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Effect of Employee Training and Development on Organizational Performance: A Study of Selected Oil Services Companies in Port Harcourt

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ABSTRACT

Aim of the Study: This study investigated the effect of employees training and development on performance of oil services companies in Port Harcourt. The study was motivated by increasing low level of participation of indigenous oil services firms in the oil and gas industry of Nigeria inspite of the enactment of the Nigerian local content policy aimed at favoring indigenous oil services firms' participation in the oil and gas industry. The objectives of the study included; to analyze the effect of on-the-job training, in-service training, participation in seminars/ workshops/ conferences, exhibitions as well as involvement in research and development by staff of oil services firms on the performance of their organizations.

Methodology: Four research questions and four hypotheses were formulated to guide the study. A total of 15 firms were surveyed. The questionnaire was the primary instrument of data collection. A reliability coefficient of 0.765 was obtained using the Cronbach Alpha. A study population was made up of 152 technical staff of the surveyed firms. A study sample of 110 people were administered copies of the questionnaire. A total of 96 returns were made, out of which 14 were found invalid. The analysis was based on the opinion expressed by 82 of the respondents. One sample test, multiple stepwise regression models, t-test, F-test were used to test the various component of the research. The hypotheses were tested at 0.05 level of significance.

Findings: The study found that only x_2) and x_4 had significant effects on performance (y). While the effect of x_2 was positive that of x_4 is negative.

Conclusion: The study concludes that oil services companies in Port Harcourt seem not to have invested adequately in x_1 and x_3 given the absence of the variable in the model equation. The study recommended that oil services companies in Port Harcourt need to review the human resources development policies and practices with specific attention on improving the level of x_1 and x_3 while sustaining x_2 and x_4.

Keywords: Human resource, Employee, Training, Development, Organizational performance, Oil services companies, Port Harcourt.

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Introduction

Technological revolution, knowledge-based economy, globalization and competitions are putting pressure on organizations on the need for efficient and effective services delivery. Competitiveness and survival of any business enterprise today, depends critically on its ability to have a pool of skilled, experience and highly motivated workforce. Hence, human capital is the catalyst that drives every other resource available to an organization, for value creation. Manpower training and development remains the most potent tool for creation and sustenance of human capital in organizations leading to creativity and innovation for enhanced productivity.

Investment in human capital through training and development plays a vital role in ensuring that an organization is efficient and effective in its operations (Falola et al 2014). No wonder, Ebiringa and Okorafor (2010) asserts that attracting and selecting academically qualified, skilled and experienced employees is a necessary start for sustainable human capital development efforts for organizations.

The above assertion indeed, is more pertinent for firms in the oil and gas industry, not only due to high technical, technological oriented and high precision nature of operations of the sector; but more so, due the high risk associated with job activities, especially in Nigeria.

The increasing demand for high-skilled manpower by firms in the Nigerian oil and gas sector is becoming more challenging for indigenous companies, given that the implementation of the provisions of the Nigerian content policy has provided many opportunities for indigenous companies. Hence, to optimize the opportunities indigenous firms must build the technical and managerial capacities of their employees to delivery within acceptable global standards. Manpower training and development remains the sliver-bullet that indigenous firms in Nigerian oil and gas industry need to grow, develop, and remain globally competitive, in line with changing trends.

Tanmoy (2010) insist that the development of human capital is that function of management, ensuring that personnel working actively in an organization acquire skills that are deemed relevant and competencies for optimum efficiency and effectiveness, through a planned training and skills developmental system of activities.

Admittedly, the development and enhancement of human capital resource in organizations play a vital role in the creation of significant organizational competencies spiraling into a great boost for further increasing innovativeness, and the current literature to a large extent supports the fact that performance of an organization is boosted by the impact of positive human capital enhancement practices.

