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Human Capital Development and Organisational Performance in Nigeria National Petroleum Corporation and Agip Company, Rivers State (2014-2024): A Comparative Analysis

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Abstract: This study investigated human capital development and organizational performance in Nigeria National Petroleum Corporation and Agip Oil Company, Port Harcourt, Rivers State (2014–2024). The study is prompted by the fact that despite numerous scholarly work on human capital development and organizational performance the problem of HCD and performance still persist. The study was streamlined into two research objective with corresponding research questions and hypothesis. The study adopted total quality management theory. The study adopted a mixed research design comprising quantitative and qualitative data analysis. The sample size of the study is 400 and was selected from both companies with consideration to their population size in the order of 288(72%) sample size from Agip, and 112 (28%) sample size from NNPC was determined with the use of Kpolovie's sample size formula. Quantitative data were analyzed using Likert criterion mean (at 2.5 cutoff mark) Also, the qualitatively data was analyzed using thematic data analysis. The quantitative data was analysed using descriptive statistic was used to answer the research questions while (PPMC) was used to test the hypotheses of 0.05 level of significance. The findings of this study revealed a consistent and significant positive relationship between the two dimensions of human capital development and organizational performance in both Agip and NNPC, although Agip demonstrated a stronger correlation across all variables due to strategic alignment, innovation, and performance-driven cultures. The study concluded that sustained human-capital development substantially enhances competitiveness, efficiency, and productivity in Nigeria's oil and gas sector. It therefore, recommended that although NNPC is currently making positive efforts in HCD, the organization should bring up their training efforts to a more strategic and competitive level when compared with Agip. Government firms like NNPC need to be more deliberate and strategic towards investing in technical and professional training. The training programs should be subsidize for the companies and also to be supervised to ensure that the right people benefit from it. There should be proper monitoring of the utilization of training funds to ensure that fund meant for trainings are not embezzled or misappropriated while reducing administrative bottlenecks that limit training programmes.

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Keywords: Human capital development, organizational performance, special technical skills acquisition, share of the market, soft skill acquisitions, customer satisfaction.

1. Introduction

The strength of many competitive organisation lies in their ability to maintain a sound human capital. In order to achieve their organisation goal, adequate and deliberate investment in human capital development is necessary [1]. Thus; firms seek to optimize

their workforce through comprehensive human capital development programmes not only to achieve business goals, but for a long-term survival and sustainability. To accomplish this, firms need to invest resources to ensure that employees have the knowledge, skills, and competencies they need to work effectively and ensure optimal organizational performance [2]. Felix and Francis, [3] defined human capital development as a framework for helping employees develop their personal and organizational skills, knowledge and ability. Accordingly, Human Capital Development (HCD) includes such opportunities as; employee training, employee career development, performance management and development, coaching, mentoring, etc which should be systematic, sustainable and strategic. It has become vital to the success of modern organizations, as rapidly changing technology requires employees to possess the knowledge, skills and abilities needed to cope with new processes and production techniques. To portray its importance, the Nigerian Oil and Gas Industry Act of 2010 requires that operators, contractors, and other partners prioritize Nigerians for training and employment.

It is therefore not out of place to say that no serious minded firm can take human capital for granted because it is one of the factors of production that has life and the ability to transform other factor inputs such as land and capital into meaningful and useful form in order to achieve the organizational goals and objectives [4]. Hence, the extent to which the organization's goals are achieved depends largely on the skills, knowledge, competency and the experience of the employees of the organisation [5]. Additionally, scholars like Graig [6]; Akintayo [7], and many more have observed the usefulness of training and knowledge in an organization and identified the functions of human capital development to include-increases productivity; improves the quality of work; enhances skills, knowledge, understanding and attitude; engenders the use of tools and machine; reduces waste, accidents, turnover, ensures the survival and growth of the organization etc.

On the other hand, organizational performance has always had significant influences on the actions of companies [8]. In his view, Hashem, [9] saw organizational performance as the degree to which the organization, with some informational, financial, and human resources, positions effectively within the business world. Thus; organizational performance comprises the actual output or results of an organization as measured against its intended outputs (or goals and objectives). In other words, it comprises real results or outputs compared with intended outputs. In terms of measurement therefore, its analysis often focuses on three main outcomes broader perspective-shareholder value performance, financial performance, and market performance [10]. However, these measures can equally be looked at from specific point of view where it is measured in terms of growth in profit, market share, return on asset (ROA), return on investment (ROI) and many more [11]. To this end, this current study measure performance in terms of market share and customer satisfaction in relation to human capital development in the oil and gas sector.

