EVALUATION OF THE EFFECTS OF MEASUREMENT ON EMPLOYEE ENGAGEMENT IN NIGERIAN NATIONAL PETROLEUM CORPORATION

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Abstract

This paper evaluates the effects of measurement on employee engagement in the Nigerian National Petroleum Corporation (NNPC). The survey research design was employed with a population of 6621 staff of NNPC as of April 2020. Both primary and secondary data were used; Questionnaire copies were shared among samples of 377 respondents from NNPC and other subsidiaries and divisions. Data analysis was conducted using mean, standard deviation and inferential statistics (ANOVA). Pearson's Product Moment Correlation Co-efficient was used to test the hypothesis with the help of SPSS version 20, which addresses the extent of the relationship between the variables under consideration. This study pointed out the performance management system notable; the measurement of performance. The findings showed that performance management has a statistically significant impact on employee engagement. Therefore, the study concludes that objective setting, measurement of performance have a significant and positive impact on employee engagement in Nigerian National Petroleum Corporation (NNPC). The researcher recommended that the organization should set clear and realistic objectives as well as provide the tools and resources needed to realize

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such objectives, and the Nigerian National Petroleum Corporation (NNPC) should measure staff performance both quarterly and annually to improve employee engagement.

Keywords: Performance Management, Employee Engagement, Nigerian National Petroleum Corporation (NNPC)

Introduction

Govender and Bussin (2020) view performance management as an interaction that builds a positive approach to organizational employee improvement by inspiring employee performance through personal competencies and cooperation. Performance management is likewise a cycle that includes multiple aggregate exercises that add to the feasible management of each engaged employee and team to achieve a competent, significant level of performance.

Aguinis and Burgi-Tian (2021) also described some of the unique essential parts of managing performance, as it manages the way of evaluating individual employee and team performance, tailoring the work role with an organizational approach, and regularly criticising the exercises. Performance management is a consistent cycle of estimating, generating, and investigating the performance of employees and groups, and tailoring the performance of workers to the essential goals of the organization (DeNisi & Murphy, 2017; Audenaert et al., 2016). However, emphasising employee engagement in the process of performance management may increase performance in the organization.

A particular organization's performance success and failure are determined by an organization that is competent and feasible in terms of its accessible resources, for example, people (employees), monetary, physical and data (Bakker, 2021). Among the four noted resources, the human resource (employee) is the main and essential chapter of all resources for the resilience of an organization. The performance of each organization starts with the effective engagement of each employee. Acharya and Anand (2020) opined that employee engagement emphasises the people's contribution under strong working conditions,

improves individual advancement, and promotes mutual self-assurance and understanding between the workers and employer and also among the workers themselves.

Awan et al. (2020) expressed that almost every organization is achieving some critical points related to employee engagement using a performance management framework. He further clarified that these destinations incorporate the arrangement of performing culture, encouraging employees to build their abilities, deciding on helpless entertainers, assessing workers' qualifications for their promotion and elimination, and helping to use business procedures. Consequently, recognizing the authoritative approach and achieving its goals is largely dependent on successful performance management and successful employee engagement (Bhat & Bharel, 2018).

Statement of the Problem

The desire for modern organizations to improve performance management systems underscores the significance of workers in an organization and their function in making any organization effective and efficient. Performance management has become relevant to an organization and it has increased pressure to achieve high performance levels and raised the bar for various work practices. Thus, productive performance management plays a key part in HR (Wei et al., 2019).

Despite the relevance of PMS on employee engagement, the absence of effective performance management to quantify employee performance and commitment levels in the company has become the main obstacle that confronts managers in all forms of organizations. Performance appraisal in this manner is essential to get the best from the engaged workers. Without a purposely coordinated work course of action, people will by and large make decisions about the work performance of others, including their subordinates regularly, arbitrarily and deliberately (Dipboye, 2018). Individuals' views to settle on choices without a coordinated work system can turn out to be genuine, enticing, good and lawful issues in the workplace. Without convincing performance management, the likelihood of guaranteeing

that the choices caused will be legitimate, sensible, sound and exact is insignificant (Sonnentag, S. 2017).

Also, a low level of leadership commitment is another obstacle to the performance management system. A commitment to leadership and assistance is a must for the smooth execution of PMS. Leaders must drive the procedure to make performance management an inherent portion of the administration of the organization to efficiently engage workers. As noted by Armstrong (2018), leaders play a complex role in advancing the company's procedures and policies which can guarantee huge performance in the company. Thus, while executing the Performance Management System, leaders are responsible for timely and guiding employees on why PMS is needed in the organization and why each engaged employee will make the organization grow.

More so, poor communication of performance management policy systems within the organization affects effective employee' engagement. Performance management is a continuous conversation process between line managers, employees and management teams aimed to improve employees' engagement and organizational efficiency (Armstrong, M., 2017). If employees, line managers and management teams do not have quality lines of communication with one another, the loyalty and engagement to the organization may suffer. Hence effective communication of performance management policy systems through information technology will help to improve employee engagement. For example, the performance management policy system could be uploaded to the staff portal of the organization and refer employees to the document via email notification (Sales, 2019). Considering these problems, the paper intends to examine the impacts of performance management on employee engagement in the Nigerian National Petroleum Corporation (NNPC).

