

EFFECT OF HUMAN CAPITAL DEVELOPMENT ON PERFORMANCE OF ABUJA ELECTRICITY DISTRIBUTION COMPANY IN NIGERIA

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Abstract

This study examines human capital development within the Abuja Electricity Distribution Company (AEDC) and its impact on organizational performance. It aims to identify challenges, gaps, and opportunities in human capital development within AEDC, assess the effectiveness of current initiatives, and explore correlations between human capital development and key performance indicators. Utilizing Human Capital Theory and Investment Theory of Human Capital, the research adopts a survey design covering AEDC staff from January 1, 2023, to December 31, 2023, with 4,276 staff members and a sample size of 366. Descriptive statistics, correlation analysis, and robust ordinary least squares regression are used for data analysis. Results indicate that increased investment in staff training negatively impacts organizational performance, while higher levels of skills and competence positively influence performance. Motivation shows a negative impact on job satisfaction and performance, highlighting the need for aligned motivation strategies. Enhanced employee well-being significantly improves performance, but job security negatively impacts performance, indicating the importance of factors beyond job security. The study concludes that staff training, skills, motivation, job satisfaction, and employee well-being are critical for AEDC's performance, recommending prioritization of training needs, fostering competence development, aligning motivation strategies, and recognizing employee well-being's significance beyond job security.

Keywords: Human capital development, performance, skills, employee motivation, employee well-being.

Introduction

The link between human capital development and organizational performance is a critical aspect of management and business studies. Human capital refers to the knowledge, skills, experience, and abilities that individuals bring to the workplace. Human capital development involves activities and processes that aim to enhance these attributes in employees. The connection between human capital development and performance can be explained through several key factors.

Human capital development involves training and educational programs that equip employees with new skills and knowledge relevant to their roles. As employees acquire and develop these capabilities, they become more adept at handling tasks and challenges, contributing to improved overall performance. Well-trained and skilled employees are generally more productive. They can complete tasks more efficiently and effectively, leading to increased output and higher levels of performance. Continuous development efforts can further enhance productivity by keeping employees updated on the latest industry trends and best practices.

Human capital development fosters a culture of continuous learning and encourages employees to think creatively. Employees with diverse skills and knowledge are more likely to contribute innovative ideas and solutions to organizational challenges. This innovation can positively impact performance by driving competitiveness and adaptation to changing market conditions. Investing in human capital development demonstrates a commitment to employee growth and well-being. Engaged and satisfied employees are more likely to be motivated and dedicated to their work. This, in turn, can lead to higher levels of performance as employees feel valued and are more willing to contribute their best efforts.

In dynamic and evolving business environments, organizations need employees who can adapt to change. Human capital development ensures that employees are equipped with the skills needed to navigate changes in technology, industry trends, and organizational structures. This adaptability contributes to organizational resilience and sustained high performance. Employees who perceive opportunities for growth and development are less likely to seek employment elsewhere. Human capital development initiatives contribute to employee retention by providing a path for career progression. Reduced turnover and absenteeism positively impact organizational performance by maintaining a stable and experienced workforce. Employees with strong human capital contribute to better customer service and satisfaction. Improved skills and knowledge enable employees to better understand and meet customer needs, leading to enhanced customer relationships and loyalty, ultimately contributing to organizational success and performance (Miller, 1978).

The study seeks to investigate and analyze the current state of human capital development within the Abuja Electricity Distribution Company (AEDC) and its impact on organizational performance. Specifically, the research aims to identify the existing challenges, gaps, and opportunities related to human capital development within AEDC, assess the effectiveness of current human capital development initiatives, and examine how the level of human capital development correlates with key performance indicators within the organization. The ultimate goal is to provide insights and recommendations that can inform strategic interventions and policies aimed at optimizing human capital contributions to enhance the overall performance and competitiveness of AEDC in the Nigerian electricity sector.

Hypotheses of the Study

This paper hypothesizes that human capital development has no significant effect on the performance of Abuja Electricity Distribution Company. Other specific hypotheses are:

Ho₁: Training and Development has no significant effect on performance of Abuja Electricity Distribution Company

Ho₂: Skill and Competence has no significant effect on performance of Abuja Electricity Distribution Company

Ho₃: Motivation and Job Satisfaction have no significant effect on performance of Abuja Electricity Distribution Company

Ho₄: Employee Well-being has no significant effect on performance of Abuja Electricity Distribution Company

Ho₅: Job Security has no significant effect on performance of Abuja Electricity Distribution Company

Understanding the link between human capital development and innovation can lead to initiatives that promote a culture of creativity and adaptability. AEDC can implement strategies to encourage employees to embrace new technologies, processes, and ideas, fostering a more innovative and responsive organization. The research findings can contribute to the development

of key performance indicators (KPIs) specifically related to human capital development. Monitoring and analyzing these metrics over time can provide insights into the impact of human capital initiatives on overall organizational performance.