Human capital development is a very important HR function that has great impact on firm performance. But, as important as this HR function is; it is the perception of the writer that despite the efforts often made by private and public oil and gas firms like Nigeria National Petroleum Corporation (NNPC) (via international trainings/courses like chief officers course, IHCDI courses, JCCP courses and local courses carried out via NIMN, COREL, NSE, PTI, PTF etc) on human capital development as well as the scholarly postulations of writers like Zakari; Olaniyan and Okemankinde [12]; Nwachukwu [13] and many others, the problems associated with comparative analysis of human capital development in private and public sector still persists. In addition, it is often perceived that private organization are more customized and strategic with its HCD policies and thus perform better in HCD than public firms. The proponents of this perception are of the view that public organizations are frequently characterized by rigid structures, limited funding, and less emphasis on performance-based metrics. However, the writer perceived

that knowledge gap is still prevalent because existing literature often generalizes findings without considering the differences in institutional culture, governance structures, and performance demands that distinguish public and private sector oil companies. Consequent upon this, the current study investigates human capital development and organizational performance in Nigerian Agip Oil Company Limited and NNPC, Port Harcourt, Rivers State from 2014-2024.

Aim and objectives of the study

The aim of this study is to investigate human capital development and organizational performance in Nigerian Agip Oil Company Limited and NNPC, Port Harcourt, Rivers State from 2014-2024. The objectives of this study are to:

- i. Investigate the relationship between special technical skills acquisition and organizations' share of the market (revenue growth and brand recognition).
- ii. Examine how professional training for soft skills acquisition determines customer satisfaction (feedback forms and customer retention).

Research Questions

The following research questions are formulated to aid this study.

- i. What is the relationship between special technical skills acquisition and organization's share of the market?
- ii. How does professional training for soft skills acquisition determine customer satisfaction?

Hypotheses

H0₁: The acquisition of special technical skills acquisition does not increase the organization's share of the market.

H0₂: The acquisition of professional training for soft skills does not lead to greater customer satisfaction.

The review of relevant literature focussed on the proxies of HCD- special technical skills acquisition, professional training for soft skills acquisition and measures of organizational performance- market share and customer satisfaction.

Existing evidence suggests that companies that prioritize human capital investments are better equipped to overcome environmental limitations, improve staff morale, and enhance overall performance [14]. Human capital is made up of all the skills and abilities such as communication skill, technical skills, problem solving skills, education, creativity, experience, mental health, resilience and so on, inherent in man which contributes to social and economic growth. In their view, Tarek & Anas [15] defined Human capital development as the process of helping people to acquire expertise. Similarly, Schultz in [16] opined that human capital development is a key element in improving firm assets and employees to increase productivity as well as sustain competitive advantage.

The oil sector requires a diverse range of human capital competencies to operate effectively and sustainably. These competencies include both technical and soft skills, and their development is essential for improving efficiency and driving growth.

Technical Skills: The oil sector demands highly specialized technical expertise in areas like drilling, reservoir management, and petroleum engineering. Professionals with deep knowledge of these areas are crucial for optimizing oil extraction and refining processes. However, Nigeria's oil industry has struggled to produce enough skilled professionals to meet its technical needs, which limits its operational capacity and contributes to the sector's dependency on foreign labour [17].

Soft Skills: In addition to technical expertise, soft skills such as communication, teamwork, and problem-solving are vital for ensuring smooth operations in the oil sector. Professionals must collaborate across various teams, communicate effectively with stakeholders, and navigate complex problem-solving situations, particularly when dealing

with unexpected technical challenges. A lack of focus on soft skills in training programs can hinder the effectiveness of the workforce and delay the achievement of organizational goals.

Organizational Performance refers to the degree of achievement of the mission at work place that builds up an employee job. It measures efficiency of input and output. Contributing, Akpa et al, [18] sees performance to be as the same as efficiency and effectiveness for a specific programme or activity. As a result, Key Performance Indicators (KPIs) are used to measure the extent of achievement of objectives, goals, and targets. Velibor & Indrasen, [19] added that KPIs are generally categorized as financial or non-financial. However, in this study, they are measured in terms of Market share and Customer Satisfaction.

The study adopted Total quality management (TQM) by W. Edward Deming. This theory was first developed in the 1970s and 1980s in the context of industrial manufacturing. Total Quality Management (TQM) is a management approach that seeks to provide long-term success by providing unparalleled customer satisfaction through the constant delivery of quality services [20]. TQM is seen as a holistic quality management approach focused on long-term success through collaborations. Key principles of total quality management are Customer focus, Total employee involvement, Process approach, Integrated QMS, Proactive strategy, Continuous improvement, Fact-based decision-making and Communication. Companies that engage in total quality management provide more consistent and quality products that yield stronger customer loyalty.

It is important to acknowledge the fact that several studies have been conducted on the issue of HCD and organizational performance in the past, for instance, Akintoye & Akintoye [21] examined the perceived influence of soft skills on customer satisfaction in hospitality industries in Benin metropolis using descriptive survey type of research design with primary data collection and found that soft skills is useful in achieving organizational objectives. Also, Rosli, Ali, & Bakare, [22] investigated the effect of soft skill acquisition and customer satisfaction on the training using quantitative research approach and found that soft skill acquisition via HCD enhances customer satisfactions. In addition, Maksim et al. [23] examined investment in training and skills for innovation in entrepreneurial start-ups and incumbents in the United Kingdom and found that training enhance productivity and shareholders return on investment. On his part, Okilo, [24] examined knowledge skills acquisition and market performance in terms of organizational share of the market and concluded that skills acquisition is a veritable strategic tool for achieving market performance and organizational share of the market. Additionally, Adewumi, Alli, Akintajuwa & Ademola [25] investigated human capital cost and shareholders' equity of listed oil and gas companies in Nigeria using returns on equity (ROE) and it was found that consistent and transparent human capital disclosure practices are has a long-term positive effects on financial performance. Furthermore, using literature review approach, Consolata & Stephen, [26] examined Human Capital Development and organizational performance and found a significant relationship.

