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Effects of Project Human Resources Management on Project Success: A study of Toptech Contractors Nigeria Ltd

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Abstract

The study examines the effect of project human resources on project success of Toptech Contractors Nigeria Ltd. A review of current literature showed that different studies used key indicators of human resources such as recruitment, selection, performance and appraisal as a determinant of project success without considering the role of leadership. This study assesses the situation by evaluating the extent to which leadership and recruitment account for changes in stakeholders' satisfaction. To assess the situation, the study adopted a survey research design. 120 questionnaires were administered to staff of Toptech Contractors Nigera Ltd., Ikeja branch. Using simple random sampling techniques, the data collected was analysed using descriptive and inferential statistics, specifically correlation analysis. The findings revealed that there is a strong and positive relationship between recruitment and stakeholders' satisfaction, and both leadership and recruitment account for changes in stakeholders' satisfaction. The study made clear from the analysis that leadership, if properly executed, will bring about the desired response from stakeholders, thus eliciting a favourable perception. It was therefore recommended among others that the organisation should always put in place sound leadership training persuasive enough to sweep in a large volume of good leaders into its employee database and also to improve on their recruitment process as it influences stakeholders' engagement and satisfaction.

Keywords: Human Resources, Leadership, Project Success, Recruitment

INTRODUCTION

Human resources management (HRM) can be defined as the management of people in the workplace. It can be said to be the management of people from the point of entry to the point of exit. HRM is about managing the workforce in order to create value for the company. it contributes to the success of the organisation and creates a competitive advantage for the organisation. The human resources function has evolved since the 1980s from the function of managing payroll administration to developing skills and managing competencies. Currently, HRM makes part of a company strategy and considers people as a resource rather than cost. The human resources function reforms many notions like recruiting, training, compensation and benefits attribution, career development, and motivating staff. Currently, HRM tends to provide a strategic competitive advantage to an organisation (Berber and Lekovic, 2013).

The discipline developed with the arrival of the industrial revolution in the latter part of the 18th century, which positioned the basis for a new and multifaceted modern world. In simple terms, the industrial revolution began with the substitution of steam power and machinery for laborious and inefficient hand labour. Since then, the working conditions and the typical pattern and division of labour were changed meaningfully. During the Industrial Revolution, a new kind of employee sprung up. A foreperson or manager who was not naturally the owner, as had usually been the case in the past, became an influencer in the novel factory system. With this revolution, the gap between the employee and employer became wider at that time (Ivancevich, 2013)

The drastic changes in technology, the growth of organisations, the rise of unions, and government concern and intervention concerning working people resulted in the establishment of personnel departments around the 1920s. Since then, more and more organisations seemed to take note of and do something to resolve the conflict between employees and management. Early personnel administrators were called welfare secretaries. Their job was to bridge the gap between management and workers (Ivancevich, 2013).

Because of the function of HRM, the concept was included as one of the core disciplines of project management. It was captured as project human resources management. People in organisation make decisions, and these decisions can either guarantee organisational survival or introduce chaos into the organisation. This study assesses the situation using Toptech Contractors Nigeria Limited. The idea is to establish the need for human resources management in organisation

Statement of the Problem

According to Gant, Ichinowski and Shaw (2012), most of the project firms are adopting change management techniques to cope with the challenges of new technology, globalisation and entry in to international markets. Besides, customers' expectations regarding the quality and services of the project have put new challenges to project firms. All of these factors force management to manage the project efficiently to ensure on-time and successful completion of the project. To make all these possible, the responsibility lies on the shoulders of the project manager to explore the critical success factors affecting the successful completion of the project. Hence, the paper aims to focus on the following research question: "What is the effect of human capital practices on the success of the project?"

Adeel and Farooq (2015) examined the relationship between human resources practices and perceived project success in project-based Pakistani organisations. Their study used Employee training and development, employee performance appraisal andcompensation system and Islamic work ethics in Pakistani organisations. Their study found that the number of successful projects is alarmingly small and it can be attributed to the fact that essential constituents that institute the success of a project are flexible and cannot be enumerated as guidelines in a standard template.