Literature Review and Theoretical Framework

This section discusses works that are relevant to the study. The items discussed are as follows: Concepts which include human capital development and organizational performance variables. The section also captures the conceptual framework showcasing the definitions of various concepts used. Empirical review on human capital development and performance were reviewed. It ends with the theoretical framework.

Human Capital Development

Human capital refers to the collective skills, knowledge, experience, abilities, and other intangible assets possessed by individuals within a workforce. It represents the value that individuals bring to an organization or an economy as a result of their education, training, and personal attributes (Son, 2010). The concept of human capital emphasizes the idea that individuals, through their development and contributions, contribute to the overall productivity and economic success of an organization or a society. Human capital encompasses the tangible skills and knowledge that individuals acquire through education, training, and on-the-job experience. This can include technical skills, problem-solving abilities, and industry-specific knowledge. According to Acemoglu et al (2014), education is a fundamental component of human capital. Formal education, such as degrees and certifications, provides individuals with a foundation of knowledge. Training programs, both formal and informal, contribute to skill development and continuous learning.

Human capital is a source of innovation and creativity. Individuals with diverse skills and perspectives can bring fresh ideas and solutions to challenges, fostering innovation within organizations and contributing to their competitive advantage. Human capital emphasizes the importance of adaptability and the ability to learn continuously. In rapidly changing environments, individuals who can adapt to new technologies, methodologies and market trends contribute to the resilience and success of organizations (Levitas & Chi, 2010).

Performance

Performance is the ability of a firm to make effective use of resources at her disposal in order to achieve the desired objective. Hansen and Mowen (2005) have identified two (2) types of performance: financial performance and Non-Financial performance. The non-financial performance has to do with a non-figurative performance; it could be in the area of increase in the quality of product, increased in customers and other qualitative factors that add value to the firm. While financial performance is defined as the outcome of how well assets of a firm are utilized to generate income (Etim & Agara, 2011). It is a yardstick applied to measure the financial health of a firm over a given period of time. It is also described as a measure of a firm's policies and operations in monetary terms. The result could be reflected on the firm's return on assets (ROA), return on equity (ROE) and sales growth.

Empirical Literature Review

Aderibigbe, Dauda and Fapohunda (2022) examined the impact of human capital development on employee's performance in two Chinese owned manufacturing firms. Descriptive (survey) research design was employed and the data collected were analyzed using linear regression to highlight the relationships between its variables. Two Chinese owned manufacturing firms were considered and the population for the study was three hundred and eighty four 384. The sample size for the study was 200 while the sample techniques employed was purposive method. The

study revealed that Job related experiences, Development skills acquired through academic and professional qualification and identification of training programs have significant influence on the performance of employees in the Chinese owned firms in Nigeria.

Abubakar, Oluwade and Ibrahim (2022) examined the relationship between human capital development (HCD) and employee retention (ER) in some selected tertiary institutions around Nigeria. HCD was measured using training and development (TD) and career planning (CP) as proxy variables. On the other hand, ER was measured using employee motivation (M), workplace flexibility (WPF), and work-life balance (WLB). Two regression models were set up for both TD and CP to determine their impact on M, WPF and WLB. Results showed TD is a significant positive predictor of all three factors of employee retention (M, WPF, and WLB). Findings also show that CP is a significant positive predictor of WPF (0.811), WLB (0.845) and M (0.356).

Onoriode (2022) evaluated the effect of human capital development cost on the firm financial performance of listed manufacturing companies in Delta State covering the period of 2014 -2018 financial years. He adapted a longitudinal research design and the data collected were analyzed using descriptive and inferential statistics. Secondary data, the panel in nature, were gathered from annual reports and audited accounts of these firms that were selected using a stratified sampling technique. The results revealed a significant influence and positive relationship between Human capital investment, welfare cost and financial performance of listed manufacturing companies.