Ebiringa and Okorafor (2010) observed that in Nigeria, it seems training is commonly practiced as a one-time activity, which is applied to fresh recruits. This is a mistake given that formal education, sponsorship to seminars and workshops, R&D (research and development), on-the-job training and participation in exhibitions and for employees helps them adjust to speedy changes in job requirement among other things. However, other reasons for increased emphasis on the importance of increased human capital training and development include:

a. creating an aggregate of readily available and adequate substitute for employees who may leave or advance in the organization from internal sources;

b. enhancing the ability to embrace and use progressions in technology and market platforms because of a competent knowledgeable workforce;

c. building a more efficient and highly propelled team, which enhances competitive position and upgrades the employee morale; and

d. ensuring sufficient human resources for addition of new programs.

Despite the existence of a growing mountain of research supporting the relevance of human training and development to effective performance, not much has been done on assessing the extent to which firms in

the Nigerian Oil Services sector practice some of the globally known standards. Indigenous Oil Services firms operating in Port Harcourt appears to be struggling to attain global best practices in service delivery in order to compete effectively with its foreign counterparts largely due to inadequate training and improvement of its employees.

Based on this and with the aim to contribute to the existing body of knowledge particularly in the sphere of manpower training and development, this research seeks to study the effect of employees training and development on performance of oil services firms in Port Harcourt.

Statement of the Problem

In Nigeria, the oil and gas sector have major influence in shaping the nation's economy because it plays a major role as the prominent revenue earner and contributes over 80% of the nation's gross domestic product (GDP) (DPR, 2005). The Nigerian oil and gas sector has strong challenges as it relates to need for successful maintenance and services of production infrastructure (oil wells). Topmost of these challenges is inadequacy of available skilled and experiences technical staff in most of the oil services firms, especially the indigenous ones. Of course, advancements in oil and gas production technology and global environmental concerns have made the need for skilled and experience manpower in oil services firms a critical requirement for good performance of firms in the sector. The above situation often exposes crude oil wells, pipelines and storage facilities to problem of production downtime, pipeline rupture and oil spills thereby affecting negatively, delivery of planned crude oil for exports and local refineries. Therefore, concerted efforts need to be made to increase the success level of oil facilities services contracts as the risk associated with unsuccessful oil services contracts is often high give the massive revenue losses, environmental and socioeconomic distortions such situations create.

Perhaps, the reason for the above may be that technical teams of oil services firms are adequately equipped by way of education, on-the-job training and experience by way of global exposures to handle the enormous responsibility of delivering quality jobs, oil maintenance services contracts efficiently and effectively, hence the research work.

Objectives of the Study

The aim of this study is to investigate human capital development practices of oil services firms operating in Port Harcourt, Rivers State Nigeria and its effect on their performance. In order to achieve the above, the following objectives were set:

1. Investigate the significance of on -the -job training as a human capital development tool for performance enhancement of oil services firms in Port Harcourt;
2. Examine the significance of in-service trainings and professional development as a tool of human capital development for performance enhancement of oil services firms in Port Harcourt;
3. Analyse the significance of seminars, workshops, conferences, exhibitions as a human capital development tool for performance enhancement of oil services firms in Port Harcourt.
4. Appraise the significance staff involvement in research & development programmes and projects as a human capital development tool for performance enhancement of oil services firms in Port Harcourt.

Hypotheses

In order to ensure that answers obtained on each of the above questions are statistically tested for validity, the following hypotheses were formulated:

H_{01}: Using on-the-job training as a human capital development tool by Oil Services firms in Port Harcourt will not lead to significant improvement in their performances.

H_{02}: Granting staff of Oil Services firms in Port Harcourt in-service trainings and professional development opportunities will not lead to significant improvement in the performances of the firms.

H_{03}: Staff participation in seminars, workshops, conferences and exhibitions will not improve performances of Oil Services firms in Port Harcourt significantly.

H_{04}: Exposing staff of Oil Services firms in Port Harcourt to research & development programmes and projects will not significantly lead to performance improvements in the companies.

Method

Research Design

The study made use of survey designs in the collection of data based on opinion expressed by selected technical staff of fifteen selected Oil Services firms operating in Port Harcourt. The objective being to assess the effects of training and development on performance of selected Oil Services firms.