Objectives of the study

The main purpose of this paper is to examine the impact of performance management on employee engagement in the Nigerian National Petroleum Corporation (NNPC). The specific objectives of the study include:

i. To determine the effect of objective setting on employee engagement in Nigerian National Petroleum Corporation?
ii. To evaluate the effect of measurement of performance on employee engagement in the Nigerian National Petroleum Corporation

Research Questions

The work is supported by the following study questions:

i. What is the effect of objective setting on employee engagement in Nigerian National Petroleum Corporation?
ii. What is the effect of measurement of performance on employee engagement in Nigerian National Petroleum Corporation?

Research Hypotheses

The null hypotheses are characteristic arithmetic theories and were developed by asking a question, and then rephrasing that question in a form that assumes no relationship between the variables. Simply, suggesting an idea that an action or behaviour has no consequence. The work is guided by the following null hypotheses.

H1: The effect of objective setting on employee engagement in Nigerian National Petroleum Corporation

H2: Measurement of performance does not have a significant relationship with employee engagement in Nigerian National Petroleum Corporation.

Literature Review

Conceptual Review

The conceptual structure is an attempt to develop the relationship between the independent variable and the dependent variable. The independent variable is the Performance Management System (objective setting, measurement of performance), while the dependent variable is Employee Engagement as appeared in Figure 1 below.

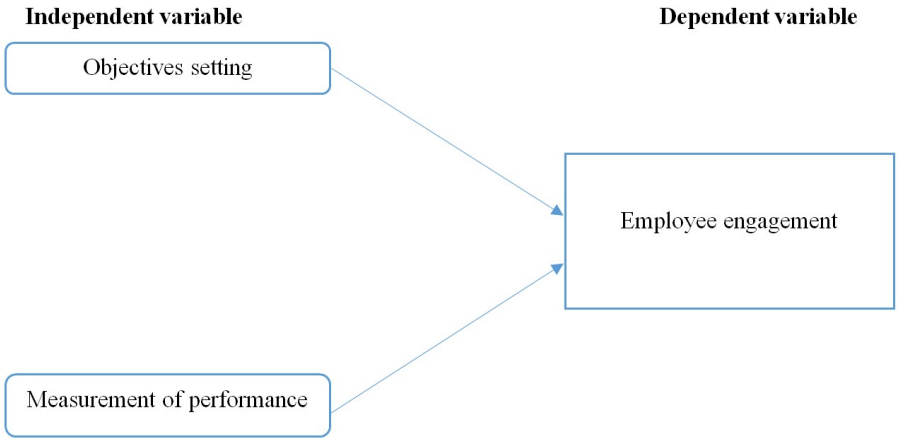


Figure 1. *Source: Isa Ismaila performance measurement and productivity 2021*

Concept of Performance Management System (PMS)

Conceptually speaking, there is no generally acceptable definition of performance (Amos et al., 2021). This resulted in different definitions of performance from various studies. Tamba & Riyanto (2020) see performance as associated with quantity and quality of productivity, nature of effectiveness, and appearance of the efficacy and accomplished work. Fitriati et al. (2020) note that different components of the performance of employees such as duties designed for performance, attendance of work and organization could serve as an assessment instrument.

This definition depicts performance management as a strategy that aligns individual goals with the goal of the organization and hence urges individuals to keep up with organizational values. This definition is additionally lined up with the view of Shawyun (2021) who notes that performance management is a pattern of building a typical viewpoint on what is to be attained and how it is to be attained as well as methods to oversee people who can expand the possibility of attaining progress. These two definitions are aligned with the general goal of performance management which is to enhance both individual and organizational

performance.

Components of the performance management system **(**Objectives Setting)

The significance of the objective is appropriately described by Carmo et al. (2021) as managing the strategy to follow who wins. The manager's concern is to put resources together to accomplish the company's objectives and also allow workers to portray their objectives in line with the organization's success. The goal and target settings, identification of training goals, the improvement of individual professional plans, and talent direction are performance management practices that supplement each other as frameworks to help workers to attain their career and performance objectives (Carmo et al., 2021). Performance management systems can incorporate the activity of characterizing performance efforts for workers in the position they are presently holding (Welsh et al., 2020). Moreover, performance management systems are an essential instrument to explain areas in which workers require training to assist them in attaining their performance objectives (Gardner & Cooper-Thomas, 2021).

Measurement of performance

Maham et al. (2021) express worker performance as a series of workforce attitudes that could be evaluated, gauged and examined on the individual level. Also, they see employee performance as an achievement that can be assessed and measured. Henderson & Horan (2021) portray that performance could be measured by different mixtures of time, cost, quality; and quantity. Originally, the performance of the employee is what a worker does or does not do. According to Chen & Khuangga (2021), performance is associated with quality, quantity and timeless productivity in the organization. The measurement of performance in the view of the organization is formally narrated as the extent to which the organization measure the rate or performance score of employees in relation to his/her contribution to the realization of the stated goal.

Type of Performance Management System (Management by Objectives)
According to Eissa & El-Nahas (2021) Management by Objectives (MBO), is a management technique that adopts the S.M.A.R.T. objectives technique which is 'setting goals' that are specific, attainable, measurable, time-based and realistic. Practically, this research supports Management by Objectives at the team level. It displays that, when team members are engaged in their objectives, both productivity and job satisfaction of team members could be developed. Team strength and collective designing seem partially to control this impact on work satisfaction. This signifies that management by objective could be an efficient instrument for toping self-regulating groups

Self-Appraisal Employs
As noted by Moore et al. (2020), when conducting self-appraisal, organizations/employees should recognize their strengths and weaknesses. They should brainstorm a list of skills or tasks and efforts they mostly enjoy. Then take a trusting look at specific areas where they can develop. Development areas should comprise toping projects or even developing processes, skills of time management and speaking in front of the team. Considering feedback received by the organization/employee think about other areas where the organization/employee struggled or felt to have done well.