Mgbemena, *et al.*, (2022) examined human capital development and organizational performance in Coscharis Nigeria Limited in Anambra State, Nigeria. They adopted Survey research design. The population of study 547 and sample size for the study was 547. Primary sources of data were used. The major instrument used in this research was questionnaire. Test –retest through and Cronbach Alpha was employed in ascertaining the reliability of the instrument. The result revealed a Cronbach Alpha value of 0.7and 0.8. Simple percentage analysis was employed to answer the research questions. Multiple regression analysis was used in test hypotheses. They found that training has a significant positive influence on organizational performance. Knowledge accessibility has a positive significant influence organizational performance and learning capacity have a significant positive effect on organizational performance.

Idiaro and Dauda (2022) examined the impact of human capital development on employees' productivity in Nigeria. Descriptive method was adopted. The sample size for the total population used for the study was seventy five. The study showed that the authority should come up with some operative plans particularly in advancing the various characteristics of human capital.

Okoye, Zhu and Guo (2022) examined the effect of Human Capital Development on the Performance of Small and Medium-Scale Enterprises in the Southeast Region of Nigeria. The study used a survey research design. Semi-structured interviews were employed to collect data on the issues of HCD in SMEs to understand the problems that affect their performance. The study adopted primary data. The data employed t-test statistical tool. The result showed that, training has a significant positive effect on organizational performance while skills acquisition has a significant positive effect on the organizational performance.

Barinua and Akpan (2022) examined the connection between training and service quality, training and service timeliness, mentoring and service quality, and mentoring and service timeliness. The result of their study showed that training and mentoring are critical methods for developing human capital and increasing employee productivity.

Anosa (2021) examined human capital development and organizational productivity in selected manufacturing firms South-East, Nigeria. The sample size for the study was 302 using statistical formula devised by Taro Yamane (1973). Data source used was Primary sources. Test –retest through pilot study and Cronbach Alpha was employed to ascertaining the reliability of the instrument. The result revealed a Cronbach Alpha value of 0.7 and 0.8 which is within acceptable threshold. The tools employed for analyzing data collected were simple percentages, and statistics analysis. The study showed that training and development has a significant positive influence on organizational productivity. Employee engagement has a significant positive effect on organizational productivity.

Rahman and Akhter (2021) examined the aspects of investment in human capital like training of employees, education level of employees, knowledge level of employees, and skills of employees that influence the performance of a bank and to provide some comments to improve the banking sectors. The research included a conceptual model along with hypotheses. The empirical study is based on primary data. The data were obtained by the convenient sampling procedure with a questionnaire using the seven-point Likert scale. The hypothesized model was validated using data from 261 participants, and an analysis was conducted using the system of structural equation modelling. The results showed that investment in training, knowledge level and skills of the employee were positively connected to bank performance at less than 1% and a 5% level of significance.

Eyikorogha and Anthony (2021) examined human capital development in Kaduna State Media Corporation (KSMC). The survey research was used as the research design, hence questionnaire constitute the main instrument of data collection. The research indicated that human capital development in KSMC aid staff productivity as well as helps to bring various talents into single umbrella objective as well as a very good tool for strategic integration, higher commitment and flexibility of work. Human capital development is constrained with issues arising from improper funding as well as mismanagement of funds for human capital development.

Ofuoma, Aniekwe and Edeme (2021), examined the relationship between Human Capital Development and Organizational Performance in the Nigeria Aluminium Manufacturing Sector. The study was conducted in respect of measures of human capital development [Talent Development (TD), Training & Development (T&D), Knowledge Management (KM) and Career Development (CD)] on Organizational Performance (ORGP) and responses from the respondents were collected with the aid of five (5) likert scale questionnaire. The survey research design was employed and the simple random sampling is a method was used to determine sample size of the study. A total of ninety-nine questionnaires were administered to staffs of Whictech Aluminium Limited and Flight Aluminium Plc in Asaba, Delta State. Out of the ninety-nine (99) questionnaires, ninety (90) 90.91% were retrieved and properly filled while nine (9) 9.09% were not returned. Thus, the sample to be used for the study will be the total of ninety (90) respondents. The hypotheses of the study were tested using the multiple regression statistical tools with the aid of SPSS version 23 as the basis of testing hypotheses. The findings revealed that there is significant negative relationship between [Talent Development (TD), Training & Development (T&D), Knowledge Management (KM) and Career Development (CD) has a significant relationship with Organizational Performance (ORGP). The study concluded that, overall that human capital development had a significant impact on the organizational performance of the manufacturing firms.