2. Methodology

This study adopted a mixed methodology which is a combination of the qualitative and quantitative research design. The rationale for adopting this design is because the combining of both quantitative and qualitative research methods can produce a more valid knowledge as well as a more balance outcome. The population of the study is made up of 4300 staff of both companies consisting of 1200 staff members of the NNPC and 3100 staff of Agip respectively. [27]. However, the study sampled 400 respondents using Kpolovie's minimum suitable sample size formula. Additionally, purposive sampling technique was used to select proportionally from each departments where 288 (72%) sample size from Agip, and 112 (28%) sample size from NNPC was achieved.

The questionnaire and interview methods were used for the primary data collection. The face to face interview was moderated by the researcher. A total of 50 participants (25 from each of the firms) were purposively and conveniently chosen from the initial respondents that did the questionnaire data gathering and from on the spot encounter. The assigning of code to the sample population was carried out using a code design that ranges from P1-P25 for each of the firms (where P is a code for *participant*). The transcription of the records was done using the intelligent (edited) transcript method that encourages non-verbal-verbatim. The researcher also kept field notes and written recordings produced during the data collection process. In addition, the content reliability was used in testing the reliability of the secondary data (from past authors) while the Cronbach alpha coefficients with the aid of SPSS was used in testing the quantitative data at 0.7 alpha value benchmark.

The collocated data was analysed using the quantitative and qualitative data analysis methods. The quantitative analysis was done using descriptive statistics like frequency tables, simple percentage, graphs, criterion mean and chart. The simple percentage research questionnaire items were structured and calculated in line with Likert-Scale framework of SA=Strongly Agreed; A=Agreed; D=Disagreed; SD=Strongly Disagreed at 2.50 criterion mean cut off point. The hypothesis was tested using the Pearson Product Moment Correlation (PPMC) analysis (at 0.05 significant levels) with the aid of SPSS software. Analysis of the qualitative data-the interviews was done using the thematic data analysis with the aid of data structure diagram and flowchart adapted from Corley & Gioria.

The decision criteria for the research questions is that only mean scores from 2.5 and above were accepted as the true position of the respondents. The R-value correlation coefficient indicates the strength of the relationship and direction of the relationship between the dependent and independent variables, so that R-value falls between -1 and +1; hence, $+1.00$ = perfect positive correlation, -1.00 = perfect negative correlation, 0.00 = no correlation, $+0.50$ = moderate correlation, $+0.70$ = strong positive correlation and -0.70 = strong negative correlation. The decision criteria is that; R-value greater than 0.50 ($R > 0.50$) are considered strongly correlated and vice-versa. In the same vein, the *p-value* is used to determine whether the R-value is statistically significant or not. Thus; $p < 0.05$ = statistically significant; $p > 0.05$ = not statistically significant.

3. Results and Discussion

The relevant data for this study indicated that a total of 400 questionnaires were distributed to the sampled firms with 288 respondents representing Agip Oil and 112 respondents representing NNPC. However, a total of 278 and 107 questionnaires were duly retrieved from Agip Oil and NNPC respectively. A total of 10 (2.5%) of the questionnaires were not retrieved from Agip Oil while a total of 5 questionnaires were not retrieved from NNPC. This is to say that in general, there was a 96.25% compliance and 3.75% non-compliance from the respondents. The 96.25% compliance rate shows how willing and dedicated the respondents are toward helping the researcher to achieve the objective of this study. It is worthy to note that sample captured the demographic diversity of the respondents in terms of gender, age, positions, income etc.

Research Question 1: What is the relationship between special technical skills acquisition and organization's share of the market?

Table 1. Special technical skills acquisition and organization's share of the market.

Valid Questionnaire Items (Agip)	N	Mean $\Sigma fx/\Sigma f$	SD $\sqrt{\Sigma (x-x)^2 / n-1}$	Criterion mean	Remark
1 Q. Item 1	278	3.4	0.9	2.5	Accepted
2 Q. Item 2	278	3.2	0.8	2.5	Accepted
3 Q. Item 3	278	3.9	1.1	2.5	Accepted
4 Q. Item 4	278	3.7	0.7	2.5	Accepted
5 Q. Item 5	278	3.0	0.6	2.5	Accepted
6 Q. Item 6	278	3.2	0.8	2.5	Accepted
7 Q. Item 7	278	2.9	1.2	2.5	Accepted
8 Q. Item 8	278	3.3	0.8	2.5	Accepted
9 Q. Item 9	278	3.2	0.8	2.5	Accepted
10 Q. Item 10	278	3.4	0.9	2.5	Accepted
$\Sigma fx/\Sigma f$	278	3.32	0.86	2.5	Accepted
Valid Questionnaire Items (NNPC)	N	Mean $\Sigma fx/\Sigma f$	SD $\sqrt{\Sigma (x-x)^2 / n-1}$	Criterion mean	Remark
1 Q. Item 1	107	2.2	0.4	2.5	Rejected
2 Q. Item 2	107	2.1	0.5	2.5	Rejected
3 Q. Item 3	107	2.4	0.6	2.5	Rejected
4 Q. Item 4	107	3.7	1.0	2.5	Accepted
5 Q. Item 5	107	2.2	0.4	2.5	Rejected
6 Q. Item 6	107	3.2	0.8	2.5	Accepted
7 Q. Item 7	107	2.9	0.7	2.5	Accepted
8 Q. Item 8	107	2.3	0.4	2.5	Rejected
9 Q. Item 9	107	3.2	0.8	2.5	Accepted
10 Q. Item 10	107	3.9	1.1	2.5	Accepted
$\Sigma fx/\Sigma f$	107	2.81	0.77	2.5	Accepted