Huimar, Junaid, Haisam and Amma (2018) also looked at the roles of Human resources management in project success of organisations in southern Punjabi, Pakistan using performance appraisal and employee training and development as predictor variables against project success. Their research discovered that there is a positive relationship between the predictor variables and project success.

A broad classification of human resources has two things in common; the leaders and the followers. This research, therefore, examines the effects of human resources management on project

success by using leadership and recruitment as variables for measuring human resources against project success

Objectives of the Study

This research aims to study the role of human resource management in construction project success. The primary objectives of this research are to evaluate the extent to which leadership and recruitment account for changes in stakeholders' satisfaction; and to determine the relationship between recruitment and stakeholders' satisfaction. The research questions are: To what extent does leadership account for changes in stakeholders' satisfaction?; and What relationship exists between recruitment and stakeholders' satisfaction?.

Research Hypotheses

H₀: Leadership does not account for changes in stakeholders' satisfaction to a large extent

H₀: There is no relationship between recruitment and stakeholders' satisfaction

Definition of human resource management

Project human resource management describes the effective use of the workforce involved in the project (Duncan, 2006; PMI, 2018). The type and number of project team members may frequently change throughout the project. It involves developing a human resource plan, acquiring project team, develop a project team and manage the project team. Developing a human resource plan is the process of identifying the roles, responsibility, required skills, and reporting relationship and documents them into a staff management plan (PMI, 2018). Acquiring project team is the process of obtaining the necessary human resource to complete the project works. Developing a project team is the process of enhancing project performance through constant improvement of team interaction and environment. Managing a project team is the process of tracking the performance of all the team members, resolving issues provided by the members in order to optimise project performance (PMI, 2018).

Martina, Anne, and Rodney (2017) conducted a study on human resource management in a project orientated company. This paper aims to provide an overview of past research on Human Resource Management in the context of projects, published in the project management, general management, and Human Resource Management literature. They developed a model of the critical Human Resource Management aspects of project-oriented organising, based on prior research and used it to structure the review. Finally, they summarised the significant shortcomings of research in the field of Human Resource Management in the project-oriented company and outlined a research agenda to address outstanding areas of research on this topic.

Rodney, Martina, and Anne (2018) conducted a study on Human resource management in a project-oriented organisation in the aspect of employee well-being and ethical treatment. In this paper, they reported their results on the Human Resource Management practices adopted in project-oriented organisations to fulfil the secondary role. They found that by and large in project-oriented organisations, the management support role dominates, and they are not very good at caring for employees. The need for profit and responding to client demands often takes precedence over employee well-being. However, some of the organisations they interviewed have adopted Human Resource Management practices to care for employees. Also providing employees with career development opportunities is as essential for the individual as it is for the organisation.

Huemann, Keegan, and Turner (2017) stated that the mainstream of Human Resource Management literature still gives considerable attention to human resources in routine organisations. The Human Resource Management function practices in flat and flexible project-oriented companies have generally been neglected. Most of the Human Resource Management research is undertaken from a managerial and prescriptive perspective. Therefore, the research of Human Resource Management in a project-oriented company must take the perspective of the individual employee as well as organisation. They recommend the future research of Human Resource Management to be more emphasised on

identifying the Human Resource Management policies, practices and process adopted by project orientated companies.

Patanakul, Iewwongcharoen, and Milosevic (2018) had conducted a study on the effectiveness of managing a group of multiple projects. Their study is more on the management of a group of multiple projects (MGMP). Their findings showed that organisational-level and operational level influencing the effectiveness in MGMP and the criteria to measure MGMP effectiveness. They recommend the research to MGMP research across the borders of the project management domain.

As for personnel, Baccarini (2009), Johns (2015) and Wateridge (2015) show the need for the clear understanding, communication and agreement of the project's goals and demands in order for them to have a positive impact on the project's outcome, whereas Lopes and Flavell (2008) refer to the fact that the personnel allocated to the project must possess adequate individual knowledge and skills. On the other hand, Fabi and Pettersen (2012) show that the personnel assigned to the project should be in an adequate number and have the necessary abilities.

