

Human Capital Development and Firm Productivity in Nigerian Brewery Industry

ARUOREN, Emmanuel Ejiroghene^{1*} & EDEH, Ifeyinwa Mariagoratti²

¹Department of Business Administration, Faculty of Management Sciences,
Delta State University, Abraka, Nigeria

²School of Environmental Technology, National Institute of Construction Technology and Management,
Uromi, Edo State, Nigeria

DOI: <https://doi.org/10.56293/IJMSSSR.2023.4704>

IJMSSSR 2023

VOLUME 5

ISSUE 6 NOVEMBER - DECEMBER

ISSN: 2582 - 0265

Abstract: The study examined the effect of human capital development on productivity of selected brewery firms in the south-south and south-east geo-political zones of Nigeria. Cross sectional survey design was adopted, with a population of 7802 employees. A sample size of 380 was determined based on Taro Yamani's sample size determination formula. The research instrument was a structured questionnaire and analysis was performed using the Statistical Package for Social Sciences (SPSS) version 23.0 software. Multiple regression analysis was used to test the hypotheses. It was found that level of training had a positive and significant effect on firm productivity ($\beta = 0.618$, $p < 0.05$), level of education had a positive and significant effect on firm productivity ($\beta = 0.922$, $p < 0.05$), while level of job experience had a positive and significant effect on firm productivity ($\beta = 0.688$, $p < 0.05$). The study concluded that human capital development is critical to the enhancement of productivity in the brewery industry and as such recommended that management of brewery industry should strive to facilitate a high level of training since it had a positive and significant effect on the level of productivity in the industry. Also, human resource management department in the brewery industry should endeavor to adopt a system of on-the-job training and development of staff with higher level of education and job experience, in order to build knowledge and skills relevant for adequate increase in productivity.

Keywords: Human Capital, Human Capital Development, Firm Productivity, Multiple Regression Analysis.

1.0 Introduction

The need for human capital development (HCD) in every human endeavor cannot be over-emphasized. This is because no organization can continue as an on-going entity without the effective and efficient deployment of human capital. This, therefore, suggest that the success or demise of a firm is dependent to a substantial extent on the way and manner leadership assesses, determines, and values its people in the workplace. Didin and Mochamad (2018) assert that it is not an overstatement that the most significant resource of any organization is often said to be its people. As such, human capital development is those professional initiatives and actions such as training, education, workshop, mentorship, and coaching carried out by organizations to enhance the knowledge, technical skills, abilities, and competencies of employees. The target is to increase the employees' economic value and shareholders' equity. Thus, every human endeavor requires the necessary environment in which employees can learn better, apply innovative ideas, acquire new competencies, and develop skills, behaviors, and attitudes. The practice of HCD as a policy has now become a popular phenomenon in the development of the financial policy of organizations (Adiele & Ibietan, 2017). The implication of this is that HCD has become a major managerial strategy firm use to improve their employees' economic value and firms' level of competitiveness. Prior studies suggest that five HCD variables are fast gaining currency and recognition globally. They include; training, education, job experience, acquired entrepreneurial skills, and succession planning (Rafiei, Mehrtak, Amerzadeh, Rafiei, Moosavi & Kalhor, 2023).

To enhance firms' productivity, employers should devote resources to training and other professional HCD practices (Kucharčíková, Mičiak, Tokarčíková, & Štaffenová, 2023). Conversely, to do otherwise will amount to diminishing the economic value of the employees and the resultant under-capacity utilization of firms' value (Collins, 2021). Although there is an avalanche of studies on HCD and firm productivity in the developed world,

only a few have been conducted in the brewery industry in Nigeria. Furthermore, the few conducted in Nigeria did not combine the HCD variables used in this study.

2.0 Conceptual Review

Concept of Human Capital (HC)

HC is an intangible asset that is usually not stated in a company's statement of financial position (Voca & Havolli, 2019). It is viewed as the economic value of an employee's skills and experiences. HC acknowledges that not all labor is created equal. Businesses, on the other hand, may enhance the quality of HC by spending on employees' education, talents, and experience all of which have economic worth for both employers and the whole economy. HC is valuable since it is thought to boost productivity and consequently profits (Oboreh & Aruoren, 2020). As a result, the more a firm spends on its personnel (via education and training), the more productive and successful it will be (Chandra, Julyanthry, Rahmayanti, Kusuma, & Sudirman, 2023). Again, it is frequently stated that an organization is only as good as its people. HC which include directors, workers, and executives, is crucial to an organization's success.

HC according to Nor (2016), is the aggregate of an organization's workforce's knowledge, experience, skills, and other key workforce virtues that spur performance, productivity, and the achievement of strategic goals. HC according to Afrah (2016), is the sum of individual employees' knowledge, innovativeness, skills, and ability to complete the current task. HC is best viewed as a bridging concept, defining the link between human resource approaches and firm performance rather than focusing on the business processes (Gogan, Artene Sarca & Draghici, 2016).