Agbo (2020) examined the effects of human capital development in optimizing employees' performance with respect to Abia State house of Assembly. Survey design was employed and

data was collected primarily using frequency distribution table, and percentages were used to analyze the data from the questionnaire, while simple regression and correlation with the use of SPSS were used to analyze the hypotheses. The findings revealed that there was a significant and positive relationship between human capital development programmes and the productivity of the employees.

Patrick, Assaad and Udo (2020), discussed how developing human capital can have a direct positive effect on operational performance. The case study method is used to address the sustainability issues a Lebanon-based retail e-commerce company is facing. They utilized the socio-economic qualimetrics methodology to discuss the corporate change from within the enterprise at all levels and with the contribution of all the participants in the firm. The focus of the case study was on qualitative, quantitative, and financial aspects through competitiveness enhancement and operational effectiveness metrics. The findings of this intervention research contribute to the literature insofar as enhancing the social capital of a retail e-commerce organization positively impacts its performance.

Theoretical Framework

Several theories and models linking Human Capital Development (HCD) to organizational performance were reviewed. These theories highlight the importance of investing in human capital for achieving better organizational outcomes.

Human Capital Theory: Human Capital Theory is an economic theory that originated in the mid-20th century and was developed by economists Gary Becker (Becker, 1994, pp. 15-28) and Theodore Schultz (Schultz, 1961). This theory views education, training, and health as forms of investment in human beings, akin to investments in physical capital such as machinery and equipment. The central idea is that individuals and societies can enhance their productivity and economic well-being by investing in the development of human capital. The theory posits that investments in education, training, and health contribute to the accumulation of human capital. Human capital, in turn, enhances an individual's productivity and overall economic performance. Organizations that invest in the development of their employees' skills and knowledge are likely to experience improved productivity and performance.

Investment Theory of Human Capital: The Investment Theory of Human Capital is an economic theory that explores the idea that individuals make rational decisions to invest in their own education and training based on the expected returns on that investment. The theory emerged as an extension of Human Capital Theory, which was developed by economists Gary Becker and Theodore Schultz. This theory, emphasizes that individuals make rational choices regarding education and training based on the expected return on investment in their human capital. Organizations that understand and align their Human Capital Development initiatives with the expectations and aspirations of employees are likely to see improved performance as employees invest in their own development. Similar to the broader Human Capital Theory, the Investment Theory views education, training, and skill development as investments in human capital. These investments are expected to yield future returns in the form of increased productivity, higher earnings, and improved employability.

Methodology

The study adopts the survey research design. The study population covers Abuja Electricity Distribution Company between 1st January, 2023 and 31st December, 2023. There are four thousand, two hundred and seventy-six members of staff across Nigeria where they operate as at 31st December, 2023. The sample size for this study was derived from the total population using Taro Yamane's formula for finite population (Yamane, 1967). The formula is given as:

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

Where;

n = the sample size

N = population

e = level of significance is 0.05

1 = constant).

$$n = \frac{4,276}{1 + 4,276(0.05)^2}$$

$$n = \frac{4,276}{1 + 10.69}$$

$$n = \frac{4,276}{11.69}$$

$$n = 365.7$$

Therefore, based on the final sample size of 366 determined above, the number of persons to be administered with questionnaire shall be 402.6 (403) personnel after 10% provision to accommodate some questionnaires that may not be returned. Questionnaires were administered on four hundred and three (403) staffs of the Abuja Electricity Distribution Company in Nigeria via administration of questionnaires. Performance has been considered as the dependent variable while human capital development was considered as the independent variables. For the analysis purpose, descriptive statistics, reliability analysis and inferential statistics such as multiple linear regressions was used. Information obtained from different literature sources reviewed was incorporated in the design of each instrument. This instrument was specifically designed by the researcher in the form of close ended type and was sub-divided into two parts namely sections A and B. It was scored using Likert Modified Four Point rating Scale of Strongly Agreed (SA), Agree (A), Undecided (UD) Disagreed (D) and Strongly Disagreed (SD).

Reliability and Validity: Reliability of research instrument is the measure of the dependability and the internal consistency of the items of the instrument of data collection. In this research work, the researcher will adopt Cronbach's Alpha statistical test as it is the most popular internal consistency reliability estimate and Cronbach Alpha results that are above the benchmark of 0.6 and above are considered to be reliable. In the area where questionnaire was administered to the staff, five Likert point scale of strongly agreed, agreed, undecided, disagreed and strongly disagreed were awarded scores ranging from 5-1 respectively.