Type of Data used and Sources

This study made use of only primary data in it analysis. The use of only primary data for analysis was informed by the lack of access to reliable and comprehensive data on employees training and development in the surveyed firms. Also given that the concept of training and development influence workers' skills and work attitudes which has the tendency of impacting positively or negatively on organizational performance, the study considered seeking the opinion of employees who are direct beneficiaries of training and development as well as the most critical drivers of organizational performance.

To this extent primary data was generated by way of field surveys using questionnaire (see appendix 2). The opinions expressed were weighted to generate quantitative data that were subjected to reliability, descriptive and inferential statistical analysis that led to the findings and conclusions.

Study Population and Sample Size

Based on the records collected from the database of the Directorate of Petroleum Resources (DRP) only fifteen (15) of the registered Oil Services Firms operating in Port Harcourt have valid operation permit as Oil Services Company as at the time of this study. Based on the small number of firms, all of them were visited for purposes of data collection. The firms were categorized based on size of technical staff into large, medium and small as indicated in Table

Table 1: *Distribution of Population across Firms*

Large		**Medium**		**Small**	
Name of Firm	**No**	**Name of Firm**	**No**	**Name of Firm**	**No**
Schlumberger	19	G. Cappa	14	Solar Turbines Services	8
Halliburton Energy Services	17	Rizil Oil and Gas.	9	Tenaris Global Services.	7
Aosorwell Ltd.	15	Orclean Invest Africa	7	Code Oil and Gas.	5
Sapiem Contracting	16	General Electric	10	Salem Gardens	4
		Vandfina	11	Tri Continental Oils and Services	3
				Spie	7
Total	**67**		**51**		**34**

Source: HR Records of Various Firms as at March 10, 2017.

Table 1 shows that the total population of technical staff involved in oil wells servicing across the fifteen firms surveyed is one hundred and fifty-two (152).

The sample size for the study is determined using Taro Yamani's formula as follows:

$$n = \frac{N}{1+N(e)^2} \qquad 3.1$$

Where:

N = population

n= sample size

e = error margin (0.05).

Sample size:

$$n = \frac{152}{1+152(0.0025)} \qquad n = 110.15 \rightarrow 110 \text{ approx.}$$

Based on the above the sample size for the study was one hundred and ten (110) representing 72.37% of the study population.

Sampling Technique

A combination of quota and simple random sampling was adopted by this study for data collection. The quota sampling was adopted in the distribution of the sample size of 110 respondents to the fifteen firms categorized into large, medium and small size firms as shown in table

Table 2: *Quota Samples*

Large		**Medium**		**Small**	
Name of Firm	**No**	**Name of Firm**	**No**	**Name of Firm**	**No**
Schlumberger	13	G. Cappa	9	Solar Turbines Services	6
Halliburton Energy Services	12	Rizil Oil and Gas.	7	Tenaris Global Services.	5
Aosorwell Ltd.	11	Orclean Invest Africa	6	Code Oil and Gas.	3
Sapiem Contracting	12	General Electric	8	Salem Gardens	2
		Vandfina	8	Tri Continental Oils and Services	3
				Spie	6
Total	**48**		**37**		**25**

Description of Survey Instrument

The questionnaire was the principal instrument used for data collection. The questions contained in the questionnaire were structured in line with the "Likert –5 –point scale" (appendix 2). This gives the respondents the flexibility of multiple-choice responses. The multiple responses include "Strongly agrees"; "Agrees"; "Undecided"; "Disagrees" or "Strongly disagrees" with each of the statements made in the questionnaire. However, the ranking of the responses is in an increasing order of, starting from 2 to -2 respectively. Also, the weighting of the responses is in a reverse order with the response corresponding to a ranking of 1, having a weighting of 2. The others equally follow in the like manner.

The instrument was designed on the assumption that organizational performance is a function of employees' skills and attitude which is influenced by exposure to trainings and developments by way of:

a. on the job training, apprenticeship and mentorship
b. in service trainings, professional courses, formal education
c. seminars, workshops, conferences, exhibitions,
d. Research & development programmes and projects.