Source: Researcher's computation

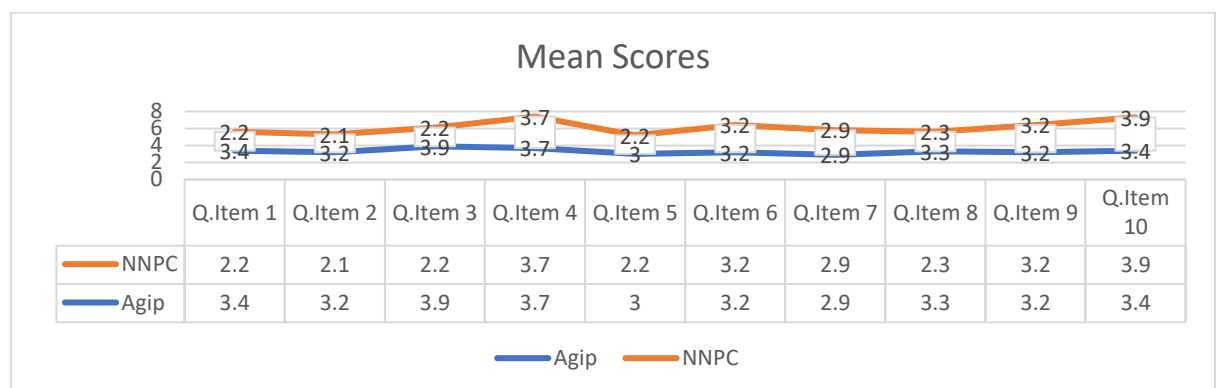


Figure 1. Respondents mean scores.

Legend: Q. Item =Questionnaire Items

Source: Author's computation from field survey (2026)

Looking at the analyses above, the mean scores of Agip Oil for questionnaire items 1 to 10 are all above the criterion means cut off point of 2.5 and thus cross the 2.5 cut off point (ie $3.32 > 2.5$). As such, all the questionnaire items for Agip with regards the relationship between special technical skills acquisition and organization's share of the market are accepted, hence we accept the fact that special technical skills acquisition affects organization's share of the market in Agip Oil.

However, in NNPC, the situation is slightly different; while the questionnaire items 1,2,3,5 and 8 were rejected, the questionnaire items 4, 6, 7, 9 and 10 were accepted as the true position in the NNPC with regards to special technical skills acquisition and organization's share of the market as indicated in the moderate mean score of $2.85 > 2.25$. This is to say that from reality/practical perspectives, special technical skills acquisition affects organization's share of the market in Agip Oil and NNPC at different degree.

Research Question 2: How does professional training for soft skills acquisition determine customer satisfaction?

Table 2. Soft skills acquisition and customers satisfaction.

Table 12: Cronbach's Alpha, Item-Mean, Item-SD, and Item-Correlation						
Valid Questionnaire Items (Agip)		N	Mean	SD	Criterion mean	Remark
			$\Sigma fx/\Sigma f$	$\sqrt{\frac{\Sigma (x-x)^2}{n-1}}$		
1	Q. Item 1	278	3.3	0.8	2.5	Accepted
2	Q. Item 2	278	3.4	0.9	2.5	Accepted
3	Q. Item 3	278	4.1	1.3	2.5	Accepted
4	Q. Item 4	278	3.7	0.7	2.5	Accepted
5	Q. Item 5	278	3.9	1.1	2.5	Accepted
6	Q. Item 6	278	3.2	0.8	2.5	Accepted
7	Q. Item 7	278	3.9	1.2	2.5	Accepted
8	Q. Item 8	278	3.3	0.8	2.5	Accepted
9	Q. Item 9	278	3.2	0.8	2.5	Accepted
10	Q. Item 10	278	4.2	1.4	2.5	Accepted
$\Sigma fx/\Sigma f$		278	3.62	0.98	2.5	Accepted
Valid Questionnaire Items (NNPC)		N	Mean	SD	Criterion mean	Remark
			$\Sigma fx/\Sigma f$	$\sqrt{\frac{\Sigma (x-x)^2}{n-1}}$		
1	Q. Item 1	107	3.2	0.8	2.5	Accepted
2	Q. Item 2	107	3.1	0.5	2.5	Accepted
3	Q. Item 3	107	3.4	0.9	2.5	Accepted
4	Q. Item 4	107	3.3	0.7	2.5	Accepted
5	Q. Item 5	107	2.2	0.4	2.5	Rejected
6	Q. Item 6	107	2.4	0.6	2.5	Rejected
7	Q. Item 7	107	3.1	0.3	2.5	Accepted
8	Q. Item 8	107	3.3	0.7	2.5	Accepted
9	Q. Item 9	107	2.2	0.4	2.5	Rejected
10	Q. Item 10	107	2.3	0.5	2.5	Rejected
$\Sigma fx/\Sigma f$		107	2.65	0.54	2.5	Accepted