The Concept of Employee Engagement
Shenoy et al. (2020) see employee engagement as the science and art of committing people in recognized and authentic association to roles, strategy, organization, performance, customers, relationships, community, development, and energy that change job connections into results. Whereas Men et al. (2020) clarify that employee engagement is that who is completely vigorous and connected emotionally with the company in attaining the objective. Austin and Gregory (2020) narrated that employee engagement is about having commitment psychology toward the assigned work, which is vividly reflected in his/her commitment to the job.

Engaged Employees: this is considered the foundation of organizational improvement. Such kinds of workers have a positive direction on organizations. They are not only doing their job but also performing a significant role in attaining the objectives and goals of an organization. Engaged employees would like to utilize their skills and effort at work every day. They operate with drive, innovation, and passion and promote an organization through their performance

Not Engaged: this type of worker's emphasis is only on their job and not on any other things such as improvement, objectives and goals of the organization. They lack enthusiasm and energy in their job. These types of employees do not have collaborative connections with their colleagues and employers. Their impact is small on the development and success of the organization

Actively Disengaged: these workers do not appropriately do their job and do not promptly complete their job. Their impact is mostly negligible in the development and success of the company. They are dissatisfied with the job and depend on the work of other staff of the company. Such a category of workers carries the company in a negative direction leading to the inability of the company to attain its objectives and goals.

Empirical Review

This study provides the following empirical evidence to support the topic under study:

Mamatha and Prasad (2017) studied a mission to discover the relationship between performance appraisal and employee progress. The study is referenced as Agricultural Research Sector Employees Using Multinomial Logistic Regression. The findings revealed that employee improvement has a positive relationship with employee maintenance. In the study, they recommended that companies should direct research on how employees see the performance appraisal framework and what it means for their attitudes and behavioural

improvement.

DeNisi and Murphy (2017) described performance management as an interaction within an organization by deliberately defining the organization's goals, procedures, and strategies at all levels and estimating goals using basic outcome variables and performance indicators.

Agyare et al. (2016) opined that Performance Management helps organizations make better use of their employees' capabilities and increase the required compatibility between the various components of the organization and the standard goals in these hierarchical performance improvement lines.

Pradhan et al. (2017) describe performance management as an empowering agent to achieve hierarchical goals and objectives that require different periods of the performance management system to enable employees and organizations to consistently improve results. It requires that power management cannot function as an interaction at the start and the end; rather, power control is perceived and functions as a continuous cycle, with each area addressing a significant incentive for the next area to operate viably.

Demartini and Trucco (2017), studied the strategic use of performance management systems and their impact on employee performance in health care. The methodology used was a descriptive survey and data was analyzed using linear regression techniques. The result shows that PMS has a direct and significant positive impact on employee performance in terms of the improved process when used in health care and it significantly and positively affects perceived managerial discretion

Gap Identified in Literature

The most intense gap in the previous similar topics has described what is known about performance management and employee engagement. The present research will explore the effect of performance management on employee engagement in Nigeria National Petroleum Corporation. This research is important because it explains how relevant objective setting and measurement of performance (which

formed components of the performance management system) as it affect employees' engagement in NNPC.

Methodology

Research Design

This research used the survey research design. It allows the study to assess the thoughts, opinions, and feelings of respondents through a structured closed-ended questionnaire (Kramer, 2020). The design enables the utilization of descriptive statistics to address the relationship of variables. The purpose is to predict the effect of the performance management system on employee engagement in the Nigerian National Petroleum Corporation (NNPC).

Population and Sample Size

The study populace contains the workers of NNPC in Nigeria. Considering the population of NNPC, the organization stated that it has 6,621 staff, both at its headquarters and across other locations, subsidiaries, service units and divisions in Nigeria. As stated in Vanguard, Monday, May 25, 2020, the population of NNPC staff strength as of April 20, 2020, in Nigeria was estimated to be 6,621 employees (Vanguard, 2020).

Table 3.2. *NNPC Staff Population by Divisions and Business Units.*

S/N	Subsidiary Divisions/Strategic Business Units	Staff Population	%
1	Corporate Headquarters	1,801	27.2
2	Nigerian Pipelines and Storage Company (NPSC)	861	13
3	Kaduna Refining and Petrochemical Company (KRPC)	758	11.5
4	Port Harcourt Refining Company (PHRC)	655	9.9
5	Nigerian Petroleum Development Company (NPDC)	550	8.3
6	Warri Refining and Petrochemical	485	7.3

	Company (WRPC)		
7	National Petroleum Investment Management Services (NAPIMS)	426	6.43
8	Petroleum Products Marketing Company (PPMC)	255	3.9
9	Nigerian Gas Company (NGC)	254	3.8
10	Integrated Data Services Limited	175	2.6
11	Crude Oil Marketing Division	152	2.3
12	National Engineering and Technical Company Limited (NETCO)	64	0.97
13	Nigerian Gas Marketing Company (NGMC)	185	2.8
		6621	100

Source: NNPC Divisions/Strategic Business Units Report 2020 (www.vanguardngr.com/2020/05/nnpc-subsidiaries-have-6621-staff-nationwide).