The designed instruments for this study were given to my supervisors to vet for face and content validity. The supervisor systematically go through the instruments to identify items that are not required and suggests relevant ones that was essential for inclusion in the research instruments and the corrections was effected accordingly. Besides the validation of supervisors, other experts' opinion was sorted and pilot study was carried out to establish validity and reliability of the questionnaire administered. The Pre-test study includes the administration of questionnaires to some respondents. Pilot test needs to account for at least 10% of the sample (Amir et al, 2021). This was done by the researcher in order to meet the purpose of pre-test testing which determines the correctness and suitability of tools of data collection.

The data collected for this study was analyzed using different statistical procedures. The Bio-data variables of the respondents were subjected to simple percentages. This was because it could easily be understood with simple percentages than with any other statistical tools. Multiple Regression Technique and Robust Ordinary Least Square were adopted for the study.

Descriptive statistics was used which encompasses the minimum, maximum, mean, standard deviation, skewness, kurtosis and Jacque-Bera. This feature describes the type, nature and forms of the data used. The correlation matrix was used to test for the magnitude of association, its direction and the level of significance of association between the dependent and the independent variables of the study.

3.2 Model Specification

The following equation forms the model of the study using Multiple Regression. The equation is represented as given below:

$$PF_i = \beta_{0i} + \beta_1TD_i + \beta_2SC_i + \beta_3MJ_i + \beta_4EW_i + \beta_5JS_i + \mu_{it}$$

Where:

PF = Performance (Quality Service Delivery), TD = Training and Development, SC = Skill and Competence, MJ = Motivation and Job Satisfaction, EW = Employee Well-being, JS = Job Security, $\beta_1, -\beta_5$ = Coefficient of explanatory variables, β_0 = Constant or Intercept, μ = Error Term, i = Abuja Electricity Distribution Company

Results and Discussion

The descriptive statistics is presented in Table 2 showing the minimum, maximum, mean, standard deviation, skewness, kurtosis and Shapiro-Wilk of the data regarding the variables used in the study.

Table 1: Descriptive Statistics

Variables	Min	Max	Mean	Std. Dev.	Skewness	S.wilk
FP	9	21	16.84	2.07	-0.201	0.00000
TD	5	20	14.21	3.90	-0.84	0.00000
SC	6	21	14.66	2.81	-0.32	0.00912
MJ	7	20	15.62	2.90	-0.71	0.00000
EW	11	28	22.86	3.02	-0.62	0.00000
JS	5	20	15.03	3.20	-0.86	0.00000

Source: Descriptive Statistic Results Using STATA 13

Table 1 shows the minimum value for performance is 9 implying that the lowest of performance was nine within the AEDC. When compared with the highest level of performance from the result, it depicts that performance was at a maximum of 21. The mean value of sixteen further substantiates the fact that performance was high within the study period. As such, this result could be relied upon looking at the value of the standard deviation which is far away from the mean value. The value for skewness which is around zero shows that the data for performance was normally distributed.

Training and Development recorded a minimum value of 5 and maximum value of 20 implying that within the AEDC firm and the study period, there were staff that did not have enough training and development within the period. The highest value implies that there was staff that had enough training within the period of study. The mean value of 14.21 implies that, on the average, the firm had enough training and development for their staff. The Standard Deviation was lower than the mean thereby implying that the deviation of the mean from actual value was not too grievous. The value for skewness which is around zero shows that the data for performance was normally distributed.

Skills and Competence had a minimum value of 6 and a maximum value of 21, implying that the lowest value for skill and competence was six, while the highest value for skills and competence also was twenty one. On the whole, skills and competence recorded a mean value of 14.66, implying that, on the average, most of the staff had reasonable skills and competence on the job. The standard deviation implies that the mean value recorded was the true average for the firm as

it was over than the mean. The value for skewness which is around zero shows that the data for performance was normally distributed.

Motivation and Job Satisfaction had a minimum value of 7 and a maximum value of 20 implying that there was staff in AEDC within the study period that had only seven points for motivation. Meanwhile, the highest value for motivation and job satisfaction recorded was twenty points. The mean value of about 15.62 implies that, on the average, there was, at least, staff with fifteen points of motivation and job satisfaction. The standard deviation for this variable implies that its mean is a well-represented average as there was less deviation of about 2.9 times. The value for skewness which is around zero shows that the data for performance was normally distributed.

Employee well-being recoded a minimum value of 11 and a maximum value of 28 for the firm within the study period. The mean value of about 22.86 implies that, on the average, most of the staff well-being was above average. The standard deviation of 3.02 implies that the mean value is a good representation of average as there was a less deviation of about 3.02 times. The value for skewness which is around zero shows that the data for performance was normally distributed.