Source: Researcher's computation

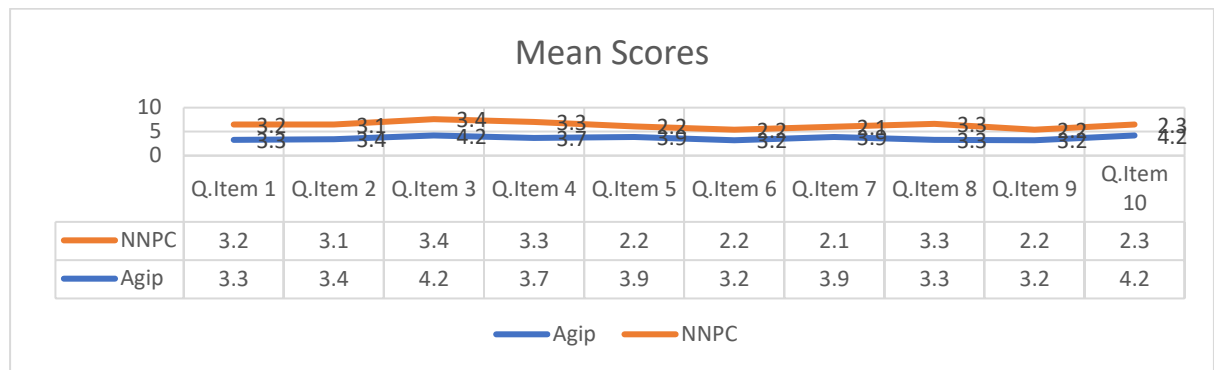


Figure 2. Respondents mean scores.

Legend: Q. Item =Questionnaire Items

Source: Author's computation from field survey

Form the analyses above, the mean scores of Agip Oil for questionnaire items 1 to 10 with regards to how professional training for soft skills acquisition determine customer satisfaction fall above the criterion means cut off point of 2.5 (ie mean score of 3.62>2.5). As such, all the questionnaire items for Agip with regards the how professional training for soft skills acquisition determine customer satisfaction are accepted, hence we accept the fact that professional training for soft skills acquisition determine customer satisfaction in Agip Oil.

In contrast, NNPC has a slightly outcome with regards to how professional training for soft skills acquisition determine customer satisfaction. There was an affirmative answers for questionnaire items 1, 2, 3, 4, 8 and 9 and a negative answers for others. The shortcoming here is that professional training for soft skills acquisition it is not taken as serious as it should be in NNPC as indicated in the moderate mean score of 2.65>2.50. From the above perspective; management and employees uphold the fact that professional training for soft skills acquisition determine customer satisfaction in Agip Oil far more than it is upheld in NNPC where such trainings are sometimes carried out once in a year for selected few employee, particularly senior staff and those about to attend managerial level (such as Chief Officers Course).

Test for Hypothesis

The hypothesis was tested using the Pearson's Moment-Product Correlation Coefficient analysis (at 0.05 significant level) with the aid SPSS statistical software.

Hypothesis One

H0₁: More special technical skills acquisition, does not amount to more likely the organization's share of the market increase

Table 3. Special technical skills acquisition and organizations' share of the market.

Valid Variables		Correlation Variable Pair			
Special Technical Skills Acquisition	Special Acquisition	Technical Organization	Skills 1	Market Share	
	Pearson Product Moment Correlation		N	r	p. value
	Sig. (2-tailed)	AGIP	278**	0.74**	0.000**
		NNPC	107**	0.56**	0.008**

Market Share	Pearson		1	1	
	Product				
	Moment				
	Correlation				
	Sig. (2-tailed)				
	N	278		0.74**	0.000**
	N	107	1	0.56**	0.008**

** . Correlation is significant at the 0.05 level (2-tailed)

Source: Survey Data from SPSS (2026)

The result in Table 1.3 shows that a strong positive relationship exists between special technical skills acquisition and organizational market share in both Agip and NNPC, though at varying magnitudes. For Agip, the Pearson correlation coefficient ($r = 0.74$, $p = 0.000$) indicates a very strong and statistically significant relationship, suggesting that increased investment in technical skill development directly enhances the company's ability to expand and sustain its market share.