The above was identified in the literature as essential to employees' productivity and organizational performance. The expectation therefore, is that opinions expressed by sampled employees are honest, objective and reliably reflect the state of existence employee training and development as well as performance levels of the sampled Oil Services firms.

Validity of the Instrument

The instrument (appendix 2) used was validated by two experts: the project supervisors and a Professor of Measurement and Evaluation at University of Port Harcourt. Aside minor corrections made by each expert, they were in agreement that the content and statements contained in the instrument were about 95% adequate to elicit objective responses from respondents and has high likelihood of leading to the realization of the stated aim and objectives of this study.

Administration of the Instrument

Copies of the questionnaire were administered to the respondents using personal contact method with the aid of three trained research assistants. This method was used to ensure that questions which needed clarifications in terms of words and phraseology were addressed and retrieved back as soon as possible. Of the total 110 copies of questionnaire distributed, only ninety-six (96) were retrieved, while of the retrieved copies, fourteen (14) were found invalid as consistency in opinion expressed was in doubt, thereby the actual responses found valid and used for analysis was eighty-two (82) recording a 74.55% success rate in data collection.

Reliability of the Instrument

The questionnaire was earlier pilot tested on a set of ten (10) Postgraduate students studying Petroleum Geology at the University of Port Harcourt.

Table 3: *Reliability Statistics*

Cronbach's Alpha	N of Items	N	%
.765	12	10	100

Table 3 shows their responses gives a Cronbach's alpha value of 0.765, implying that the weighted responses of 10 Petroleum Geologist sampled used to pre-test the survey instrument (appendix 1) shows 76.5% likelihood of collecting reliable data for realizing the study objectives.

Tools of Data Analysis

In analyzing, the data collected, descriptive statistics (response weighting, means, ranking, standard deviations and percentages) as well as inferential statistics (correlation coefficient, one sample t-test and multiple regressions) were used. One-sample t-test was used to identify the importance of the employees training and development methods. The multiple regression model was used to test the nature and magnitude of the effects of selected training and development on organizational performance. The analysis model used is as shown in equation 2.1.

$$Y = a_0 + b_1X_1 + b_2X_2 + b_3X_3 + b_4X_4 + e_0 \quad \ldots \quad 2.1$$

Where:

Y = Weighted performance level of organizations
X_1 = Involvement in the job training, apprenticeship and mentorship;
X_2 = Participation in service trainings, professional courses, formal education;
X_3 = Attendance to seminars, workshops, conferences, exhibitions
X_4 = Involvement in research & development programmes and projects.

a_0 = constant term

b_1, b_2, b_3 and b_4 coefficient to be estimated
e_0 = error term.

The t-test was used to test the significance of the effects of each of employees' training and development activities (X_1, X_2, X_3 and X_4) on performance level of the organizations (Y), while the F-test was used to test the joint effect of all the training and development activities on firm performance. All the hypotheses earlier stated were tested at 0.05level of significance

Data Presentation and Results of Analysis

The weighted responses of the eighty-two technical employees of the fifteen firms sampled in this study to the questions contained in the questionnaire are summarized in Table 3 (see Appendix 2). The result of the descriptive statistics is presented in Table 4.