Given that the nature of projects can vary greatly, workers with more creativity, problem-solving skills and work capacity (with concepts and ideas) are the most adequate. Kuprenas (2013), while studying the matrix structure as a project organisational structure, suggests that workers should possess strong communication skills, the ability to work as part of a team and adaptability to the possibility of change. Taylor *et al*. (2015) add that employees should feel comfortable working in environments with a certain degree of ambiguity.

Gray (2011) and Lopes and Flavell (2008) noted experience, technical skills and positive personal relationships, especially within a teamwork context as relevant factors. On the other hand, Belout (2008) considers that it is essential to analyse the legal labour restrictions and treat employees fairly, respecting work contracts. He adds that it is essential to consider the power of unions and negotiate agreements and working conditions with them.

Definition of Project and Project versus Operation

A project by nature is temporary work, whereby the work has a designated start, and end time; on the other hand, an operation is an ongoing process with no beginning and ending time (Huemann*et al*., 2017). Besides that, a project can also be differentiated from operation through the observation of the output. A project always produces different results, while operation has a repetitive and similar output (Huemann*et al*., 2017). Usually in a project, the project team will disperse upon project completion, while in operation; the employees will remain along with the organisation (Huemann*et al*., 2017). Both of these methods are also executed in order to achieve organisational objectives or business plan (PMI, 2018).

Project Success

Traditionally, the success of a project can be evaluated through time, cost, and quality (Chan, Scott, and Lam, 2002). The current perspectives of project success are straightforward to evaluate and measure (Willard, 2015) but there have been many criticisms from others (Shenhar, Dvir, and Levy, 2017; Alarcon, Grillo, Freire, and Diethelm, 2018).

Samiaah, Hassen, Al-Tmeemy, Hamzah and Zakaria (2011) conducted a study on future criteria for the success of building projects in Nigeria. The outcome of this study indicated that a categorisation scheme for success criteria for building projects should include the categories of project management success, product success, along with market success.

Belout and Gauvreau (2014) had conducted a study on factors influencing project success in the aspect of the impact of human resource management. The study showed that there was a link between project success and personnel factors. Their results show that the relationships between the independent variables and project success will differ according to project life cycle stage. Apart from that, the result also showed that for three distinct structures (practical, project-based and matrix), management support and trouble-shooting variables were significantly related to project success.

Ofer and Esther (2010) conducted a study on Human Resource Management in project groupsand the effect of project duration on team development effectiveness. Their results showed that the effects of team development was only valid on operational business and had not much effect on project success.

However, they did confirm that project duration was found to moderate the relationship between team development and project success. The effectiveness of team development increases with duration of project.

Belout and Gauvreau (2014) studied the factors influencing project success in the aspect of human resource management. Their findings showed that there was a link between personnel factors and project success. However, this factor did not impose any significant effect on project success. Furthermore, the result showed that the three main distinctive organisational structures (functional, project-based and matrix), the Management support and trouble-shooting variables were significantly correlated to project success. They recommended that future studies should focus on the impact of PIP (Project Implementation Profile) factors while merging the combined effect of moderating factors on the project success variables.

Human Resources Management and Project Success

Human Resources Management (HRM) is the management of people in specific areas. In the beginning, around the 1980s, HRM was seen as a traditional managing function that dealt with personnel administration, recruitment, union relations and salaries establishment (as cited in Bredin and Soderlund, 2016). More and more, HRM is being considered as a strategic function. It is about managing skills and competencies to add value to the company. Employees are essential for organisation success. According to Bredin and Soderlund (2016) HRM regroups two main fields namely; strategic management and human relations. That is to say employees are now more than a variable; they are a resource and a potential added value.

Here, the role of human resource in project management was studied. As a starting point, HRM was defined and how it can be linked to project management. If this study relies on Dinsmore and Cabanis-Brew (2011), human resources are the function that deals with people in charge of a project. In other words, HRM is about organising and managing a project team. Project Management requires a group of people organised in a team which aims to achieve specific goals according to a given project. Thus, in this analysis, the study links HRM with Project Team Management (PTM). A project is evaluated by its success, and people are part of this success. Therefore, it appears that HRM in project management has a fundamental and strategic role for project success.