Job security recoded a minimum value of 5 and a maximum value of 20 for the firm within the study period. The mean value of about 15.03 implies that, on the average, most of the staff had above average job security on in the firm. The standard deviation of 3.20 implies that the mean value is a good representation of average as there was a less deviation of about 3.20 times. The value for skewness which is around zero shows that the data for performance was normally distributed.

Table 2 shows the Spearman Correlation values between the dependent and the independent variables. It also shows the relationship amongst the independent variables. It further shows the correlation matrix with the values displaying the spearman correlation coefficient between all the pairs of the variables.

Table 2: Correlation Matrix

	PF	TD	SC	MJ	EW	JS
PF	1					
TD	.3107*	1				
SC	.5227*	.5108*	1			
MJ	.1838*	.4642*	.5624*	1		
EW	.7848*	.7505*	.6111*	.4205*	1	
JS	.0895	.1729*	.1727*	.1303*	.1751*	1

Source: Correlation Matrix Results Using STATA 13

*. Correlation is significant at 0.01 or 0.05 level (2-tailed)

Table 2 shows that performance is positively correlated with training and development to the tune of 31%. This implies that performance has direct correlation with training and development. Skill and competence is found to have positive relationship with performance to the tune of 52%: implying a direct correlation between the two variables. Performance recorded a positive relationship with motivation and job security at a magnitude of 18%. This shows a correlation between the two variables in the same direction. Employee well-being has a positive correlation with performance of Abuja Electricity Distribution Company thus implying direct relationship at a magnitude of 78%. Job security has Positive correlation with performance at a magnitude of 8% implying also a direct association between job security and performance.

Generally, the relationship among the independent variables of the study themselves were found to be significant. Therefore, on the overall variables, according to Cassey & Anderson (1999), to establish the presence of multicollinearity in the correlation matrix, the Variance Inflation Factor (VIF) and tolerance values was used and were found to be consistently smaller than ten and one

respectively, indicating an absence of multicollinearity (See Appendix A). To further substantiate this position, the mean VIF of 1.95 indicating that multicollinearity is not a problem.

Robustness Tests

This section presents the results from the robustness tests conducted. The robustness tests include: multicollinearity test, heteroscedasticity test and normality test of error term.

Multicollinearity Test: This was conducted to check whether there was a correlation between the independent variables of the study. The Variance Inflation Factor (VIF) and the Tolerance Test estimated was used to test for multicollinearity in all the three regressions. The variance inflation factor and tolerance estimated were found to be consistently smaller than ten and one respectively for the regression (See Appendix A). To further substantiate this claim, the mean VIF of 1.95 which is smaller than ten (10) for the regression, indicate that multicollinearity was not a problem (Tobachnick & Fidell, 1996).

Heteroscedasticity Test: Result obtained from the heteroscedasticity tests conducted for the regression. The result indicates that their chi-square value of 12.85 was large as the probability value was not more than 5%. This indicates that heteroskedasticity were present in the regression. This makes the interpretation of Ordinary Least Square (OLS) not suitable because of the violation of the classical assumptions of OLS. However, steps were taken to correct it by estimating a robust standard error and conducting a normality of the error term.

Normality of the Error Term (Kernel Density): Normality of the error term was conducted using the kernel density estimate. It was found that most of the residual of the error term showed that they were tolerably mild. As such, a high level of normality of the error term was attained.

Presentation and Interpretation of Regression Result

This section presents the regression result of the performance model and the regression result from the parsimonious model of the study. This is followed by its interpretation, analysis and discussion of the results in respect of the model. Hypotheses formulated earlier in chapter one were tested based on the analysis. The section ends with the policy implications of our findings for management, regulators, policy makers and investors.

Table 3: Summary of Robust Ordinary Least Square Regression

Variables	Coef.	T-stat	Prob	Summary
Constant	2.576	4.46	0.000	
TD	-0.324	-19.79	0.000	
SC	0.138	5.79	0.000	
MJ	-0.096	-3.99	0.000	
EW	0.814	27.97	0.000	
JS	-0.018	-1.18	0.239	
R ²				0.8152
F-Statistics				482.37
P-Value				0.0000
Hetest				12.85
Probability				0.0003
Mean VIF				1.95
Observation				386

Source: Result output from STATA 13

The cumulative R² of 0.8152 for the variables, which is the multiple coefficient of determination, gave the proportion of the total variation in the dependent variable as explained by the independent variable jointly. Hence, it signified that 81.52% of the total variation in performance of Abuja Electricity Distribution Company is accounted for by Training and Development, Skill

and Competence, Motivation and Job Satisfaction, Employee Well-being and Job Security variables used in the study.