Table 4: *One-Sample Statistics*

		N	Mean	Std. Deviation	Std. Error Mean
Staff having opportunities to learn new skills on the job	X_{11}	82	1.4146	1.05352	.11634
New staff learn practical skills under experienced staff	X_{12}	82	-.4756	1.32614	.14645
Skilled and experienced staff mentor younger ones	X_{13}	82	1.5854	.87420	.09654
Staff working in Teams	X_{14}	82	.8902	1.49076	.16463
Senior staff performance measured by subordinates' output	X_{15}	82	1.3171	1.20573	.13315
Staff sponsorship to short professional skills development	X_{21}	82	1.5122	1.02130	.11278
Sponsorship of staff for academic studies with pay	X_{22}	82	1.4634	1.15678	.12775
Absorption of staff on study leave without pay after studies	X_{23}	82	.5366	1.63447	.18050
Sponsorship of staff to acquire professional programmes	X_{24}	82	1.4634	1.15678	.12775
Period sponsorship of staff to trainings on priority areas	X_{25}	82	1.4878	1.12485	.12422
Sponsoring staff to national seminars & conferences	X_{31}	82	1.3049	1.26383	.13957
Organizing in-house seminars/conferences/workshops	X_{32}	82	.4390	1.55633	.17187
Sponsoring staff to technical exhibitions outside the firm	X_{33}	82	1.3415	1.23947	.13688
Organizing in-house technical exhibitions for Staff	X_{34}	82	.3415	1.68669	.18626
Sponsoring staff to international seminars & conferences	X_{35}	82	1.3171	1.34144	.14814
Organizing staff in research & development groups	X_{41}	82	.8415	1.46961	.16229
encouraging creativity and innovation of Staff	X_{42}	82	1.3171	1.34144	.14814
Making information on technological advancement available	X_{43}	82	1.2805	1.25977	.13912
Availability of adequate budget for R & D activities	X_{44}	82	1.3171	1.34144	.14814
R & D Unit operating its budgets freely	X_{45}	82	.5244	1.54141	.17022
Company being highly competitive in the industry	Y_1	82	-.7317	1.66332	.18368
Company having the best skilled manpower in the industry	Y_2	82	1.3780	1.12919	.12470
Developed in-house technologies/techniques for operations	Y_3	82	1.3659	1.29111	.14258
Activities level of the company is relatively high	Y_4	82	1.1707	1.34994	.14908
Having the best manpower development policy in the industry	Y_5	82	.8049	1.62115	.17903
Having one of the best staff remuneration in the industry	Y_6	82	1.0976	1.36635	.15089
Not meeting project contracts time lines is minimal.	Y_7	82	.2683	1.59512	.17615

Not meeting project contract budget/cost time lines is minimal.	Y_8	82	.5976	1.54648	.17078
Having history of delivering project contracts at reasonable cost	Y_9	82	1.2073	1.36750	.15102
Delivering projects with reasonable profit margins	Y_{10}	82	1.1829	1.36199	.15041

Table 4 show that among the human development factors, the one with the highest absolute mean value (1.5854) is X_{13} representing 'skilled and experienced staff mentoring younger employees'; while the least absolute mean value (0.3415) is X_{34} representing 'Organizing in-house technical exhibitions for Staff' . On the other hand, for the organization performance factors, Y_7 representing 'not meeting project contracts time lines is minimal' has the least absolute value of 0.2683; while the highest is 1.3780 (Y_2) representing 'Company having the best skilled manpower in the industry'.

Table 5: *One-Sample Test*

	Test Value = 0					
	t	**df**	**Sig. (2-tailed)**	**Mean Difference**	**95% Confidence Interval of the Difference**	
					Lower	**Upper**
X_{11}	12.159	81	.000	1.41463	1.1832	1.6461
X_{12}	-3.248	81	.002	-.47561	-.7670	-.1842
X_{13}	16.422	81	.000	1.58537	1.3933	1.7774
X_{14}	5.408	81	.000	.89024	.5627	1.2178
X_{15}	9.892	81	.000	1.31707	1.0521	1.5820
X_{21}	13.408	81	.000	1.51220	1.2878	1.7366
X_{22}	11.456	81	.000	1.46341	1.2092	1.7176
X_{23}	2.973	81	.004	.53659	.1775	.8957
X_{24}	11.456	81	.000	1.46341	1.2092	1.7176
X_{25}	11.977	81	.000	1.48780	1.2406	1.7350
X_{31}	9.350	81	.000	1.30488	1.0272	1.5826
X_{32}	2.554	81	.013	.43902	.0971	.7810
X_{33}	9.801	81	.000	1.34146	1.0691	1.6138
X_{34}	1.833	81	.070*	.34146	-.0291	.7121
X_{35}	8.891	81	.000	1.31707	1.0223	1.6118
X_{41}	5.185	81	.000	.84146	.5186	1.1644
X_{42}	8.891	81	.000	1.31707	1.0223	1.6118
X_{43}	9.204	81	.000	1.28049	1.0037	1.5573
X_{44}	8.891	81	.000	1.31707	1.0223	1.6118
X_{45}	3.081	81	.003	.52439	.1857	.8631
Y_1	-3.984	81	.000	-.73171	-1.0972	-.3662
Y_2	11.051	81	.000	1.37805	1.1299	1.6262
Y_3	9.580	81	.000	1.36585	1.0822	1.6495
Y_4	7.853	81	.000	1.17073	.8741	1.4673
Y_5	4.496	81	.000	.80488	.4487	1.1611
Y_6	7.274	81	.000	1.09756	.7973	1.3978
Y_7	1.523	81	.132*	.26829	-.0822	.6188
Y_8	3.499	81	.001	.59756	.2578	.9374
Y_9	7.995	81	.000	1.20732	.9068	1.5078
Y_{10}	7.865	81	.000	1.18293	.8837	1.4822