The purpose now is to define this role, to see how it can be fulfilled and what the key issues are. First, it appears that the HR role in Project Management is composed of several 'layers'. According to literature, this number of layers varies from three to six. For example, Dinsmore and Cabanis-Brew (2011) estimate four critical assumptions of the HR role in Project Management. These are Human Resource Planning, Acquire Project Team, Develop Project Team and Manage Project Team while Larose and Corriveau (2009) identified two more activities, which are Mobilisation and Culture Integration. This research will focus on three main processes within the HR role in Project Management: Selecting, Training and Managing. Those three practices will enable the project manager to analyse the main challenges HR managers face when they are involved in Project Management.

Human Resource Management Activities in Construction Project Success

ITU-D (2018) conducted a survey regarding Human Resource Management in the ICT industry. The results showed that managing change, organisational development and leadership development are the top challenges in Human Resource Management. The findings of the survey also showed that the top Human Resource Management activities are the management of talent and competencies, performance improvement and strategic human resource management.

Norman (2013) stated that motivation is critical in inspiring employees towards project success. Simpson, Tuck, and Bellamy (2017) also stated that in order to foster motivation within each team member on a project, the project manager must take time to understand how every individual is motivated. In other words, the project manager should avoid applying a broad application of motivation to all team members based solely on the manager's perception.

Ewen (2016), in his study involving 1021 life insurance agents on the effects of specific Herzberg's motivators and hygiene factors on general job satisfaction, found out that Herzberg's theory

was not well supported. For example, hygiene factors such as company policies and manager's interest in agents are perceived by the agents as one of the job motivators. On the other hand, monetary reward such as incentives, salary and commission were also perceived as motivators in 80 per cent of the agents involved in the study. Prestige also acted as a motivator in this study. Many agents perceived that title and advancement would motivate them the most.

Parus (2009) stated that compensation practices should be viewed from a total rewards perspective where compensation includes psychological rewards, learning opportunities, and recognition in addition to monetary rewards in the form of base pay and incentives (Graham, Murray, and Amuso, 2012; Heneman*et al*., 2000). Apart from that, Graham *et al*. (2012) also stated that as a firm matures and the novelty and excitement of assuming risk wear off for employees, cash compensation must increase to competitive market levels in order for the firm to retain employees.

Tangen (2015) stated that performance is another concept that is often confused with productivity. Whereas productivity is a fairly specific concept related to the ratio between output and input, performance is a broader concept that covers both the economic and operational aspects of an industry. Performance refers to excellence and includes profitability and productivity among other non-cost factors, such as quality, speed, delivery and flexibility. Performance refers to excellence and includes profitability and productivity among other non-cost factors, such as quality, speed, delivery and flexibility. In order to foster motivation within each team member on a project, the project manager must take time to understand how every individual is motivated. (Simpson *et al*. 2017).

Indicators are defined in order to check the feasibility of the company's strategy and the kinds of goals that should be used daily. Measurement enables increased visibility of the quality and progress of a particular task and helps to justify, manage and evaluate quality and productivity improvement programs at the operations level. The point has been made that proper measurement goals are those that focus as much on communication as on evaluation and targets (Haapasalo, Ingalsuo, and Lenkkeri, 2016).

Theoretical Review
Frederick Herzberg's Motivation-Hygiene Theory
Another researcher to enter into the affray of human motivation was Frederick Herzberg. Originally trained as a clinical psychologist, throughout Herzberg's métier, he switched focus and became one of the first scholars in the growing field of industrial psychology. The fundamental notion of Frederick Herzberg's Motivation-Hygiene Theory was that outdated viewpoints on motivation, like Maslow's, only looked at the other side of the coin-how to motivate people. Herzberg theorised that what eventually motivated individuals to work were not necessarily the same factors that led to demotivation at work. In Herzberg's worldview, motivation at work should lead to satisfied workers, but he theorised that fulfilment and frustration were not opposite ends of one sequence. As an alternative, Herzberg predicted that the factors that lead to optimistic job attitudes (and thus motivation) were different from the factors that lead to undesirable job attitudes (and thus demotivation). For his theory, he referred to the factors that led to positive job attitudes as motivators and those factors that led to negative job attitudes hygiene factors. The motivators are all centred on ideas that are somewhat similar to the esteem needs and self-actualisation needs of Abraham Maslow. On the other hand, the hygiene factors all examine the context of work.