On the other hand, NNPC recorded a moderately strong correlation ($r = 0.56$, $p = 0.008$), also statistically significant, showing that while technical skill acquisition positively influences its market performance, the strength of the relationship is comparatively weaker than in Agip. This could explain why all the refineries operated by NNPC have been down for years even with all the resources put into the ventures annually in the name of turnaround maintenance.

Thus the null hypothesis one, (H_{01}) which stated that more special technical skills acquisition, does not amount to more likely the organization's share of the market increase is hereby rejected and the alternative hypothesis (H_{A1}) which stated that the more the special technical skills acquisition, the more likely the organization's share of the market increase is thus accepted.

Hypothesis Two

H₀₂: More professional training for soft skills acquisitions does not amount to greater customer satisfaction

H_{A2}: The more the professional training for soft skills acquisitions, the greater the customer satisfaction will likely be.

Table 4. Professional training for soft skills acquisition and customers satisfaction.

Valid Variables		Correlation Variable Pair				
		Soft Skills Training and 1	Customer Satisfaction			
Soft Skills Training and Customer Satisfaction		Pearson Product Moment Correlation	Organization N	r	p. value	
		Sig. (2-tailed)	AGIP	278**	0.79**	0.000**
			NNPC	107**	0.58**	0.010**
Customer Satisfaction		Pearson Product Moment Correlation	1	1		
		Sig. (2-tailed)				

N	278		0.79**	0.000**
N	107	1	0.58**	0.010**

** . Correlation is significant at the 0.05 level (2-tailed)

Source: Survey Data from SPSS (2026)

The result presented in Table 1.4 reveals that professional training for soft skills acquisition has a significant positive relationship with customer satisfaction in both Agip and NNPC, although with varying strengths. For Agip, the correlation coefficient ($r = 0.79$, $p = 0.000$) demonstrates a very strong and statistically significant relationship.

For NNPC, the correlation coefficient ($r = 0.58$, $p = 0.010$) shows a moderate and statistically significant relationship, suggesting that while soft skills training positively influences customer satisfaction, the effect is less pronounced compared to Agip. This relatively lower correlation could imply that NNPC's training programs may not be as comprehensive or customer-oriented as Agip's.

Consequently, the null hypothesis two, (H_{02}) which stated that more professional training for soft skills acquisitions does not amount to greater customer satisfaction is hereby rejected and the alternative hypothesis (H_{A2}) which stated that the more the professional training for soft skills acquisitions, the greater the customer satisfaction is thus accepted.

Qualitative Data (Semi Structured Interview) Analysis

Based on the resolve of the researcher to present a more balanced and comprehensive result, a semi structured interview was further carried out to obtain a more expressional and in-debt opinions of the respondents on the human capital development and organizational performance in Nigerian Agip and NNPC.

Table 5. Coding and meaning.

S/n	Codes	Meaning
1	HCD	Human Capital Development
2	OP.	Organizational Performance
3	P1-P25	Participants 1-25
4	STSA	Special technical skills acquisition
5	MS	Market share
6	PTSA	Professional training for soft skills acquisition
7	CS	Customer Satisfaction

Sources: Author's coding

The result from the conducted interview are presented below data structure diagram