To obtain sample size from the population, Taro Yamane (Yamane, 1973) formula was used.

The formula is as follows:

$$n = N/\ 1+ N\ (e)^2$$

So,

n = sample size

N = a population size

e = precision level (A 5% precision level or 95% level of confidence, was assumed)

1 = unchanged

The below variables were adopted in evaluating the sample size:

Confidence interval = 95 %

e = Margin of error = 0.05

Substituting into the Yamane's formula,

$$n = \frac{6621}{1+6621(0.05)^2} \tag{3.1}$$

$$n = \frac{6621}{1 + 6621(0.0025)}$$

$$n = \frac{6621}{1 + 16.55}$$
$$n = \frac{6621}{17.55}$$
$$n = 377.27$$
N= 377

Sources and Methods of Data Collection

The information adopted for this study is primary data. A structured survey questionnaire was administered to the staff of Nigerian National Petroleum Corporation to respond to the impact of performance management on employee engagement in Nigerian National Petroleum Corporation. The close-ended questions of the modified Likert five-point rating scale were adopted for the study. The response format ranged from "strongly agree" (5) to "strongly disagree" (1).

Validity exists if the instruments measure what they ought to evaluate. A pilot study was done to refine the study by engaging the respondents to answer the questions accurately and to have a smooth data recording (Saunders et al., 2016). For face validity, senior staff academics in the Business Administration Department were moved nearer to assess the survey for comments on the suitability and completeness of the questionnaire. Both dependent and independent variables in the question statements were reconstructed and erased to address a sole variable. Similarly, questions that are recognized as too long were rephrased and simple vocabularies were adopted to simplify the questions for reasonable understanding (Saunders et al., 2016).

Reliability is focused on accuracy and precision. It is the extent to which a tool evaluates the same way each time it is utilized under similar situations with the same subjects. For a reliable research instrument, respondents should yield the same results. To cut it short, it is the repeatability of measurement. In this study, the researcher adopted Cronbach's alpha (α) to test the reliability of the research instruments, which simplifies the degree to which a set of test items can be treated as measuring a sole latent variable (Bujang et al., 2018). The 0.70 recommended value was utilized. Cronbach's alpha in an overall

form of the Kunder-Richardson (K-R) formulas which was adopted to access the internal consistency of an instrument based on split-half reliabilities of data from any reasonable halves of the instrument. It further minimizes the time needed to calculate a reliability coefficient in other techniques (Taber, 2018).

The Kunder-Richardson (K-R) is founded on the following formula:

$$KR = \frac{(K)(S^2) - \sum s^2}{S - (K-1)} \tag{3.2}$$

KR =Reliability coefficient of internal consistency

K =Number of items used to measure the concept

S^2 =Variance of all scores

s^2 =Variance of individual items

However, the Likert-type scale was utilized in Cronbach's alpha calculations. The 5-level Likert scale comprised of marks allocated as 5 = Strongly Agreed (SA), 4 = Agreed (A) 3 = Undecided (U), 2 = Disagreed (D); and 1 = Strongly Disagreed (SD). This is presented in Table 4.2

Method of Data Analysis

The study conducts an analysis of data in two stages, notably, descriptive statistics and inferential analysis. The descriptive statistics analysis which is the first stage will be computed by utilizing distribution tables of mean, percentage and standard deviation. This kind of analysis depicts insight into the mode of responses by the participants as it relates to the variables of the study. The perception of the participants on performance management systems and employee engagement will be provided. The research hypotheses will be analysed with the help of correlation and linear regression; further support with the help of ANOVA and the Statistical Package for Social Sciences (SPSS) *version 20.* Hence the data from any survey collected can be exported to SPSS for detailed analysis (Hair et al., 2016).

Model Specification

The model used in establishing the relationship between the variables is as follows:

$$Y = f(X_1, X_2, X_3, X_4, X_5) \quad (1)$$

The econometric model is given as the following:

$$Y = \alpha 0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \mu i \text{ equation } (2)$$

Y= Dependent variable.

X_1-X_5= independent variables

Where,

Y = Employee Engagement.

X_1 = Objective setting.

X_2 = Amendment of Objective.

X_3 = Feedback Result.

X_4 = Reward System.

X_5 = Measurement of Performance.

α = Intercept (mediating variable: Leadership/Management Style).

B_1 – β_5 = slopes of the independent variables (Performance Management System).

μi = Random error.

Result and Discussion

Result

This section captures data collation, analysis, results and interpretation based on the questionnaires administered in relation to the research objectives, research questions and the hypotheses postulated. The section comprises two subsections analysis an overview of data collection (demographic of respondents), descriptive statistics and testing of hypothesis. However, three hundred and seventy-seven (377) questionnaires were electronically sent to the staff of the Nigerian National Petroleum Corporation (NNPC). Three hundred and fifty-eight (358) questionnaires were duly returned representing about 94.96% while nineteen (19) questionnaires indicating 5.04% were not retrieved. The adequacy of this response rate is justified by Kothari C.R. (2019) who noted that a response rate of 50% is adequate for reporting and analysis; a 60% rate is good and a response rate of 70% and over is excellent; hence this rate of response was adequate for analysis. Therefore, analysis was done based on 358 response rates.