Adams' Equity Theory
Adams' Equity Theory is named after John Stacey Adams, a workplace and behavioural psychologist, who developed his job motivation theory in 1963. John Stacey Adams' equity theory helps explain why pay and conditions alone do not determine motivation. It also explains why giving one person a promotion or pay-rise can have a demotivating effect on others. Much like many of the more prevalent theories of motivation, Adams' Equity Theory acknowledges that subtle and variable factors affect an employee's assessment and perception of their relationship with their work and their employer.

This theory proposesthat employees become demotivated, both about their job and their employer, if they feel as though their contributions are more significant than the yields. Employees can be projected to respond to this situation in diverse ways, including demotivation (generally to the extent the employee

perceives the disparity between the inputs and the outputs exist), abridged effort, becoming discontented, or, in more extreme cases, perhaps even disruptive.

Expectancy Theory

Victor Vroom presented one of the most widely accepted elucidations of motivation. Very simply, the expectancy theory articulates that an employee will be motivated to exert a high level of effort when he or she believes the following:

      a)   The effort will lead to a decent performance appraisal.

      b)   A good appraisal will lead to organisational rewards.

      c)   Organisational recompenses will gratify his or her personal goals

The key to expectancy theory is an understanding of an individual's goals and the relationships between effort and performance, between performance and rewards, and finally, between the rewards and personal goal fulfilment. When an employee has a high level of expectancy, and the reward is attractive, motivation is usually high.

Therefore, to motivate workers, managers must fortify workers' perceptions of their efforts as both achievable and valuable, simplify expectations of performances, link rewards to performances, and make sure that rewards are desirable.

Reinforcement Theory

The reinforcement theory examinesthe relationship between behaviour and its consequences. This theory, based on E. L. Thorndike's law of effect, focuses on modifying an employee's on-the-job behaviour through the clever use of one of the following four techniques:

      a)   *Positive reinforcement* rewards required behaviour. Positive reinforcement, such as a salary increase or promotion, is provided as a reward for positive behaviour to increase the probability that the desired behaviour will be continuous.

      b)   *Avoidance* is an endeavour to show an employee what the repercussions of improper behaviour will be. If an employee does not engage in improper behaviour, he or she will not experience the consequence.

      c)   *Extinction* is ignoring the behaviour of a subordinate and not providing either positive or negative reinforcement. Classroom teachers often use this technique when they ignore students who are "acting out" to get attention. This technique should only be adopted when the supervisor identifies the behaviour as temporary, not typical, and not severe.

      d)   *Punishment* (threats, docking pay, and suspension) is an attempt to decrease the likelihood of a behaviour repeating by applying negative consequences.

Goal-setting Theory

The goal-setting theory, introduced in the late 1960s by Edwin Locke, suggested that purposes of working toward a goal are a firm foundation of work motivation. Goals, in essence, convey to employees the achievable objectives and how much effort is required. In broad-spectrum, the more difficult the goal, the higher the level of performance expected.

Managers can set the goals for their employees, or employees and managers can develop goals together. One advantage of employees participating in goal setting is that they may be more likely to work toward a goal they helped develop.

No matter who sets the goal, employees do better when they get feedback on their progress. In addition to feedback, four other factors influence the goals-performance relationship:

      a)   The employee must be committed to the goal.

      b)   The employee must believe that he is capable of performing the task.

      c)   Tasks involved in achieving the goal should be simple, familiar, and independent.

      d)   The goal-setting theory is culture-bound and is popular in North American cultures.

If the goal-setting theory is adopted, managers need to work with their employees in determining goals in order to provide targets for motivation. Also, the established goals should be specific rather than general in nature, and managers must provide feedback on performance.

