

## Human Capital Accounting And Performance Of Nigerian Brewery Plc.

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### **Abstract**

*The study examines the effect of human capital accounting on the performance of Nigerian Brewery PLC for the period between 2006 to 2020. Human capital accounting (Independent variable) was proxied with training and development cost, health and safety cost and Gross cost while performance (dependent variable) was process with Net profit. The data for the variables were obtained from the company annual financial statement and Nigerian Stock Exchange report, ordinary least squares (multiple regression) regression technique was used to analysis the data with the use of Statistical Package for social science (SPSS). The result of the analysis shows that training and development have positive and significant relationship with Net profit. In the case of effect of health and safety on net profit, the result also shows a positive and insignificant relationship. The probability value of training and development is less than 5% significant value. But in the case of health and safety on net profit, the probability level was more than 5%. In the case of effect on Gross cost on net profit the result shows a negative effect on net profit since the t-statistical value shows a negative value of -2.816. In conclusion, training and development together with health and safety have positive effects on net profit, but gross cost have negative effect. Therefore, I recommend that management should priortise training and development together with health and safety. Management should be mindful of excessive spending on Gross cost as increase on it will have negative effect on net profit.*

## **Introduction**

The success of corporate undertakings, in today's competitive business world largely depends on the quality of human resources; therefore human capital is recognized as a vital asset, value creator, and a key source of competitive advantage. As a result of the worsening economic activity all over the world and the saturation of the job market, human capital is getting more attention globally. Qualified and dedicated workers are relied upon by the companies for optimum performance but their contribution to performance is often belittled in a sketchy one-sentence remark stated in the board chairman's statement in most annual reports. This is why the statement "our greatest assets are our people" is declared in most companies' annual reports (Enofe, Sunday &Ovie, 2013). An examination of financial accounting information sees wages and salaries as the only direct evidence of people in the accounting process. The annual report of many organizations emphasize that their greatest assets are the people (i.e. the employees) but are not treated as such in the books of account; rather all money spent on human resources in the organization is expensed (Micah, Ofurum&Ihendinhu, 2012).The costs incurred; such as expenses on recruitment placement, selection, training, hiring, acquisition, promotion, salaries, wages, bonuses, allowances, health care, etc. generates benefits far beyond the current accounting period and which in turn leads to employees adding tangible and lasting values to the organisation (Ijeoma&Aronu 2013).

The conceptual framework of International Accounting Standard Board (IASB) defines an asset as a resource controlled by an entity as a result of past event and from which future economic benefits can flow into the entity. Since an asset can generate benefits exceeding the current financial year then expenses incurred to train and develop employees also qualifies to be an asset and should be recognised in the books of accounts.(Enyi&Akindehinde, 2014). Human resource considered as part of organizations' assets are not treated as such in the organization's financial statement and this implies that these financial statements are not showing a true reflection of the state of affairs in the organizations. Such financial statements could rightly be said to be misleading since a financial statement is one of the decisions making tools of its users, it implies that whatever decisions made based on them would equally be affected by its false nature (Enyi&Akindehinde, 2014). The application of knowledge, skill and energies which leads to profitability and productivity is achieved by the human resources (HR) possessed by an organization hence it is one of the most important asset in an organization. Organisations make timely, effective and efficient decisions when driven by the intellectual capacity of the human capital which in turn endure survival and success in the face of stiff competitions (Enyi and Akindehinde, 2014). Micah, Ofurum, and Ihendinihu (2012) define Human capital "as the energies, skills, talents and knowledge of people which are, or which potentially can be applied to the production of goods or rendering useful services". Human Capital Accounting is the measurement process which recognizes cost and value of employees in the financial statements of an organization as an intangible assets, so that the true value of the organization can be established thereby assisting the various users of the financial statements in making their respective decisions (Abubakar, 2009).

## **Statement of the problem**

The statement of financial position of some companies reveals that the enormous sums spent on the development, training and welfare of employees are not treated as investment instead such costs are expensed for the period thereby reducing the company profit and value. The major challenge is how to evaluate the economic value and worth of the 'people' to the organization and how the cost measurement is to be ascertained. According to Fajana (2002), a well-developed system of human capital accounting could contribute to internal decision by management and external decisions by investors. Rao (2000) states that potential investors can easily determine which company to invest by examining the strength of human assets utilized.