Overview of Data Collection

Table 4.1. *Demographic Characteristics of Respondents.*

Variable Name	**Group**	**Frequency**	**Percentage (%)**
Gender:	Male	253	70.7
	Female	105	29.3
	Total	358	100.0
Age:	Less than Thirty yrs	95	26.5
	Thirty-one to Forty years	99	27.7
	Forty-one to fifty years	115	32.1
	Fifty-one and above	49	13.7
	Total	358	100
Marital Status:	Married	278	77.7
	Single	71	19.8
	Divorced/Separated	9	2.5
Year of Experience:	Less than ten years	44	12.3
	Between 10 and 15 yrs	151	42.2
	Between 16 and 20 yrs	108	30.2
	Between 21 and 28 yrs	25	7.0
	29 years and above	30	8.3
	Total	358	100.0
Level of Education:	Secondary	11	3.1
	Post – Secondary	22	6.2
	University	249	69.5
	Other	76	21.2

	Total	358	100.0
Cadre	Junior	30	8.3
	Senior	268	74.9
	Management	60	16.8
	Total	358	100.0

Source: Field Survey, 2020

Table 4.1 above depicts that out of 358 respondents sampled for this research, 253 (70.7%) of the respondents were male while 105 (29.3%) were female. This signifies male respondents were the majority sampled for this study. Also, the table reveals that out of 358 respondents sampled for this study, 95 (26.5%) of the respondents were less than thirty years of age, 99 (27.7%) of them were between thirty-one and forty years, 115 (32.1%) respondents were between forty-one and fifty years. Fifty-one years and above respondents were 49 (13.7%). This implies that many of the respondents sampled for this work were between forty-one and fifty years of age.

More so, on marital status, the table signifies that out of 358 respondents sampled for this study, 278 (77.7%) of the respondents were married, 71 (19.8%) were single, and 9 (2.5%) were divorced. This shows that the majority of the respondents sampled for this study were married. It was furthermore, reveals the year of experience that out of 358 respondents sampled for this study, 44 (12.3%) of the respondents were less than one-year experience, 151 (42.2%) of respondents had between two and six years of working experience, 108 (30.2%) respondents were between seven and eleven years working experience, 25 (7.0%) of respondents were between twelve and sixteen years working experience, while 30 (8.3%) respondents were workers with seventeen years and above working experience. This implies that the majority of the respondents sampled were between ten to fifteen years of working experience.

Moreover, on the level of education, the table shows that out of 358 respondents sampled for this study, 11 (3.1%) have a secondary school certificate, 22 (6.2%) held a post-secondary school certificate, 249

(69.5%) were university degree holders, while 76 (21.2%) were those with post-graduate qualification. This shows that the majority of the respondents sampled were university degree holders. Finally, on the cadre of respondents, table 4.1 shows that out of 358 respondents sampled for this study, 30 (8.3%) of the respondents were in the junior cadre, 268 (74.9%) were in the senior cadre, while 60 (16.8%) were in the management level. This shows that the majority of the respondents sampled for this study were senior cadres.

Descriptive Statistics

The study raised five research questions which were answered using mean and standard deviation. In answering these research questions, the questionnaire items were structured on a five-Likert scale response type, with items whose mean scores were close to 5 = Strongly Agreed (SA), 4 = Agreed (A) 3 = Undecided (U), 2 = Disagreed (D); and 1 = Strongly Disagreed (SD) respectively. However, responses on both strongly agree and agree were blended as agreed, while disagree, and strongly disagree were blended as disagree, since 5 + 4 + 3 + 2 +1 = 15, this 15/5 = 3. Thus, the grand mean item greater than 3 is remarked as Agreed, while grand mean items less than 3 are remarked as Disagreed.

Research Question I: Is there any influence of objectives setting on employees' engagement in the Nigerian National Petroleum Corporation (NNPC)?

Table 4.2. *Descriptive Statistics in the Influence of Objectives Setting on Employees' Engagement in the NNPC.*

Objectives Settings on Employees' Engagement	**Mean**	**Std. D**
Based on objectives set, different units hold their performance meeting	4.15	.76
Having set the objectives, employees are encouraged to focus on relevant areas	4.05	1.04
Employees engaged their workforce in alignment with their goals and objectives	3.98	.75
When setting objectives, the Organization attempts to include employees to have a sense of togetherness with management	3.77	.75
Grand Mean	3.99	1.67
Remark:	Agreed	

Source: Field Survey, 2020

In Table 4.2, different questions were raised on the influence of objectives setting on employees' engagement in the NNPC. The mean of 4.15 signifies that based on the objectives set, different units hold their performance meeting, 4.05 mean value indicates that having set the objectives, employees are encouraged to focus on relevant areas. Also accepted mean of 3.98 indicated that employees engaged their workforce in alignment with their goals and objectives. The agreed mean of 3.77 signifies that when setting objectives, the Organization's attempts to include employees to have a sense of togetherness with management. Therefore, all the statements on the influence of objectives setting on employees' engagement were agreed upon given the grand mean score 3.99. Thus, there is an influence of objectives setting on employees' engagement in the Nigerian National Petroleum Corporation (NNPC).

Research Question II: What is the impact of measurement of performance on employees' engagement in the Nigerian National Petroleum Corporation (NNPC)?