Table 5 show that all the factors of employees training and development are significant at 0.05level excerpt X_{34} (t = 1.833) that is significant at 0.070 > 0.05. Also, for organizational performance factors only Y_7 (t = 1.523) that is significant at 0.132 > 0.05.

Effects of Employees' Training and Development on Organizational Performance

The data used for this analysis are derived as follows:

$Y = \Sigma\ Y_1, Y_2, Y_3, Y_4, Y_5, Y_6, Y_7, Y_8, Y_9, Y_{10}.$
$X_1 = \Sigma\ X_{11}, X_{12}, X_{13}, X_{14}, X_{15}.$
$X_2 = \Sigma\ X_{21}, X_{22}, X_{23}, X_{24}, X_{25}.$
$X_3 = \Sigma\ X_{31}, X_{32}, X_{33}, X_{34}, X_{35}.$
$X_4 = \Sigma\ X_{41}, X_{42}, X_{43}, X_{44}, X_{45}.$

Where:

X_1 = Involvement in the job training, apprenticeship and mentorship;
X_2 = Participation in service trainings, professional courses, formal education;
X_3 = Attendance to seminars, workshops, conferences, exhibitions
X_4 = Involvement in research & development programmes and projects.

Table 3.4: *Summary of Model Statistics*[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	R Sq	Adj R Sq	F_{cal}	Sig.
		B	Std. Error	Beta						
1	(Constant)	4.609	1.250		3.686	.000	0.115	0.104	10.416	.002[b]
	X_2	.578	.179	.339	3.227	.002				
2	(Constant)	6.095	1.330		4.583	.000	0.187	0.167	9.108	.000[c]
	X_2	.648	.175	.381	3.713	.000				
	X_4	-.368	.139	-.272	-2.649	.010				

a. Dependent Variable: Y

Two models for explaining the effects of employees training and development on performance of Oil Services firm was generated in two steps.

Step 1:

$$Y = 4.609 + .578X_2 \quad \ldots \quad 3.1$$

Step 2:

$$Y = 6.095 + 0.648X_2 - 0.368X_4 \quad \ldots \quad 3.2$$

The above results show that based on the opinion of technical employees of oil servicing firms operating in Port Harcourt the two variables of employees training and development that have the most significant effects on organizational performance are X_2 (staff in service trainings, professional courses, formal education) and X_4(Involvement of staff in research & development programmes and projects).

Test of Hypotheses

Equation 3.2 is used to test the earlier stated hypotheses.

Hypothesis one:

H_{01}: Using on-the-job training as a human capital development tool by Oil Services firms in Port Harcourt will not lead to significant improvement in their performances.

In testing this hypothesis, the presences of variable X_1 'representing staff involvement in on-the-job training, apprenticeship and mentorship' in equation 3.2 is of importance. Since X_1 is not included at the final step of the stepwise regression, the hypothesis is accepted with a conclusion though staff involvement in on-the-job training, apprenticeship and mentorship is an important tool of human capital development but its use by Oil Services firms in Port Harcourt will not lead to significant improvement in their performances.