Human Capital Development

Prior scholars have identified level of training, education and job experience as key dimensions of HCD. HCD regards training as fundamentally crucial. Training is the acquisition of information, talents, and capacities via the instruction of professional or practical skills and abilities and knowledge which connect with certain useful skills (Thaker, 2018). Furthermore, training is frequently employed to bridge the gap between present and predicted future performance. According to Halidu (2015), training is the orderly attainment and growth of knowledge, skills, and attitudes necessary for employees to accomplish a task, job, or enhance performance in the workplace. This is consistent with Salami, Ajobo, and Okwuise (2013), who define training as the progressive realization of an individual's thoughts, information, and ability patterns necessary to do certain activity or job properly. Training provides new and existing workers with the skills required to be successful in their professions. It is of significance that scholars continue to explore the training research field and to provide justifications for why it is important (Temple, 2018).

Education is the primary factor that helps individuals to discern between good and evil, as this cannot be accomplished without it. "Education is the path to development," to put it bluntly. It is also the path to people's fate, as successes can only be achieved when individuals have the necessary knowledge, skills, and mindset. In this approach, education becomes a channel via which they could interact with other people and share their ideas. People must first master certain basic skills before they could even handle problems and be creative (Pat, 2014). Formal education or formal learning, according to Pat (2014), typically occur within the school premises, in which a person might gain fundamental, intellectual, or trade skills. Little children are usually enrolled in a nursery or preschool, but formal education typically begins in primary school and continues through secondary school. University education (or post-secondary school) is usually obtained at the university or college that awards an academic degree. It is linked to a particular stage and is delivered according to a set of rules and restrictions.

In the knowledge driven economy, the success of business is a function of many complex and dynamic variables, which include job experience, competency, knowledge, and intellectual capital. Educated and experienced people in any business are responsible for creating organizational wealth (Pinder, 2014). Thus, the capacity to make superior firm productivity and create wealth relies upon the ability of the organization to acquire experienced employees who not only ensure efficiency in the processes but also ensure that they are effective in what they do. Pinder (2014) notes that job experience, intellectual human capital and knowledge are the driving force that

generates growth of an organization by enabling effectiveness in the production processes of the organization. Job experience is considered as any skills, knowledge or experience that individual gains while working in a specific occupation or field (Kristal, Nicks, Gloor, & Hauser, 2023). From this definition, job experience does not entail the years worked but rather the skills acquired as a result of working in a specific field that are relevant for future career progression.

Furthermore, the skills and knowledge gained by the employees from the previous jobs they have done are positively related with employees' productivity. In a knowledge driven economy which is characterized by investment in human capital, job experience has significant positive effects on financial performance of organizations. Employee years of experience are considered an important consideration in many personnel policies, including compensation packages, and promotion choices, in many professions. Job experience, obtained through time, is said to improve workers' creativity, skills, knowledge, and performance (Hung, Parker & Yoong, 2019).

Firm Productivity

Interest in firms' profitability, productivity or performance has increased in recent years (Osazevbaru, Aruoren, & Okunima, 2021; Tarurhor, Aruoren, Owolabi, 2022). Organizational productivity, or the ability to successfully use strategies to achieve institutional goals, is what determines a company potential for success (Randeree and Al Youha, 2009). Tomal and Jones (2015) define organizational productivity as an organization's genuine outcomes or production as compared to its planned results. A firm's productivity can be assessed by its market share and profitability.

One of the main metrics used by businesses to assess their performance relative to rivals is market share. Piece of the pie, in any given market, refers to the amount of business or sales that a company controls relative to the total amount of business (market potential) or sales made by all of its competitors together (Acee-Eke & Gladson-Nwokah, 2018). Market share is measured by dividing the company's sales for a certain time period by the industry's total sales over the same time period (Bilal, Kalsom, Zainon, & Tareq, 2016). In many businesses, the goal of gaining market share is quite important. Market share is a measure of a company's commercial success and financial profit. Gaining more market share is one of a company's most important objectives in order to grow its operations and boost profitability. Managers are therefore always searching for ways to grow their market share. Despite being worried about their company's market share, many managers are ignorant about the factors that affect market share.

The essential objective of any business enterprise is among others to make profits, without profits a business may not be able to get by over the long haul. Profitability is the measure of a company's capacity to generate profit or make money (Nwulu, 2018). According to Ateke and Elvis (2013), a company's profitability is determined by its income and expenses. Salary refers to the money generated by the business activities of the company, whilst costs are the costs of the assets that are used or consumed by those activities. According to Nickels, McHugh, and McHugh (2011), profit is the amount of money a company makes after subtracting all expenses associated with its operations. Salaries, wages, expenses, and other running costs are examples of such costs.

3.0 Theoretical Review

The study was anchored on the human capital theory (HCT). This theory was developed by Elliot (1991), an economist. He viewed human capital in terms of the quality, not quantity, of the labour supply. HCT is related to the way in which people employed in the organization contribute their knowledge, skills and abilities to increasing the opportunities and organizational performance (Armstrong & Taylor, 2017). According to Kumar (2006), human capital is linked with entrepreneurship skills and abilities which are acquired through training, education, and work experience by helping the organization in the fulfillment of its objectives. As a result, the value of human capital to companies in the modern information society is continually increasing (Lechthaler, 2011).

