivity.

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APPENDIX 1

QUESTIONNAIRE

Department of Quantity Surveying,

Institute of Environmental Studies,

Kwara State Polytechnic Ilorin,

P.M.B. 1375, Ilorin,

Kwara State.

Dear Sir/Ma,

THE IMPACT OF HUMAN RESOURCE MANAGEMENT ON

CONSTRUCTION PRODUCTIVITY

I am a Higher National Diploma student in the department of Quantity Surveying, Kwara State Polytechnic Ilorin, Kwara State, undertaking research on the above-mentioned topic.

The following questions served to collect necessary data to complete the study on the abovementioned topic as part of the requirements for the award of Higher National Diploma (HND) Quantity Surveying.

All information given by the respond shall be purely for academic purpose and only thus treated with the confidentiality it deserves.

Thanks, your prompt attention and cooperation.

Yours faithfully,

_____

ADESOKAN, AYODELE OLUSHOLA

The researcher

APPENDIX II

SECTION A: DEMOGRAPHIC INFORMATION

Please, tick (✓ **) your answer accordingly and as appropriate.**

1. **Designation of respondents:**

    (a) Quantity Surveyor (   ) (b) Project Manager (   ) (c) Site Engineer (   ) (d) Builder (   )   (e) Client (   )

2. **Kindly indicate your years of professional experience:**

    (a) 1 – 5years (   ) (b) 6 – 10years (   ) (c) 11 – 15years (   ) (d) 16 – 20years (   ) (e) 20 years and above (   )

3. **Educational qualification of the respondents:**

    (a) HND (   ) (b) B.TECH (   ) (c) B.Sc (   ) (d) PGD (   ) (e) M.Sc (   )(f) PhD (   )

4. **Professional qualification of respondents:** (a) MNIQS (   ) (b) MNIOB (   ) (c) MNSE   (   ) (e) MNIP (   ) (f) OTHERS: _____

5. **Type of Organization:**

    (a) Contracting (   ) (b) Consulting (   )

SECTION B: INVESTIGATING HOW RECRUITMENT AND SELECTION PRACTISE INFLUENCE THE PRODUCTIVITY OF CONSTRUCTION WORKERS

Below are some recruitment and selection practice used by contractors in managing the productivity of construction workers

Kindly rank the level of important for the following recruitment and selection practice are influencing productivity in your firm using Likert scale of 5 = Very Important (VI), 4 = Important (I) ,3 = Neutral (N), 2 = Less Important (LI), 1 = Not Important (NI)

S/N	RECRUITMENT & SELECTION PRACTICES	VERY IMPORTANT (VI) 5	IMPORTANT (I) 4	NEUTRAL (N) 3	LESS IMPORTANT (LI) 2	NOT IMPORTANT (NI) 1
1.	Clear job descriptions and specifications					
2.	Transparent recruitment process					
3.	Recruitment based on qualifications and skills					
4.	Fairness and equal opportunity during selection					
5.	Use of modern tools for candidate assessment					
6.	Timely recruitment to meet project deadlines					
7.	Role of HR in selecting qualified construction personnel					
8.	Recruitment base on site specific needs					
9.	Alignment of selection with long term goals					
10.	Recruitment using digital/automated systems					

SECTION C: EXAMINING THE ROLE OF DEVELOPMENT IN ENHANCING WORKFORCE PRODUCTIVITY IN CONSTRUCTION PROJECT

Below are the different levels of Human Resource Development strategies used by contraction firms to improve workforce productivity in construction project.

Kindly differentiate with the scale as appropriate to your organization of implementing the following development practice in your firm using Semantic differential scale of 5 = Extremely Useful (EU), 4 = Very Useful (VU), 3 = Moderately Useful (MU), 2 = Slightly Useful (SU), 1 = Not Useful (NU)

S/N	WORKFORCE DEVELOPMENT STRATEGIES	EXTREMELY USEFUL (EU) 5	VERY USEUL (VU) 4	MODERATELY USEFUL (MU) 3	SLIGHTLY USEFUL (SU) 2	NOT USEFUL (NU) 1
1.	Regular technical training					
2.	Mentorship and coaching programs					
3.	Soft skills and communication training					
4.	Professional certifications					
5.	Safety and regulatory training					
6.	Career advancement planning					
7.	Supervisor-led development sessions					
8.	Suspended workshops or external training					
9.	Feedback and performance appraisals					

S/N				
10.	Availability of training resources and funding			

SECTION D: EXPLORING THE RELATIONSHIP BETWEEN EMPLOYEE ENGAGEMENT AND PRODUCTIVITY IN THE CONSTRUCTION INDUSRY

Below are different levels of how to explore the relationship between employee engagement and productivity in the construction industry using Likert scale of 5 = Very Effective (VE), 4 = Effective (E), 3 = Moderate Effective (ME), 2 = Low Effective (LE), 1 = Not Very Effective (NVE)

S/N	EMPLOYEE ENGAGEMENT STRATEGIES	VERY EFFECTIVE (VE) 5	EFFECTIVE (E) 4	MODERATELY EFFCTIVE (ME) 3	LESS EFFECTIVE (LE) 2	NOT EFFECTIVE (NE) 1
1.	Recognition and reward for performance					
2.	Open communication with supervision					
3.	Inclusion in decision making process					
4.	Staff feedback opportunities					
5.	Access to welfare and support services					
6.	Team-building initiative					
7.	Conflict resolution mechanisms					
8.	Flexible work and time management options					

67

9.	Participation in safety and planning briefings					
10.	Performance based incentives					