Hypothesis two:

H_{02}: Granting staff of Oil Services firms in Port Harcourt in-service trainings and professional development opportunities will not lead to significant improvement in the performances of the firms.

In testing this hypothesis, the presences of variable X_2 'representing 'granting staff in-service trainings and professional development opportunities' in equation 3.2 is of importance. Since X_2 is present in equation 3.2, and was actually the first variable to enter the stepwise regression process, the hypothesis is rejected since the absolute t_{cal} value of 3.713is significant at $0.0001 < 0.05$. The conclusion therefore is that granting staff of Oil Services firms in Port Harcourt in-service trainings and professional development opportunities will lead to significant improvement in the performances of the firms.

Hypothesis three:

H_{03}: Staff participation in seminars, workshops, conferences and exhibitions will not improve performances of Oil Services firms in Port Harcourt significantly.

In testing this hypothesis, the presences of variable X_3 'representing staff participation in seminars, workshops, conferences and exhibitions' in equation 3.2 is of importance. Since X_3 is not included as at the final step of the stepwise regression, the hypothesis is accepted with a conclusion though staff participation in seminars, workshops, conferences and exhibitions is an important tool of human capital development, but its use by Oil Services firms in Port Harcourt will not improve their performances significantly.

Hypothesis four:

H_{04}: Exposing staff of Oil Services firms in Port Harcourt to research & development programmes and projects will not significantly lead to performance improvements in the companies.

In testing this hypothesis, the presences of variable X_4 'representing 'exposing staff to research & development programmes and projects' in equation 3.2 is of importance; Since X_4 is present in equation 3.2, and was the second and last variable to enter the stepwise regression process, the hypothesis is rejected given the absolute t_{cal} value of -2.649 that is significant at $.010 < 0.05$. The conclusion therefore is with a conclusion exposing staff Oil Services firms in Port Harcourt to research & development programmes and projects staff will lead to significant improvement in the performances of the firms.

Discussions and Findings

Based on the analysis of the data collected the findings made by this study are summarized as follows:

Though on-the-job training in-service trainings and professional development, sponsoring staff to seminars, workshops, conferences and exhibitions as well as exposing staff to research & development programmes and projects are all important tools of human capital development but for significant enhancement of performance Oil Services companies in Port Harcourt, attention should be focused on increased sponsoring staff to seminars, workshops, conferences and exhibitions as well as improved exposure of staff to research & development programmes and projects.

The positive effect of variable X_2 (granting staff in-service trainings and professional development opportunities) is consistent with the expected as skills and knowledge acquired by staff during in-service trainings and professional development programmes can be immediately applied and the positive effects on organizations' performance noticed in the short run.

The negative effect of variable X_4 (exposure of staff to research & development programmes and projects) is consistent with the expected as investment in R&D programmes and projects in the shortrun will always have negative effects on performance, which in the longrun will have highly significant positive effects on performances of organizations.

Conclusions

Though Oil Service firms in Port Harcourt should continue to maintain the practices of on-the-job training of staff and sponsorship of staff to seminars, workshops, conferences and exhibitions of human capital development, but they need to make more investments on in-service trainings and professional development opportunities for staff as well as increase the involvement of staff on research & development programmes and projects, as a way of enhancing their performances and that of the organizations.

Recommendations

Based on the above conclusions, the study made the following recommendations:

1. Oil Service firms in Port Harcourt should execute in-service trainings and professional development programmes as a strategy of human capital development by:

    periodically sponsor staff for short professional skills development courses

    grant their staff study leaves with pay to further their academic studies

    re-absorbing staff who were granted study leaves without pay after they must have completed their studies

    continuously sponsor staff on professional skills development programmes

    periodically sponsor their staff on trainings on specific priority skill areas.