Table 4.3. *Descriptive Statistics of Impact of Measurement of Performance on Employees' Engagement in the NNPC.*

Impact of Performance Measurement on Employee Engagement	**Mean**	**Std. D.**
The measurement of performance has improved communication between the management and the employees	3.58	.619
Performance ratings on the employee are done periodically in my organization	2.29	.81
Measurement of performance assist to know the strength and weakness of the worker	3.19	.77
Through performance measurement, the chances of opportunity for promotion are available	3.87	1.37
Grand Mean	3.23	2.36
Remark:	Agreed	

Source: Field Survey, 2020

In Table 4.3 above, the mean value 3.58 shows that the measurement of performance has improved communication between the management and the employees. 2.29 mean value indicates that performance ratings on the employee are done periodically in my organization, the mean 3.19 signifies that measurement of performance assists to know the strengths and weaknesses of the worker while the 3.87 mean indicates that the chances of opportunity for promotion are available through performance measurement. Hence, all the statements on the impact of performance measurement on employees' engagement were agreed upon given the grand mean score 3.23. Thus, there is a great impact of performance on employees' engagement in the Nigerian National Petroleum Corporation (NNPC).

Research Hypotheses

Pearson Product Moment Correlation (PPMC) and regression analyses at 0.05 level of significance were used to test the hypotheses formulated in the study.

Hypothesis One: *There is no significant effect of objectives setting on employees' engagement in the Nigerian National Petroleum Corporation (NNPC).*

Table 4.4. *Summary of Pearson Product Moment Correlation (PPMC) between Influence of Objectives Setting and Employee's Engagement in NNPC.*

Variables		**Objectives Setting**	**Employees' Engagement**
Objectives Setting	Pearson Correlation	1	.692
	Sig. (2-tailed)		.000
	N	358	358
Employees' Engagement	Pearson Correlation	.692	1
	Sig. (2-tailed)	.000	
	N	358	358

Significance at $p<0.05$

Table 4.4 shows the Pearson 'r' 0.692 gotten with a p-value of.000 computed at 0.05 alpha level. Since the p-value of.000 is less than 0.05 level of significance, the null hypothesis is not retained. Therefore, there is a statistically significant effect of objectives setting on employees' engagement in the Nigerian National Petroleum Corporation (NNPC) (Pearson $_{\{358\}}$ =.692, $p<0.05$). Thus, the objectives setting had a positive effect on employees' engagement in the Nigerian National Petroleum Corporation (NNPC).

Table 4.5. *ANOVA[a].*

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	561018.137	3	187006.046	827.508	.000[b]
	Residual	77965.393	345	225.987		
	Total	638983.530	348			

a. Dependent Variable: objectives setting
b. predictor: employees' engagement

Table 4.5 presents the analysis of variance (ANOVA) for the model. F-statistic is shown with a value of 827.508 and probability value of 0.000 indicating the reported F-statistic is significant. This implies that the overall model is significant. In other words, objectives setting has a significant impact on employees' engagement in the Nigerian National Petroleum Corporation (NNPC).

Hypothesis Two: *There is no impact of measurement of performance on employees' engagement in the Nigerian National Petroleum Corporation (NNPC).*

Table 4.6. *Summary of Pearson Product Moment Correlation (PPMC) between the effect of feedback Results on Employee Engagement in NNPC.*

Variables		Employees' Engagement	Measurement of Performance
Employees' Engagement	Pearson Correlation	1	.339
	Sig. (2-tailed)		.000
	N	358	358
Measurem	Pearson	.519	1

ent of	Correlation		
Performan	Sig. (2-tailed)	.000	
ce	N	358	358

*Significance at p<0.05

Table 4.6 shows the Pearson 'r'.339 obtained with a p-value of.000 computed at 0.05 alpha level. Since the p-value of.000 is less than 0.05 level of significance, the null hypothesis five is not retained. Therefore, there is a statistically significant influence of measurement of performance on employees' engagement in the Nigerian National Petroleum Corporation (NNPC) (Pearson $_{\{358\}}$ = 339.0., p<0.05). Hence, the measurement of performance positively (0.339) impacted employees' engagement in the Nigerian National Petroleum Corporation (NNPC).

Table 4.7. *Regression Model Summary of Performance Management on Employees' Engagement in the Nigerian National Petroleum Corporation (NNPC).*

Model	**R**	**R Square**	**Adjusted R Square**	**Std. Error of the Estimate**
1	0.56	0.314	0.305	8.446

a. Predictors: (constant), Performance Management

Table 4.7 shows the contribution of the independent variables (performance management practices), r-square was calculated. As shown in Table 4.7, the performance management (objectives setting, amendment objectives, feedback, reward and performance measurement) jointly contributed R-Square of 0.314, representing 3.1% to the dependent variable (employees' engagement). Thus, the total variance in employees' engagement was accounted for by the combination of independent variables. This implies that performance management (i.e. objectives setting, amendment objectives, feedback, reward and performance measurement) jointly explained 3.1% of the total variance in employees' engagement in the Nigerian National

Petroleum Corporation (NNPC).

Table 4.8. *Multiple Regression Analysis of the Effect of Performance Management on Employees' Engagement in Nigerian National Petroleum Corporation (NNPC).*

Model	Sum of Squares	Df	Mean Squares	F-value	Sig.
Regression	436.712	5	87.342		
Residual	7071.115	386	18.319	4.768	0.000[b]
Total	7507.827	391			

a. Dependent variable: Employees' engagement
b. Predictors: (constant), Performance Management

The model in Table 4.8 indicates the linear combination of predictor variables i.e. performance management practices (objectives setting, amendment objectives, feedback, reward system and performance measurement). The F-value is 4.768 with 5 and 386 degrees of freedom 0.05 level of significance. For the fact that the p-value of 0.000 is less than 0.05 level of significance, the main null hypothesis is rejected. Therefore, the combination of the independent variables significantly influences the dependent variable ($p<0.05$). Thus, performance management (objectives setting, amendment objectives, feedback, reward and performance measurement) significantly affected employees' engagement in the Nigerian National Petroleum Corporation (NNPC).