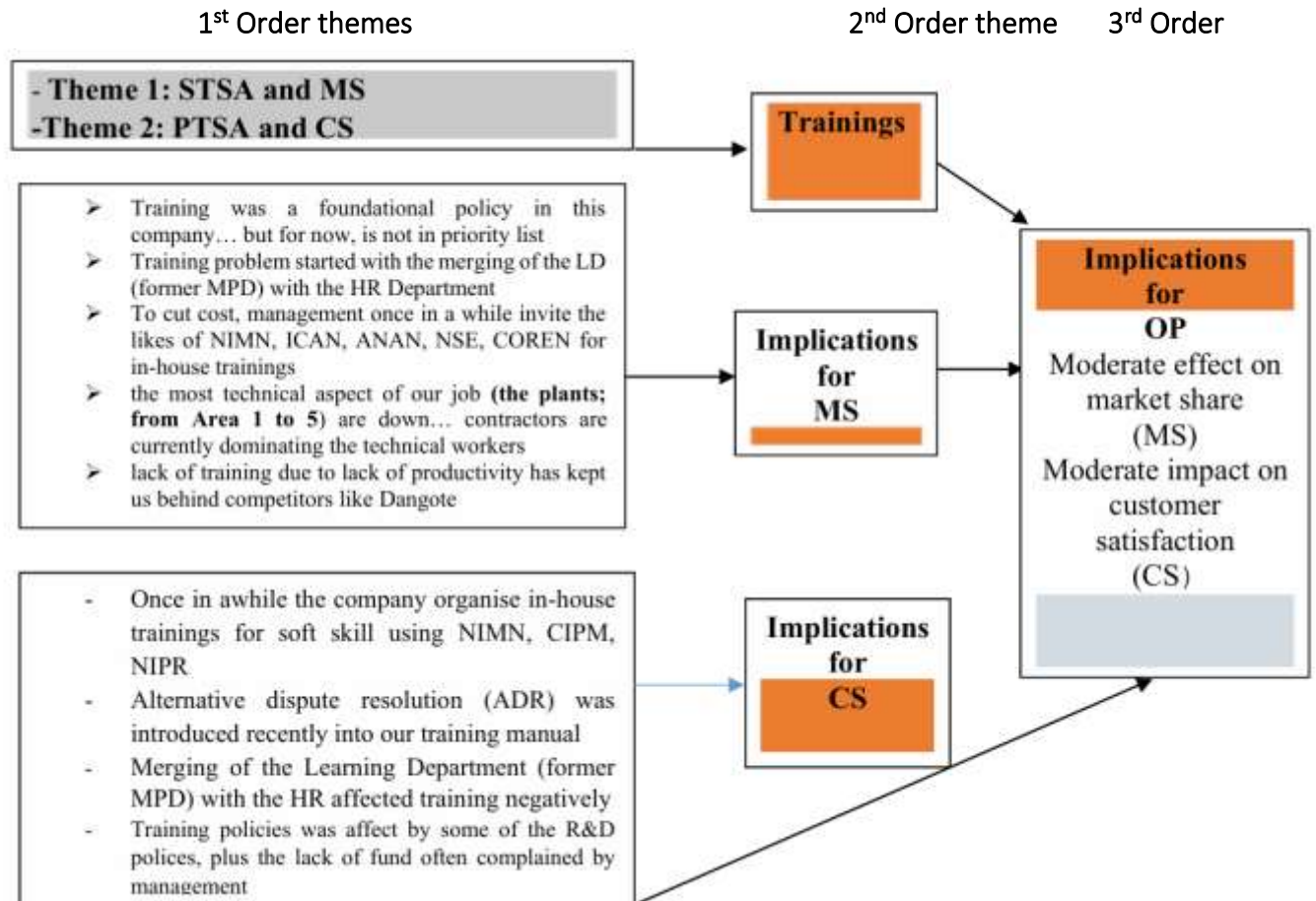


Figure 3. Data structure diagram from the interviews.

Source: Researcher's thematic structure diagram adapted from Corley & Gionia, (2004)

Flow chart for interview analysis

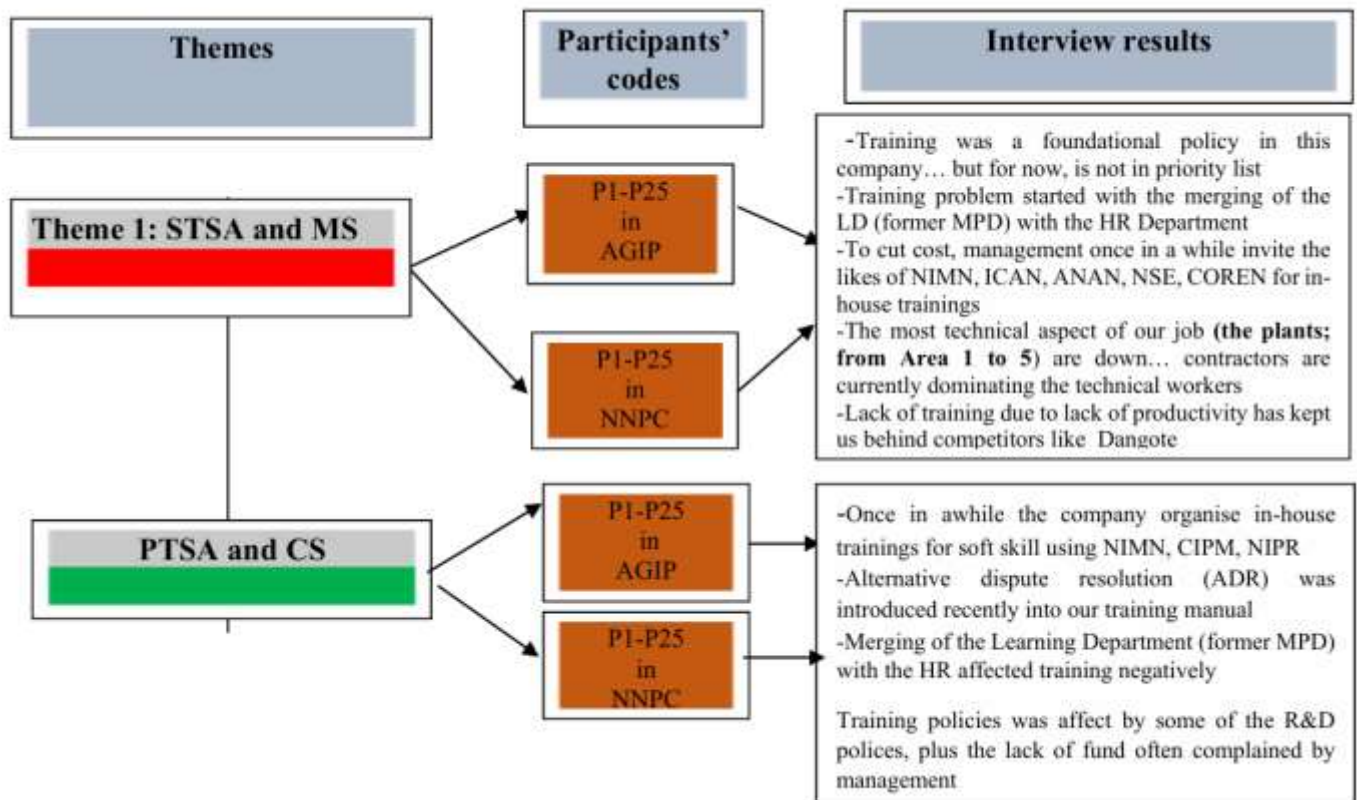


Figure 6. Flowchart for HCD and organizational performance.