The Schultz (1961) study is one of the earliest studies on the HCT and return on investment. He asserts that the investment in HC takes up the greatest portion of an enterprise's operational expenditures. Investments in HC include the costs incurred by an organization for employee internal transfers, education, training, and health care.

This investment has a favorable impact on the rise in employees' real earnings. Becker (1962) made the most contribution to the creation of HCT. According to Becker (1962), investing in one's HC through education and training is crucial. He arrived at the conclusion that many individuals in businesses boost their job productivity via education and training by picking up new skills and honing their existing ones through practical experience. As a result, making investments in HC is now crucial to sustaining and enhancing organizational performance (Bowen & Ostroff, 2004). The creation of such capital is one of the organization's most important tasks for successful human resource management. The performance and job productivity of employees are increased by investing in HC through investments in their health, education, and training. The business will become more competitive in the market and harder for competitors to copy it if it invests in growing its human resources (Kucharčíková et al, 2023).

4.0 Empirical Review

This section is devoted to a thorough scholarly review of extant empirical studies linking human capital development and firm productivity.

Training and Firm Productivity

Vincent (2020) studied the impact of training and development on employee's job performance in Nigeria. The study relied on cross sectional research design method, and findings revealed the importance of staff training and development in organizations for economic development, promotion of political stability and poverty alleviation. Sulaiman, Abdisamad, Oluwatosin and Malik (2020) investigated the effect of staff training on organizational performance in Malaysia. The study relied mainly on questionnaire and interview. The study reported that staff training improves organizational performance in Malaysia. Defri, Masdupi, & Rahmiati (2019) analyzed the effect of trainings on employee performance in Indonesia. The study controlled for work experience, self-concept and motivation. The study relied on cross sectional research design method, and sixty respondents participated. Results obtained from multiple regression analysis revealed that: (1) Training had high direct effects on performance; (2) Work motivation had a direct high (significant) effect on performance; (3) Self-concept had a direct high (significant) effect on performance; (4) Job experience had a significant effect on performance.

Voca and Havolli (2019) evaluated the linkage between Human Resources Initiatives and Small and Medium size firms in Kosovo. Findings obtained from multivariate analysis confirmed that training and development, career development and motivation of employees exerted positive and significant impact on the performance of the SMEs in Kosovo. Al-Sharafat (2017) examined the effect of human capital parameters (educational levels, trainings, staff exposure, and entrepreneurial skill) on the financial performance (return on assets, debt ratio, profit margin, and current ratio) of 119 broiler farmers in Jordan. Results obtained from multiple regression affirmed that staff trainings specifically has a high positive influence on the financial performance of Jordan agricultural sector. Sampson, Ibeh and Emerole (2016) studied the effects of human capital development (Training, Workshop, Seminar, and Skill acquisition) on staff performance. Participants were 165 employees of Abia State House of Assembly in Nigeria, and the result obtained from logistic regression revealed that training specifically improves staff performance. Similar results were obtained in Singapore (Bassi & McMurrer, 1998), Romania (Gogan, et al, 2016), Somalia (Nor, 2016). From these findings, we propose that:

HI: Level of training has a positive and significant effect on firm productivity in the Nigerian Brewery Industry.
Level of Education and Firm Productivity

Ting and Lean (2019) studied the influence of intellectual capital performance on financial institutions in Malaysia. The study affirms that education is an important driver of employees' performance. Rahim, Atan, Kamaluddin, Jaaffar, Abdullah, and Muhammad (2017) examined the human capital efficiency on firm performance in Malaysia. The study focused on 55 Malaysian technology firms. The results revealed that human educational level specifically has a high direct influence on a firm's performance. Oppong, Pattanayak, and Irfan (2019) examined the influence of human capital efficiency indicators on the performance of 33 insurance firms in Ghana from 2008 to 2016. The study adopted the multivariate regression analysis. The results confirms that human educational level specifically has a high direct influence on the insurance company's performance.

Kwarbai and Akinpelu (2016) studied the influence of human capital efficiency indicators on the performance of the Nigerian industrial sector from 2009 to 2014. The multivariate analysis was considered. The results laid claim that human educational level specifically has a high direct influence on return on assets and earnings per share. Hoang, Bui, and Nguyen (2018) conducted a survey on the effect of intellectual capital (including human capital, social capital, and organizational capital) on firm performance in 319 ICT firms. The study adopted the confirmatory factor and moderating analysis. The researchers discovered that human capital, educational levels, and social capital are strongly linked to firm performance. Smriti and Das (2018) studied the influence of intellectual capacity on the performance of 710 Indian firms from 2001 to 2016. The results indicated that employed capital efficiency, structural capital efficiency, and educational level are strong drivers of firms' performance.