Discussion of Findings

The outcome of the analysis of the research question, research objective; and hypotheses respectively, indicated that objective setting has a significant association with employee engagement. The research question, objective and hypotheses, in the findings indicated that measurement of performance has a significant impact on employee engagement in Nigeria National Petroleum Corporation (NNPC) as agreed above in tables 4.7 and 4.8. This finding is in accordance with Gibson et al. (2019) who explained the performance of employee measurement as a set of workforce behaviours that could be examined

and evaluated with the achievement on an individual level.

Conclusion and Recommendation

This study discussed the impact of the performance management system on employee engagement at Nigerian National Petroleum Corporation. The study's conclusion revolves around performance management systems and performance measurement on employee engagement. On the impact of performance measurement on employee engagement in the objective, research question and hypothesis, the study concludes that effects of Performance Measurement were seen as significant in organizations where the objectives were carefully identified and a logical link to the whole of performance measurement system. This is in line with the work of Ababneh (2021); who stated that Performance measurements are qualitative or quantitative in ways to define and characterize performance. They offer an instrument for organizations to monitor development towards defining core indicators of organizational performance, Customer satisfaction and attaining predetermined objectives.

Based on the above findings, it is finally concluded that a performance management system has a significant and positive impact on employee engagement. This is because objective setting, amendment of objective, feedback result, reward framework and measurement of performance which are the portions of performance management were recognized to have a positive connection with the worker engagement in Nigerian National Petroleum Corporation (NNPC).

Considering the discoveries of the above findings, the investigation consequently proposes the following recommendations:

i. Organizations should set clear and realistic objectives as well as provide the tools and resources needed to realize such objectives. Thus, the realistic objective setting shows employees what they need to focus on and helps them to set priorities and well engage in their tasks.
ii. The Nigerian National Petroleum Corporation (NNPC) should measure staff performance annually or quarterly to help improve

employee engagement. Measuring employee performance is important because it provides the employee with the strength to properly enhance work efficiency, identifies hard-working staff among all and who is not and enables the poor rated employee to address their area of weakness.

Reference

Abbasi, A. N., & Chishty, U. G. (2020). Performance Management and Employee Productivity: A Study on the Banking Sector of Pakistan. *Reviews of Management Sciences*, *1* (1), 1-16.

Abane, J. A., & Brenya, E. (2021). The relationship between organizational environment antecedents and performance management in local government: evidence from Ghana. *Future Business Journal*, *7* (1), 1-17. https://doi.org/10.1186/s43093-020-00049-2.

Al-Qudah, S., Obeidat, A. M., Shrouf, H., & Abusweilem, M. A. (2020). The impact of strategic human resources planning on the organizational performance of public shareholding companies in Jordan. *Problems and Perspectives in Management*, 18 (1), 219-230.

Armstrong, M. (2017). Armstrong on reinventing performance management: Building a culture of continuous improvement. Kogan Page Publishers

Armstrong, M. (2018). *Armstrong's handbook of reward management practice*. Kogan Page Publishers.

Amos, D., Au-Yong, C. P., & Musa, Z. N. (2021). A Literature Review on Performance Measurement. *Measurement of Facilities Management Performance in Ghana's Public Hospitals*, 21-34. https://doi.org/10.1007/978-981-33-4332-0_3.

Austin, Z., & Gregory, P. (2020). Understanding psychological engagement and flow in community pharmacy practice. *Research in Social and Administrative Pharmacy*, *16* (4), 488-496. https://doi.org/10.1016/j.sapharm.2019.06.013.

Awan, S. H., Nazia H., Chaudhry S. A., and Shaheryar N. (2020). Effectiveness of Performance Management System for Employee Performance through Engagement. SAGE Open 10: 2158244020969383.

Carmo, E. C. D., Renfree, A., Vieira, C. Y. N., Ferreira, D. D. S., Truffi, G. A., & Barroso, R. (2021). Effects of different goal orientations and virtual opponent's performance level on pacing strategy and performance in cycling time trials. *European Journal of Sport Science*, 1-17.

Chen, L. F., & Khuangga, D. L. (2021). Configurational paths of employee reactions to corporate social responsibility: An organizational justice perspective. *Corporate Social Responsibility and Environmental Management*, *28* (1), 389-403.

Clack, L. (2021). Employee Engagement: Keys to Organizational Success. https://link.springer.com/content/pdf/10.1007/978-3-030-30025-8_77.pdf.

Demartini, C., & Trucco S. (2017). Are performance measurement systems useful? Perceptions from health care. *BBC health service research*, *17* (1), p. 96.

DeNisi, A. S., & Murphy, K. R. (2017). Performance Appraisal & Performance Management: 100 Years of Progress? Journal of Applied Psychology, 102 (3), 421-433.

Eissa, H. T., & El-Nahas, A. N. (2021). A Proposed Model for Measuring the Performance of Smart Cities in Egypt. *ERJ. Engineering Research Journal*, *44* (1), 51-71.

Idemobi, E Ngige, C. D & Ofili. P. N (2017). Relationship between organization reward system and worker's attitude to work. *Journal of Business and Economic Development*, *2* (4), 247-254.