Source: Researcher's field computation as adapted from Braun & Clarke, (2006) and Bryman, (2012).

The thematic analysis revealed that both AGIP and NNPC view human capital development as a catalyst for organizational performance, though with differing emphasis. AGIP demonstrated stronger alignment between employee training, innovation, and operational outcomes, highlighting efficiency, professionalism, and global competitiveness. NNPC's responses reflected meaningful but less intense impacts, constrained by bureaucratic structures top among which is the merging of the former manpower development department (MPD) with the HR department. This bureaucratic action seem to hide the training function under the huge burden of HR functions thereby removing it from front line priority where it receives less attention. Another key reason is the non-functional state of their core mandate (the *refining plants*) from Area 1 to Area 5 (where the technical jobs are sited) which has invariably kept their technical staff idle and thus made training look like a secondary HR function.

Similar views were replicated across themes on technical skills, soft skills, international workshops, inter-organizational postings, and creativity both organizations acknowledged that continuous employee development leadership competency fosters market growth, customer satisfaction, CSR effectiveness, and profitability on shareholder return on investment. Overall, the findings show that targeted investment in people enhances adaptability, innovation, and organizational sustainability and productivity confirming that human capital remains the central driver of performance and competitiveness in Nigeria's oil and gas sector.

The comparative analysis reveals that while both Agip and NNPC recognize the importance of human capital development, their approaches differ due to ownership and organizational objectives. Agip adopts a performance-oriented, skill-intensive human capital strategy, resulting in higher operational efficiency. In contrast, NNPC implements a national development-oriented human capital framework

For the first finding, the correlation analysis examined the relationship between special technical skills acquisition and the organization's share of the market for both AGIP and NNPC. The results revealed a strong positive relationship in both organizations, though varying in magnitude. For AGIP, the correlation coefficient ($r = 0.74$, $p < 0.05$) indicates a very strong positive and statistically significant relationship. Similarly, for NNPC, the relationship was also positive and statistically significant ($r = 0.56$, $p < 0.05$), though of a moderate strength compared to AGIP. The result for AGIP aligns with Adeyemi and Ogunsola who assert that sustained investment in employee technical capacity directly enhances productivity and organizational growth. AGIP's higher correlation value can be attributed to its structured private-sector model, where the acquisition of specialized certifications is strategically linked to production targets and business development. This supports Eze, Ezenwafor, & Molokwu who found that private manufacturing firms with continuous technical training programs recorded increased market share and client retention due to improved product quality and responsiveness. On the other hand, the moderate correlation in NNPC, while significant, reflects the institutional constraints of public-sector organizations as discussed by Okeke & Oboreh and which reflects what the respondents said about merging MPD with HR in Port Harcourt Refinery. In both cases, the findings corroborate the foundational proposition of human capital theory that investment in employee education and skills enhances organizational productivity and profitability.

The correlation analysis for research question 2 revealed a strong positive and statistically significant relationship in both organizations. Specifically, AGIP recorded a correlation coefficient of $r = 0.79$ ($p < 0.05$), indicating a very strong relationship between soft skills training and customer satisfaction. Similarly, NNPC exhibited a significant but moderately strong correlation of $r = 0.58$ ($p < 0.05$). These results suggest that employees' interpersonal competencies play a critical role in determining how clients perceive service quality and overall organizational reputation. This result conforms with Promise & Nwachukwu who emphasize that effective communication and teamwork are vital soft skills that enhance employee engagement and customer trust, particularly in service-oriented industries like oil and gas. This finding equally corroborates Felix and Francis, who argued that human capital development programs integrating soft and technical skills lead to improved interpersonal relations, fewer client complaints, and greater customer loyalty. The case with NNPC conforms with Okeke & Oboreh who noted that training programmes in many public institutions are often generic and bureaucratically implemented more as administrative formality than as strategic tools for improving service quality.

4. Conclusion

The findings of this studies revealed a consistent and significant positive relationship between the two dimensions of human capital development- special technical skills acquisition, soft skill and organization's share of the market as well as customer satisfaction. Although Agip demonstrated a stronger correlation across all variables due to strategic alignment, innovation, and performance-driven cultures. In Agip, human capital development is typically viewed as a strategic investment aimed at increasing productivity, profitability competitiveness, sustainability and improved operational efficiency. While NNPC viewed human capital development as a routine administrative obligation rather than strategic intervention and also they tend to operate within bureaucratic constraints that may limit agility in staff development and performance. However, on the aggregate, the study showed that there is a significant and positive relationship between human capital development and organizational performance in the oil and gas sector.

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