Bullay (2017) examined the impacts of intellectual capacity parameters (structural capital efficiency, human capital efficiency, and capital employed efficiency) and three indicators representing firm performance (including the return on assets- ROA; return on equity- ROE; and Tobin's Q of 171 listed firms on the Saudi stock exchange from 2012 to 2014. The results revealed that educational exposure has a significantly positive impact on ROE. Humdan, Bullay and Alareeni (2017) studied the influence of intellectual capacity on the performance of 171 quoted Saudi Arabia firms from the 2012-2014. Corporate governance indicators serve as the mediating variables. The multivariate analysis was used for analysis. The study affirms that the inclusion of efficient corporate governance approach necessitates educational exposure of the board to improve firms' performance especially return on capital employed. Gottesman, and Morey (2016) empirically investigated the examination of CEO educational quality and firm performance. The study adopted multiple regression. The findings revealed that the attainment of academic degree in the relevant fields in finance leads to greater financial performance. From the results of these studies, we propose that:

H2: Level of education has a positive and significant effect on firm productivity in the Nigerian Brewery Industry. Job Experience and Firm Productivity

Gagliardi, Grinza, and Ryc (2022) adopted a longitudinal matched employer-employee to explore the impact of workers' tenure on firm productivity in Belgian firms. Findings indicate that tenure (experience) exerts stronger positive impacts on firm productivity in industrial and capital-intensive firms, as well as in firms less reliant on ICT-intensive and knowledge-intensive processes. Mutemwa, Mayhew, Colombini, Busza, Kivunaga, and Ndwiga (2018) examined the effect of work experiences on health care providers in Kenya. The study only focused on both reproductive and integrated HIV health providers in Kenya. The study implemented the multiple regression analysis. Findings revealed that work experience improves the performance of the stated health care providers in Kenya. Ahmadi, Jalilian, Salamzadeh, Saeidpour and Daraei (2017) conducted a study among Ghana companies where it was established that there exists a relationship between work experience and organizational efficiency in the attainment of goals. The study thus confirms that the efficiency of the production process was achieved because of having educated and experienced employees in the management and supervisory levels.

H3: Level of job experience has a positive and significant effect on firm productivity in the Nigerian brewery industry.

5.0 Method

Participants

The cross-sectional survey research design was adopted in this study in which the population was 7802 employees which comprises staff of Guinness Nigeria Plc., Nigeria Bottling Company Plc., Nigeria Brewery Plc., and International Breweries Plc (Table 3.1). Using Yemani (1967) formula and a 5% level of significance, a sample size of 380 was calculated from the population of 7802 employees. Furthermore, the sample was proportionately distributed among the four Breweries (Table 3.1).

Table 3.1: Employees in each Brewery Industry and Allocated Sample size

S/N	Brewery Companies	Population	Allocated sample size
1	Nigeria Breweries Plc	3200	$(3200/7802) \times 380 = 156$
2	Nigeria Bottling Company Plc	2700	$(2700/7802) \times 380 = 131$
3	Guinness Nigeria Plc	1332	$(1332/7802) \times 380 = 65$
4	International Breweries Plc	570	$(570/7802) \times 380 = 28$
Total		7802	380

Source: Human Resource Departments of Brewery Industry.

Measurement of Variables

The dependent variable (firm productivity) was measured by four items in which respondents were asked to indicate the extent to which their organization had grown within the past four years in terms of growth in sales, gross profit margin, growth in market share, and total asset turnover using a 5 point Likert scale ranging from ‘very low’ to ‘very low high’. The independent variables (level of training, education and job experience) were measured by four items each and respondents indicated the extent of agreement on a five (5) point Likert scale ranging from ‘1-Strongly Disagree’ to ‘5- Strongly Agree’.

Model Specification

The general form of the model was specified as follows:

$$FP = \beta_0 + \beta_1LTRAN + \beta_2LEDU + \beta_3LJEX + \mu \quad 1$$

Where: FP = Firm Productivity; LTRAN = Level of training; LEDU = Level of education
 LJEX= Level of job experience; β_0 = Constant term; $\beta_1 - \beta_3$ = Regression coefficients;
 μ = Error term.

6.0 Results

Response Rate

As shown in Table 4.1, 380 copies of questionnaires were distributed to respondents, however 355 completed and useful copies were retrieved yielding a response rate of 93.42 percent.

Table 4.1: Questionnaire Retrieval Analysis

S/N	Sampled Firms	No. Questionnaires Shared		No. Questionnaires Retrieved	
		Frequency	Percent (%)	Frequency	Percent (%)
1	Nigeria Brewery Plc	156	41.05	143	37.63
2	Nigeria Bottling Company Plc	131	34.47	124	32.63
3	Guinness Nigeria Plc	65	17.11	61	16.05
4	International Breweries Plc	28	7.37	27	7.11
Total		380	100	355	93.42

Source: Field Survey

Respondents’ Socio-Demographic Profile

In terms of gender, 182 (51%) respondents were males, while 173 (49%) respondents were females. This indicates that most of the respondents were males. As regards respondent’s age, 98 (28%) respondents were between 20 to 30 years, 121 (34%) respondents were between 31 to 40 years, while 136 (38%) respondents were over 40 years. This shows that most respondents were over 40 years. In terms of marital status, 161 (45%) respondents were married, 155 (44%) respondents were single, while the remaining 39 (11%) were widowed/ divorced. Thus

indicating that most respondents were married. Furthermore, 143 (40.3%) respondents were OND/NCE holders, 161 (45.3%) respondents were HND/B.Sc. holders, while 51 (14.4%) respondents were MBA/M.Sc. holders. This signals that most respondents were graduates with HND or B.Sc. degrees. Additionally, 130 (37%) respondents have worked for 1 to 5 years, 123 (35%) respondents have cognate experiences of 6 to 10 years, while 102 (28%) respondents have cognate experiences of 10 years and above. Finally, 23 (6%) respondents were in the senior cadre, 42 (12%) respondents were in the middle cadre, while 290 (82%) respondents were in the lower cadre. This indicates that most respondents were in the lower cadre of the organization.