The Fisher Exact Statistics value of 482.37 which is significant at one percent indicates that human capital development and performance model is fit. It implies that for any change in human capital development of Abuja Electricity Distribution Company, their performance will be affected directly. The P-value of Fisher exact test which is statistically significant at a level of 0.0000 implies that there is 99.9 percent probability that the relationship among the variables were not due to mere chance. As such, the results from the regression can be relied upon. In addition, it implies that the independent variables reliably predict the dependent variable of the study.

Training/Development and Performance

From Table 3, it was observed that the t-value for training and development (TD) was -19.79, while the coefficient value was -0.324 with a significant value of 0.000. This signifies that training and development has a significant and negative effect on performance of Abuja Electricity Distribution Company. This implies that for every increase in the amount spent on training and development of staff, the performance of Abuja Electricity Distribution Company will decrease by the coefficient value. This may be as a result of the fact that training and development of staff is expected to enhance the ability and efficiency of service delivery which will translate into performance for the firm but if the need for each employee is not well identified, it can lead to poor performance of the employee which will affect the organizational performance.

Based on the forgoing analysis in respect of the variable, hypothesis one, as captured earlier in chapter one of the study, which states that Training and development has no significant effect on performance of Abuja Electricity Distribution Company is hereby tested. This, therefore, provides enough evidence of rejecting null hypothesis one of the study.

Skills/Competence and Performance

The regression results reveal that Skills and Competence, as depicted in Table 3, have a t-value of 5.79 and a coefficient value of 0.138 which is significant at 1% level. This indicates that Skills and Competence has a positive and significant effect on performance of Abuja Electricity Distribution Company. This implies that for every increase in the percentage of skill and competence of staff of AEDC, their performance will increase significantly by the coefficient value. This may be as a result of the argument put forward that additional skills and competence of staff a great tool to achieving higher efficiency resulting into overall performance of firm.

Based on the forgoing analysis in respect of the variable, hypothesis two, as captured earlier in chapter one of the study, which states that skills and competence has no significant effect on performance of Abuja Electricity Distribution Company is hereby tested. This, therefore, provides enough evidence of rejecting null hypothesis two of the study.

Motivation/Job satisfaction and Performance

The motivation and job satisfaction variable has a t-value of -3.99 and a coefficient value of -0.096 which is significant at 1% level. This shows that motivation and job satisfaction have a significant but negative effect on performance of Abuja Electricity Distribution Company. This connotes that an increase in the value of motivation and job satisfaction of staff will decrease the level of performance significantly. This may be as a result of the fact that when staff motivation is not prioritize and align with what interest them, it may not yield the needed result and as such will affect the overall organizational performance.

Based on the forgoing analysis in respect of the variable, hypothesis three, as captured earlier in chapter one of the study, which states that Motivation and Job satisfaction has no significant effect on performance of Abuja Electricity Distribution Company is hereby tested. This, therefore, provides enough evidence of rejecting null hypothesis three of the study.

Employee Well-being and Performance

Employee Well-being recorded a t-value of 27.97 and a coefficient value of 0.814 which is significant at 1% level. This shows that the Employee Well-being positively and significantly affected the performance of Abuja Electricity Distribution Company. This implies that when the well-being of employees is enhanced, the performance of Abuja Electricity Distribution Company will significantly improve by the coefficient value. This may be as a result of the fact that when employee feels that the organizational takes their well-being as priority, they also act in the best interest of the firm thereby affecting the overall performance of the organization.

Based on the forgoing analysis in respect of the variable, hypothesis four, as captured earlier in chapter one of the study, which states that employee well-being has no significant effect on performance of Abuja Electricity Distribution Company is hereby tested. This, therefore, provides enough evidence of rejecting null hypothesis four of the study.

Job Security and Performance

The result in respect of job security as shown on Table 3 has a t-value of -1.18 and a coefficient value of -0.018. This is significant at a 1% level. This indicates that job security has both negative and significant effects on performance of Abuja Electricity Distribution Company. This implies that for every increase in the security of the job of employee, there is a significant decrease in the level of performance by Abuja Electricity Distribution Company. This may be as a result of the argument put forward that job security is not enough to guarantee organizational performance through employee but the need to also ensure that their welfare is a priority and also have enough motivation from the management.