RESEARCH METHODOLOGY

The primary function of the research design was to explain how to find answers to the research questions. The research design sets out the specific details of the enquiry. A research design should include the study design per se and the logistical arrangements that it proposes to undertake, the measurement procedures, the sampling strategy, the frame of analysis and the time-frame (Kumar, 2011). Therefore, in this study, the descriptive survey design was adopted. The study aimed to assess the effects of resources on project success implementation in Rwanda. The study adopted a case study survey. Both quantitative and qualitative methods of data collection were used. This involves the collection of data from the respondents and analysing their responses with the relation to the topic and area of the study.

Study Population
The target population is defined as all the members of a hypothetical set of people, events, or objects, from whom or which the required information to find answers to the research questions is obtained (Kumar, 2011). The target population involved include three main parties, which are contractors, consultants and developers in Lagos State in Nigeria. The study population comprised 120 workers across all departments of the industries.

Detemination of Sample Size
Statistics is a means of looking at a population's behaviour by taking a sample. It is usually impossible to survey every member of a population because of money or time (Slovin, 1960). In this research study, the sample size is of 92 was selected from a population of 120 using Yaro Yamane's formula.

Data Analysis

Hypothesis I: To evaluate the extent to which leadership and recruitment account for changes in stakeholders' satisfaction

Table 1: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.678[a]	.459	.339	.45425

a. Predictors: (Constant), leadership, recruitment

The model summary table (table 1) above shows that both leadership and recruitment account for positive changes in stakeholders' satisfaction (R = 0.678). This implies that as recruitment and leadership are carried out effectively, they have a strong positive effect on stakeholders' satisfaction. The model further shows the extent to which leadership and recruitment account for variation in stakeholders' satisfaction. The coefficient of determination (R^2 = 0.459) shows that 45.9% of the change in stakeholders' satisfaction is accounted for by leadership and recruitment. This result is statistically significant because the p-value of the result (0.033) is less than the 0.050 level of significance used for the study which implies that there is a 0.033 probability of finding this sample regression -or a larger one- if the actual population regression is zero. The research hypothesis one is therefore accepted.

Table 2 indicates whether the regression model predicts the dependent variable significantly well. This indicates the statistical significance of the regression model that was run. Here, *p*-value (0.033), and indicates that, overall, the regression model statistically significantly predicts the outcome variable (i.e., it is a good fit for the data).

Table 2: ANOVA[a]

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	.041	1	.041	.045	.033[b]
	Residual	107.257	118	.924		
	Total	107.298	119			

a. Dependent variable: stakeholders satisfaction
b. Predictors: (Constant), leadership, recruitment

Hypothesis II: To determine the relationship between recruitment and stakeholders' satisfaction

The model summary table (table 3) above shows that recruitmenthas a weak positive relationship with stakeholders' satisfaction (R = 0.183); this implies that as human resources managers are making efforts to recruit the best personnel, it has a little effect on their satisfaction. The model further shows the extent to which relational crafting accounts for variation in job satisfaction. The coefficient of determination ($R^2 = 0.034$) shows that 3.40% of the change in stakeholders' satisfaction is accounted for by recruitment. This result is statistically significant because the p-value of the result (0.027) is less than the 0.050 level of significance used for the study, which implies that there is a 0.027 probability of finding this sample regression -or a larger one- if the actual population regression is zero. The research hypothesis two is, therefore accepted.

Table 3: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.183[a]	.034	.027	.51453

a. Predictors: (Constant), recruitment

CONCLUSION

This study provides empirical evidence by showing that human resources management is related to project success. Human resources characteristics, such as leadership and recruitment, are positively and significantly related to stakeholders' satisfaction when both recruitment and leadership is done simultaneously. In addition to this, the study also suggests that recruitment and job satisfaction may not be well experienced within the organisation if employees are carrying out a single aspect of human resources (i.e. leadership and recruitment).

Recommendations
This study, therefore, recommends that the organisation should create a flexible work environment to encourage its workforce to perform their duties diligently. However, this should be done with modalities so that the flexibility will not be abused by employees. Also, employees should put sound leadership training in place, persuasive enough to sweep in a large volume of good leaders into its employee database. The organisation should also improve their recruitment processes as it influences stakeholders' engagement and satisfaction.

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