4.3 Mean, Standard Deviation, and Correlation

Table 4.2 shows the mean, standard deviation, minimum value, maximum value as well as the correlation coefficients among the study variables (FP, LTRAN, LEDU, and LJEX). It was indicated that the mean for FP, LTRAN, LEDU, and LJEX were 4.69, 4.70, 4.62, and 4.60 respectively, while their corresponding standard deviation were 0.81, 0.84, 0.72, and 0.77 respectively. These results showed that perceptions of respondents on FP, LTRAN, LEDU, and LJEX in the Breweries Industries are not far from each other. Also, the mean values are clear indication that the respondents support all the items in the research instrument as good indicators for assessing the link between these variables. The study also demonstrated a statistically significant correlations between the study variables. The correlation coefficient between FP and LTRAN, LEDU, LJEX were 0.34, 0.53, and 0.67 respectively (Table 4.2), while the correlation between LTRAN and LEDU, LJEX were 0.41, and 0.30 respectively. Furthermore, the correlation between LEDU and LJEX was 0.21 (Table 4.2). All these correlation coefficients were positive and significant at $p < 0.05$, with none of them exceeding 0.8 as recommended by Gujarati (2003) which may indicate the absence of multicollinearity

Table 4.2: Mean, Standard Deviation, Correlation, Minimum and Maximum Value

Variable	Mean	Standard Deviation	Min	Max	FP	LTRAN	LEDU	LJEX
FP	4.69	0.81	1	5	1			
LTRAN	4.70	0.84	1	5	0.34*	1		
LEDU	4.62	0.72	1	5	0.53*	0.41*	1	
LJEX	4.60	0.77	1	5	0.67*	0.30*	0.21*	1

Source: Researchers' Compilation * $p < 0.05$; FP = Firm Productivity; LTRAN = Level of training; LEDU = Level of education; LJEX = Level of job experience

Testing of Hypotheses

Tables 4.3, 4.4, and 4.5 shows the multiple regression results for testing of the hypotheses. The R-square value of 0.664 in Table 4.3 indicates that the dimensions of HCD (LTRAN, LEDU, and LJEX) explained 66.4% in the variation in FP. It was also revealed that a significant relationship existed between the dimensions of HCD (LTRAN, LEDU, and LJEX) and FP ($F = 46.963$; Prob. $f = 0.00 < 0.05$). The D-Watson test check was to determine if there exist serial auto correlation in the series, the benchmark for D-Watson test is 2. Hypothesis one (H1) proposes that 'Level of training has a positive and significant effect on firm productivity in the Nigerian Brewery Industry. As shown in Table 4.5, H1 cannot be rejected since the regression result shows a t-ratio = 3.652, $p = 0.001 < 0.05$, $\beta = 0.438$. Hypothesis two (H2) proposes that 'Level of education has a positive and significant effect on firm productivity in the Nigerian Brewery Industry. As shown in Table 4.5, H2 cannot be rejected since the regression result shows a t-ratio = 13.221, $p = 0.000 < 0.05$, $\beta = 0.819$. Furthermore, hypothesis three (H3) proposes that 'Level of job experience has a positive and significant effect on firm productivity in the Nigerian brewery industry. As shown in Table 4.5, H3 cannot be rejected since the regression result shows a t-ratio = 6.029, $p = 0.000 < 0.05$, $\beta = 0.182$.

Table 4.3: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.815	.664	.650	.31296	.664	46.963	5	347	.000	2.068

a. Predictors: (Constant), LTRAN, LEDU, LJEX,

b. Dependent Variable: FP

Table 4.4: Analysis of Variance

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	328.254	5	65.651	246.885	.000 ^b
	Residual	92.805	349	.266		
	Total	421.059	354			

a. Dependent Variable: FP

b. Predictors: (Constant), LTRAN, LEDU, LJEX

Source: Statistical Package of Social Science Version 23.0.