2. Oil Service firms in Port Harcourt should execute their involvement of staff on research & development programmes and projects as a strategy of human capital development by:

    Organizing staff of the company into strategic research groups

    Encouraging creativity and innovation of staff members

    Making available to staff useful information on technological advancement in the job areas

    Making adequate budgetary provision for R & D activities in the companies

    Having a policy that ensures that R&D Unit of the company freely operate it R&D budgets.

Implication of the Study

This study which tries to see the relationship between the human capital development and technical team performance in the Oil Services industry will be of immense significance to the firms operating in the oil and gas industry, managers and employees in the oil services sector, government policy makers, supervisory bodies and regulators, the oil and gas majors, and the academia, as follows:

The research will add to the body of knowledge by providing resource materials and literature on human resources management. It will form the basis for further study for researchers having similar interest.

The Department of Petroleum Resources (DPR) is the government agency charged with the responsibility of ensuring sound professional practices in the Nigerian oil and gas industry, often regulate, supervise, monitor and evaluate practices of all operators including oil services firms, hence largest chunk of government finances is allocated to this operation. This study will be of significance to DPR in the performance of her functions as it relates to ensuring that oil services firms invest in the training and development of its technical employees. Oil majors like Shell, ExxonMobil, Chevron, Total energies etc. will find the outcome of this study useful as it will provide basis for continuous technical evaluation of oil

services firms with respect to quality of manpower. The government will be favoured as putting the findings of the study into use by all concerned will lead to efficient and effective maintenance of oil and gas infrastructure, thereby reducing the frequency of oil facilities breakdown an ideal time in the Nigerian oil and gas sector.

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Conflict of Interest

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APPENDIX 2

QUESTIONNAIRE

Mark 'x' as consider appropriate. SA: Strongly Agree; A: Agree; N: Undecided; D: Disagree; SD: Strongly Disagree

Factor 1: On the job training, apprenticeship, mentorship		**SD**	**D**	**N**	**A**	**SA**
1	Staff are often given opportunities to learn new skills on the job.					
2	New employees are given opportunity to learn practical skills under experienced staff					
3	Highly skilled and experienced staff are ever willing to mentor younger ones.					
4	Team work is a policy that every staff must observe in this company					
5	Productivity of a senior staff is measured alongside that his subordinates					
Factor 2: In service training, professional courses, formal education		**SD**	**D**	**N**	**A**	**SA**
1	Staff are periodically sponsored for short professional skills development.					
2	Study leaves for further academic studies are often granted to staff with pay					
3.	Staff on study leave without pay are re-absorbed when they are back					
4.	Staff are sponsored on continuous professional development programmes					
5.	the company often sponsor staff on trainings specific priority areas					
Factor 3: Seminars, workshops, conferences, exhibitions		**SD**	**D**	**N**	**A**	**SA**
1	Staff are often sponsored to national seminars, workshops & conferences.					
2	In-house seminars, conferences & workshops are often organized for staff.					
3.	Staff are often sponsored to external exhibitions.					
4.	In-house exhibitions are often organized for Staff on field technical issues					
5.	Staff are sponsored to international seminars, workshops & conferences.					
Factor 4: Research & development		**SD**	**D**	**N**	**A**	**SA**
1	Staff are organized in research groups by the company					
2	Staff creativity and innovation is encouraged by the company					
3.	Information on technological advancement are often made available to staff					
4.	Adequate budgetary provision for R & D activities is often made					
5.	R & D Unit freely operate it budgets					

Organizational Performance		**SD**	**D**	**N**	**A**	**SA**
1	Company is highly competitive in the industry					
2	Company has one of the best skilled manpower in the industry					
3	in-house technologies/techniques for operations management available					
4	Activities level of the company is relatively high					
5	Company has one of the best manpower development policies in the industry					
6	Company has one of the best staff remunerations in the industry					
7	Incidence of not meeting project time lines is minimal in the company.					
8	Incidence of not meeting project budget/cost time lines is minimal.					
9	Company has a history of delivering quality projects at reasonable cost					
10	Company delivers its projects with reasonable profit margins					