Fapohunda, T. (2021). Greening the Compensation Design and Management of the Human Resource Function. https://www.igi-global.com/chapter/greening-the-compensation-design-and-management-of-the-human-resource-function/262778.

Fitriati, T., Purwana, D., & Buchdadi, A. (2020). The role of innovation in improving small medium enterprise (SME) performance.

International Journal of Innovation, Creativity and Change Volume 11, Issue 2, 2020.

Gibson, C. B., Birkinshaw, J., McDaniel Sumpter, D., & Ambos, T. (2019). The hierarchical erosion effect: A new perspective on perceptual differences and business performance. *Journal of Management Studies*, *56* (8), 1713-1747.

Govender, M., & Bussin, M. H. (2020). Performance management and employee engagement: A South African perspective. *SA Journal of Human Resource Management*, *18* (1), 1-19. https://doi.org/10.4102/sajhrm.v18i0.1215

Gronseth, S. L., & Hutchins, H. M. (2020). Flexibility in formal workplace learning: Technology applications for engagement through the lens of Universal Design for Learning. *TechTrends*, *64* (2), 211-218. https://doi.org/10.1007/s11528-019-00455-6

Hair, Josept F; Celsi, M., Arthur, S. P. & Page, M. (2016). "The Essentials of Business" Method. Edition 3rd Research Bookshelf. 2. http://digitalcommons.kennesaw.edu/facbooks2016/2.

Khan, N, Waqas, H and Muneer, R. (2017). Impact of Rewards (Intrinsic and extrinsic) on Employee Performance: With Special Reference to Courier Companies of City Faisalabad, Pakistan. *International Journal of Management Excellence*, *8* (2), 937- 945.

Markos, S. (2020). Employee Engagement: The Key to Improving Performance. *International Journal of Business and Management*, 90-99.

Mamatha, Ch., & Prasad, K. D. V. (2017). Employee Performance a Function of Social Support and Coping: A Case Study with Reference to Agricultural Research Sector Employees Using Multinomial Logistic Regression. *IOSR Journal of Business and Management*, *19* (7), 12-21

Manville, G., & Greatbanks, R. (2020). Performance management in hybrid organisations: A study in social housing. *European Management Journal*, *38* (3), 533-545. https://doi.org/10.1016/j.emj.2020.04.006

Men, L. R., O'Neil, J., & Ewing, M. (2020). Examining the effects of internal social media usage on employee engagement. *Public*

Relations Review, *46* (2), 101880. https://doi.org/10.1016/j.pubrev.2020.101880

Moore, S. J., Durst, P. T., Ritter, C., Nobrega, D., & Barkema, H. W. (2020). Effects of employer management on Employee recruitment, satisfaction, engagement, and retention on large US dairy farms. *Journal of Dairy Science*, *103* (9), 8482-8493. https://doi.org/10.3168/jds.2019-18025

Otieno, B. B. A., Waiganjo, E. W., & Njeru, A. (2016). Effect of Employee Engagement on Organisation Performance in Kenya's Horticultural Sector. *International Journal of Business Administration*, *6* (2), 77-85.

Othman, R., & Mahmoud, M. A. T. (2020). Performance Management System of Jordanian Public Sector Organizations: Greater Amman Municipality's (GAM) Experience. *International Journal of Human Resource Studies*, *10* (2), 308329-308329.

Pradhan, R. K. and Jena, L. K., (2017). Employee performance at workplace: Conceptual model and empirical validation. *Business Perspectives and Research*, *5* (1), pp. 69-85.

Rohman, A. F., Indiyati, D., & Ghina, A. (2021). The Influence of Organizational Culture and Employee Engagement on Employees Performance at Telkom University, Indonesia. *International Journal of Science and Society*, *3* (1), 75-88. https://doi.org/10.200609/ijsoc.v3i1.268

Sales, X. (2019). A proposed methodology for evaluating the quality of performance management systems. *Pacific Accounting Review*, *31* (3), 376-393.

Saunders, M., Lewis, P. and Thornhill, A. (2016) Research Methods for Business Students. 7th Edition, Pearson, Harlow

Schleu, J. E., & Hüffmeier, J. (2020). Simply the best? A systematic literature review on the predictive validity of employee performance for leader performance. *Human Resource Management Review*, 100777. https://doi.org/10.1016/j.hrmr.2020.100777

Shawyun, T. (2021). Integrated Electronic HEI Performance

Management. https://www.igi-global.com/chapter/integrated-electronic-hei-performance-management/263603

Shenoy, V., & Bhattacharya, D. (2020). Engaging Mind Chemistry with Gamification: HR Practitioners Views. *Ushus Journal of Business Management*, *19* (4), 39-48. https://doi:10.12725/ujbm.53.4

Sonnentag, S. (2017). A task-level perspective on work engagement: A new approach that helps to differentiate the concepts of engagement and burnout. *Burnout Research*, 5, 12–20.

Taber, K. S. (2018). The Use of Cronbach's Alpha when developing and reporting research instrument in Science Education, 1273–1296. https://doi.org/10.1007/s11165-016-9602-2.

Talukder, K. I., & Jan, M. T. (2017). Factors Influencing Sales Peoples Performance: A Study of Mobile Service Providers in Bangladesh. *Academy of Marketing Studies Journal*.

Tamba, N., & Riyanto, S. (2020). How to Improve Performance through Training and Development? *IOSR Journal of Business and Management*, 09-15.

Turner, P. (2020). The organisation of work and employee engagement. https://link.springer.com/chapter/10.1007/978-3-030-36387-1_7