Table 4.5: Ordinary Least Square (OLS) Results Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	5.230	2.150		2.432	.016
	LTRN	.618	.169	.438	3.652	.001
	LEDU	.922	.070	.819	13.221	.000
	LJEX	.688	3.780	.182	6.029	.000

Source: Researchers' Compilation

7.0 Discussion of Findings

The regression analysis in Table 4.5 indicates that level of training (LTRAN) has a positive and significant effect on firm productivity (FP). This indicates that a 1% increase in the LTRAN leads to a consistent rise of 43.8% in FP of the selected brewery industry in Nigeria. The implication of this finding is that LTRAN gives the trainees the ample opportunity of learning new set of skills, values, and competencies to equip them to undertake the task that is beneficial to the firm. This result affirms the findings of Vincent (2020), Sulaiman et al. (2020), and Defri et al. (2019). Also, the regression analysis in Table 4.5 indicates that the level of job experience (LJEX) has a positive and significant effect on firm productivity (FP). This indicates that a 1% increase in LJEX leads to an increase of 18.2% in FP in the selected brewery industry in Nigeria. The implication of this findings is that the ability to increase firm productivity relies upon the ability of the organization to acquire experienced employees who not only ensure efficiency in the processes but also ensure that they are effective in what they do. This finding is in tandem with the works of Samsul & Arif (2020), Mutemwa et al. (2018), and Ahmadi et al. (2017). Furthermore, the regression analysis in Table 4.5 indicates that the level of education (LEDU) has a positive and significant effect on FP. This indicates that a 1% increase in LEDU leads to an increase of 81.9% in FP in the selected brewery industry in Nigeria. This result illustrates that when an organization places much emphasis on education, employees' efforts will translate to better products and more effective ways of carrying out task. This will re-engineer productivity, profitability and sustainability of the firm. This result concur with Ting & Lean (2019), Rahim et al. (2017), and Oppong et al. (2019).

8.0 Conclusion

This study concludes by affirming that the level of training had a significant positive effect on firm productivity in the selected brewery industry in the south-south and south-east geo-political zones of Nigeria. If industries consistently invest in their employees through training, employees gain knowledge, skills, and competencies making the organization improve its level of firm productivity. Also, the study concludes that employees' level of job experience and level of education positively influences firm productivity.

9.0 Recommendations

In line with the findings and the conclusion of the study, the following recommendations were made:

- i. The management of brewery industry should strive to facilitate a higher, systematic and continuous training since it had a positive and significant effect on the firm productivity in the industry.
- ii. Human resource management department in the brewery industry should endeavor to adopt a system of drawing, development and deployment of staff with higher level of education in order to build knowledge, skills and competencies' relevant for adequate increase in firm productivity.
- iii. Policy makers in the Nigerian Brewery industry should formulate and implement policies of hiring experience employees because it had a positive and significant effect in firm's productivity.

References

1. Acee-Eke, B.C., & Gladson-Nwokah, J. (2018). Understanding the Dynamics of Eco-Product Labeling Strategy for Marketing Success in Quoted Food and Beverages Firms in Nigeria. *RSU Journal of Strategic and Internet Business*, 3(1), 32-49.
2. Adiele, G. N., & Ibietan, J. (2017). Manpower training and productivity in the Nigerian public sector: An appraisal and human capital discourse. *International Journal of Innovative Development & Policy Studies*, 5(3), 1-15.
3. Afrah, N. A. (2016). The Role of Human Capital Development on Organizational Performance: Case Study Benadir University, Mogadishu, Somalia. *European Journal of Business and Management*, 8(4) 120-124.
4. Ahmadi, A. A., Jalilian, H. J., Salamzadeh, Y., Saeidpour, B. & Daraei, M. (2017). Intellectual Capital and New Product Development Performance in Production Firms: A Case Study of Kermanshah Production Firms. *Global Business and Management Research: An International Journal*, 4(1), 15-27.
5. Al-Sharafat, A. (2017). The impact of human capital development on financial performance of agricultural enterprises: Application on broiler industry. *International Journal of Business and Social Science*, 8(3), 179-186.
6. Armstrong, M., & Taylor, S. (2017). *Armstrong's Handbook of Human Resource Management Practice* (14th Ed.). London: Kogan Page.
7. Ateke, B. W. & Elvis, I. C. (2013). Positioning in corporate Nigeria: How Nigerian organizations compete for a share of the consumers' mind. *African Social and Policy Journal*, 5(3), 49-55.
8. Bassi, L.J., & McMurrer, D.P. (1998). Training Investment Can Mean Financial Performance. *Training & Development*, 52, 40-42.
9. Becker, B. (1962) Investment in Human Capital: A Theoretical Analysis. *Journal of Political Economy*, 70(5), 40-49.
10. Bilal, C, J., Kalsom, A. N., Zainon, G. E. & Tareq, R. (2016). The role of green marketing strategy on firm's sales growth. *Journal of Psychology and Sociology*, 15(3), 203-210.
11. Bowen, D. E., & Ostroff, C. (2004). Understanding HRM-Firm performance linkages: the role of the "strength" of the HRM system. *Academy of Management Review*, 29(2), 203-221. <https://doi.org/10.2307/20159029>
12. Buallay, A. M. (2017). The relationship between intellectual capital and firm performance. *Corporate Governance and Organizational Behavior Review*, 1(1), 32-41. http://doi.org/10.22495/cgobr_v1_i1_p4
13. Chandra, E., Julyanthry., Rahmayanti, P.L.D., Kusuma, C.S.D., & Sudirman, A. (2023). Analyzing Business Performance from Human Capital and Social Capital with Competitive Advantage as Mediating Variable. *International Journal of Economics, Business and Management Research*, 6(11), 137-151. [doi:](https://doi.org/10.21909/ijebmr.v6i11.137-151)