Based on the forgoing analysis in respect of the variable, hypothesis five, as captured earlier in chapter one of the study, which states that Job security has no significant effect on performance of Abuja Electricity Distribution Company is hereby tested. This, therefore, provides enough evidence of rejecting null hypothesis five of the study.

Conclusion and Recommendations

From the results, analysis, interpretation and discussions in chapter four, the study concludes as follows that: Organization that embark on staff training and development alongside recognizing each staff training needs is associated with high performance except if their needs are not prioritized. Competence and skills of workers in AEDC are prerequisite for better enhanced performance as entrenched good output and guarantee high performance in an organization. Motivation and job satisfaction if not channeled properly could lead to poor organizational performance. Motivating an employee is not enough but identifying their needs and what satisfy each individual employee is a key driver to achieving more efficiency which will lead to high performance

Employee well-being is an effective means through which the managers could encourage their employee to put in their best at work if they must achieve their long term organizational objective. Job security of an employee is not a strong driver to achieve an organizational success. This further prove that the security of job does play a significant and effective role in ensuring quality output at work and, hence increase in the level of performance.

Following the findings and conclusions listed above, the study came up with the following recommendations in order to mitigate the possibility of decreased organizational performance at Abuja Electricity Distribution Company.

On the training and development of staff, the management of Abuja Electricity Distribution Company should identify the training and development needs of individual employee before embarking on such in order to avoid training mismatch if organizational performance must be prioritized.

The management should identify the skills and competence of each individual employee before assigning responsibilities or task in the organizational in order to achieve maximum efficiency and effectiveness on job by the employee that will guarantee high performance.

On motivation and job satisfaction, the management needs also to identify what motivates each individual employee in order to achieve job satisfaction that will assist and drive the employee desire towards achievement of organizational goals and objective.

The management should consider the employee well-being aside their other emolument, because an employee who is not in state of good health and mind cannot contribute much toward the organizational success.

The managers of Abuja Electricity Distribution Company should be more conscious of the job security of their employee as it can negatively affect the overall performance of the firm. Also, job security is not a key driver of performance when it comes to human capital development in Abuja Electricity Distribution Company

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Appendix A

Table 1: Variable Definitions and Measurements

Variable	Proxy(ies)	Definition of Variables	Measurement
Performance	Quality Service Delivery	Quality service delivery is a fundamental aspect of business success, particularly in service-oriented industries. It involves consistently meeting or exceeding customer expectations by providing products or services that are reliable, effective, and meet specified standards	Mean of responses for the five (5) items questionnaire
Human Capital Development	Training and Development	Training and development are essential components of an organization's strategy to enhance the skills, knowledge, and capabilities of its workforce. This proactive approach not only benefits individual employees but also contributes to the overall success and	Mean of responses for the five (5) items questionnaire

		competitiveness of the organization	
Human Capital Development	Skill and Competence	skills are the individual, trainable capabilities that make up the building blocks of competence. Competence, on the other hand, involves the effective integration and application of those skills in real-world situations. While skills can be more narrowly focused on specific tasks, competencies are broader and often require a combination of technical expertise and interpersonal abilities. Both skills and competencies are crucial for personal and professional success in various fields	Mean of responses for the five (5) items questionnaire
Human Capital Development	Motivation and Job Satisfaction	Motivation and job satisfaction are interconnected concepts that play a crucial role in the overall well-being and performance of individuals in the workplace. In the context of the workplace, motivation is the force that energizes, directs, and sustains an individual's efforts toward the achievement of organizational objectives	Mean of responses for the five (5) items questionnaire
Human Capital Development	Employee Well-being	Employee well-being refers to the overall health, happiness, and prosperity of individuals in the workplace. It extends beyond traditional measures of job satisfaction to encompass physical, mental, and social dimensions. Recognizing and promoting employee well-being is essential for fostering a positive work environment, enhancing productivity, and supporting the long-term success of both individuals and organizations.	Mean of responses for the five (5) items questionnaire
Human Capital Development	Job Security	Job security refers to the assurance or confidence that an individual has in the continuity of their employment. It is a fundamental aspect of the employer-employee relationship and plays a significant role in an individual's overall well-being. Job security is influenced by various factors, and its importance may vary across industries, economic conditions, and individual perspectives.	Mean of responses for the five (5) items questionnaire

Source: Field Work, 2023