- [10.51505/IJEBMR.2022.61110](#)
14. Collins, C.J. (2021). Expanding the resource based view model of strategic human resource management, *The International Journal of Human Resource Management*, 32(2), 331-358. [DOI: 10.1080/09585192.2019.1711442](#)
 15. Defri, A., Masdupi, E., Rahmiati, R. (2019). The effect of training, motivation, self-concept, and work experience on the performance of wali Nagari. *Advances in Economics, Business and Management Research*, 124, 696-705. [DOI: 10.2991/aebmr.k.200305.135](#)
 16. Didin, F., & Mochamad, M. (2018). How measuring financial performance affects firms. *International Journal of Civil Engineering and Technology*, 9(6), 26-48.
 17. Elliott, J. (1991). *Action Research for Educational Change*, Open University Press: Milton Keynes (published in Spain by Morata: Madrid).
 18. Gagliardi, N., Grinza, E., & Ryc, F. (2022). Workers' tenure and firm productivity: New evidence from matched employer-employee panel data. *Industrial Relations: A Journal of Economy and Society*, 62(1), 3–33. [DOI: 10.1111/irel.12309](#)
 19. Gladson-Nwokah, J. & Acee-Eke. B. C. (2019). Eco-product packaging and marketing performance: a study of quoted food and beverages firms in Nigeria. *RSU Journal of Office and Information Management*, 3(1), 29-40. [DOI No. : 10.24940/ijird/2019/v8/i1/JAN19039](#)
 20. Gogan, L. M., Artene A., Sarca I., & Draghici, A. (2016). The impact of intellectual capital on organizational performance. *Procedia-Social and Behavioral Sciences*, 2(2), 31-42. <https://doi.org/10.1016/j.sbspro.2016.05.106>
 21. Gottesman, A., & Morey, M.R. (2006) Does a Better Education Make for Better Managers? An Empirical Examination of CEO Educational Quality and Firm Performance. *Pace University Finance Research Paper No. 2004/03*. <http://dx.doi.org/10.2139/ssrn.564443>
 22. Gujarati, D.N. (2003). *Basic Econometrics* (4th Edition). Boston: McGraw Hill.
 23. Halidu, S. G. (2015). The impact of training and development on workers' productivity in some selected Nigerian universities, *International Journal of Public Administration and Management Research*, 3(1), 10-16. Retrieved from <https://journals.rcmss.com/index.php/ijpamr/article/view/412>
 24. Hoang, T.N., Bui, Q.T., & Nguyen, V.P. (2018). The impact if intellectual capital dimensions on Vietnamese information communication technology firm performance: A mediation analysis of human and social capital. *Academy of Strategic Management Journal*, 17(1), 1-15.
 25. Humdan, A.M., Buallay, A.M. & Alareeni, B.A. (2017).The moderating role of corporate governance on the relationship between intellectual capital efficiency and firm's evidence from Saudi Arabia. *International Journal of Learning and Intellectual Capital*, 14 (4), 295-318. [DOI: 10.1504/IJLIC.2017.087377](#)
 26. Hung, A., Parker, A.M., & Yoong, J.K. (2019). Defining and measuring financial literacy. *RAND Working Paper Series WR-708*.
 27. Kristal, A.S., Nicks, L., Gloor, J.L., & Hauser, O.P. (2023). Reducing discrimination against job seekers with and without employment gaps. *Nature Human Behaviour*, 7, 211–218 (2023). <https://doi.org/10.1038/s41562-022-01485-6>
 28. Kucharčíková, A., Mićiak, M., Tokarčíková, E., & Štaffenová, N. (2023). The Investments in Human Capital within the Human Capital Management and the Impact on the Enterprise's Performance. *Sustainability*, 15, 5015. <https://doi.org/10.3390/su15065015>
 29. Kumar, C.S. (2006). Human Capital and Growth Empirics. *The Journal of Developing Areas*, 40(1), 153-179.
 30. Kwarbai, J. D., & Akinpelu, M. A. (2016). Human capital efficiency and corporate performance: The Nigerian perspective. *International Journal of Business and Management*, 4(3), 32-56.
 31. Lechthaler, W. (2011). Firm Training and Capital Taxation. *Journal of Institutional and Theoretical Economics*, 1(1), 1-10.
 32. Mutemwa, R., Mayhew, S., Colombini, M., Busza, J., Kivunaga, J., & Ndwiga, C. (2018). Work Experiences on health care providers with integrated HIV and reproductive health services in Kenya: a qualitative study. *BMC health services research*, 13(1), 18. [doi:10.1186/1472-6963-13-18](#)
 33. Nickels, G., McHugh, J. M., & McHugh, S. M. (2011). *Understanding business*. 9th Edition. New York: Irwin McGrawHill.
 34. Nor, A.A. (2016). The Role of Human Capital Development on Organizational Performance: Case Study Benadir University, Mogadishu, Somalia. *European Journal of Business and Management*, 8(4), 120-124.

35. Nwulu, C. S. (2018). Customer service management and marketing performance of food and beverage manufacturing firms in Nigeria. *International Journal of Social Sciences and Management Research*, 4(8), 79-89.
36. Oboreh, J., & Aruoren, E.E. (2020). Effect of Creativity on Human Capital Development of Nigeria Graduates Entrepreneurs. *Academy of Entrepreneurship Journal*, 26(3), 1-9.
37. Oppong, G., Pattanayak, J., & Irfan, M. (2019). Impact of intellectual capital on productivity of insurance companies in Ghana. *Journal of Intellectual Capital*, 20(6), 763–783. <https://doi.org/10.1108/JIC-12-2018-0220>
38. Osazevbaru, H.O., Aruoren, E.E., & Okunima, P. (2021). Measuring the Effect of Working Capital Management on Firms' Profitability: Evidence from Quoted Nigerian Companies. *International Journal of Management*, 12(3), 736-743. DOI: 10.34218/IJM.12.3.2021.071
39. Pat, M. (2014). *National Policy for Education*, (4th ed.). Lagos: NERDC Publishers.
40. Pinder, C. C. (2014). *Work motivation in organizational behaviour*. New York: Psychology Press.
41. Rafiei, S., Mehrtak, M., Amerzadeh, M., Rafiei, S., Moosavi, S., & Kalhor, R. (2023). The relationship between succession and intellectual capital with entrepreneurship in hospitals. *BMC Health Services Research*, 23(1), 474. doi: 10.1186/s12913-023-09435-2.
42. Rahim, A., Atan, R., Kamaluddin, A., Jaaffar, M. Y., Abdullah, Sani, A., & Muhammad, A. (2017). Human capital efficiency and firm performance: An empirical study on Malaysian technology industry. *SHS Web of Conferences*, 36(00026), 1-11. <https://doi.org/10.1051/shsconf/20173600026>
43. Randeree, K. & Al Youha, H. (2009). Strategic management of performance: an examination of public sector organizations in the United Arab Emirates. *International Journal of Knowledge, Culture and Change Management*, 9(4), 123-134. DOI: 10.18848/1447-9524/CGP/v09i04/49722
44. Salami, C.G.E., Ajobo, R.T. & Okwuise, U. Y. (2013). *Human resource management: harnessing the most important resource for organizational effectiveness in the 21st century*. Benin: Most Venture Publishers.
45. Sampson, C.J., Ibeh, G.O. & Emerole, G. A. (2016). Effect of Human Capital Development Programmes in optimizing employees' performance. A study of Abia State House of Assembly, Nigeria. *Singaporean Journal of Business Economics and Management Studies (SJBEM)*, 5(4), 15-29.
46. Schultz, T.W. (1961). Investment in Human Capital. *The American Economic Association*, 51(1), 1-17. Available on: <http://www.jstor.org/pss/1818907>
47. Smriti, N., & Das, N. (2018). The impact of intellectual capital on firm performance: A study of Indian firms listed in COSPI. *Journal of Intellectual Capital*, 19(5), 935–964. <https://doi.org/10.1108/jic-11-2017-0156>.
48. Sulaiman, E. N., Abdisamad, I. M., Oluwatosin, S. A., & Malik, A. A. (2020). Academic Staff Training Transfer and Its Impact on Organizational Performance; *Humanities & Social Sciences Reviews*, 8(2), 993-1001. DOI: 10.18510/hssr.2020.82110
49. Tarurhor, E.M., Aruoren, E.E., & Owolabi, A.A. (2022). Inventory Management and Firms Performance of Listed Manufacturing Firms in Nigeria. *Innovations*, 68(4), 548-560.
50. Temple, O. A. (2018). Effect of training on Employee performance. *Academy of Management Review*, 15(1), 22-40.
51. Thaker, M. A. B. (2018). A qualitative inquiry into cash waqf model as a source of financing for micro enterprises, *ISRA International Journal of Islamic Finance*, 10(1), 19-35. <https://doi.org/10.1108/IJIF-07-2017-0013>
52. Ting, L. W. K., & Lean, H. H. (2019). Intellectual capital performance of financial institutions in Malaysia. *Journal of Intellectual Capital*, 10(4), 588–599. <https://doi.org/10.1108/1469193091099666>
53. Tomal, D. R. & Jones, K. J. (2015). A comparison of core competencies of women and men leaders in the manufacturing industry. *The Coastal Business Journal*, 14(1), 13-25. Available at: <https://digitalcommons.coastal.edu/cbj/vol14/iss1/2>
54. Vincent, M. (2020). Impact of Training and Development on Employee Job Performance in Nigeria: *Saudi Journal of Humanities and Social Sciences*, 5(5), 265-268. DOI: 10.36348/sjhss.2020.v05i05.004
55. Voca, Z., & Havolli, Y. (2019). The Impact of Human Resources Development on Small and Medium Enterprises (SMEs) Performance. *Journal of Economics and Management Sciences*, 2(2), 45-54. DOI:10.30560/jems.v2n2p45.
56. Yamane, T. (1967). *Statistics: An Introductory Analysis* (2nd Ed). New York: Harper and Row