For example, information on human capital can help investors decide which company to choose for investment if two companies have the same investment decision tools e.g. earnings per share. In essence, human capital can be a distinguishing decision tool because it is the human power that translates other factors to productivity. (Rahaman, Hossian and Akter (2013) proposed that the main obstacle for reporting human capital externally is that the information reported could be sensitive to the reporting companies and regarded as something that should not be shared externally because the information may give important insight to competitors or could lead to a negative interpretation on the part of the various stakeholders. This accounts for why some organisations are unwilling to disclose the information on human capital in order to keep the competitive edge over competitors and so as not to de-motivate employees that might think they were undervalued. Only few countries like United States, Mexico, India, Canada and Denmark have started implementing it since there is yet to be an accounting standard recognising the treatment and reporting of human capital in financial statement. Still, the concept of Human Capital Accounting is yet to be globally accepted. Also, the possibility of measuring employees (humans) in terms of worth, qualification, ability, energy and other features is a major constraint in the acceptability of the concept. Another drawback is the fact that it is hard to predict how long an employee will stay with an organisation. This makes it difficult to measure and determine the value that will be contributed for more than a year. As reported by (Meshack, Paymaster and Lyndon (2013), various scholars have proposed different methods of valuing Human Resources, some of which are the original cost method by Brumment; the replacement cost method by Likert; and the present value method by Flamholtz, Bullen, and Hua but none of the methods is yet to be globally accepted. Hopefully, study and researches working for the introduction of HCA into books of account and the standard setting bodies in accounting will formulate a standard to address the measurement, recognition and disclosure of Human Resources. Many authors and scholars have conducted researches on how human capital within an organizations can be valued and reported in the financial statements of companies (Flamholz, Bullen&Hua, 2002). From the cited studies shown above, I discovered that none of them used health and safety as a proxy for human capital cost and none of the studies used brewery company. This study was also scheduled to 2020, which makes it mere recent than earlier studied in the area.

### **Objectives of the study**

The main objective of this study is to examine effect of human resource cost on financial performance of Nigerian Brewery PLC. The specific objectives are as follows:

1. To ascertain the effect of Training and Development Cost on the profitability of Nigeria Brewery.
2. To determine the effect of Health and Safety Cost on the profitability of Nigeria Brewery.
3. To examine the effect of Gross Cost on the profitability of Nigeria Brewery

### **Literature review**

#### **Concept of human capital accounting**

While the realization of a company's potential to create value is increasingly emphasized, Ashton (2005) observed in his paper Intellectual Capital and Value Creation that there appears to be a marked shift in emphasis towards the "intangible value drivers" in place today that will position the firm for value realization tomorrow. Ashton concluded that the Skandia Navigator and related framework have sometimes served as a foundation for external reporting of non-financial information, and with that understanding it may be useful for not only understanding value creation (and value creation research), but also for communicating value creation. Akintoye (2005) opined that essential accumulation of goodwill in firms can be a function of a well managed business environment by well experienced managers who have spent enough time to understand organizational policies, politics and ethical values.

From the above assertions, it can be said that human element is one of the most valuable inputs in an organization. A team of competent, devoted and motivated persons can convert a sick concern into a successful one. Bullen and Eyler (2010) state that Human Resource Accounting involves accounting for expenditure related to human resources as assets as opposed to traditional accounting which treats these costs as expenditures than profit. Accounting is the systematic accumulation of information about changes in investments made in human resources and reporting back that information to operating managers in order to assist them to make better decisions than they would have been able to make without such additional information (Enyi&Adebawojo, 2014).

### **Human resource as an asset**

Scholars have not always been in complete agreement as to the concise meaning of the terminology; Asset. Therefore a brief review is necessary to discover what criteria are relevant to the concept of an asset. Based on various researches on human resources, it has been accepted that an organizations' employees are measurable assets of the business which must be valued and shown as firms' asset in its statement of financial position. Now the contention is "can a human be treated as an asset?" According to scholars and HRA experts, the HR valuation is unsuccessful. This is because, they consider that treating people as assets is incorrect (Mayo, 2004). According to Pyle and White, a business asset is an economic resource which belongs to the business or of which the business is the owner. For an asset to belong to anyone, the legal ownership is necessary. In that sense, the business has no ownership right on people working in the business hence Human Resource (HR) are not assets. However, in accounting sense, the meaning of asset does not strictly emphasize ownership. In fact, an asset according to American Accounting Association is an expense from which benefits are expected to be derived in the future. From this point of view, people working with the organization are assets because future benefits are likely to arise from them, though the business do not have ownership rights over them. In the sense, HR are business assets. Another objection to treat human resource as an asset is that, the value of the asset can be verified at the time of audit. In that sense, it is not possible to evaluate the value of human being with reasonable accuracy. This is based on the logic that other physical assets can be valued. However, this logic is not correct. Even in the cases of other physical assets, the valuation is often found to be subjective and their value is an estimate only. If the values of physical asset may differ from person to person, why should people not be treated as an asset? It is therefore established that HR is also a business asset just like other physical asset.

### **Human capital accounting**

Human Capital Accounting is a way of quantifying the efficacy of personnel management operations and the usage of people in an organization, according to Raghav (2011). According to Parameswaran and Jothi (2011), human resources accounting is defined as the measurement and communication of human resource data to interested parties, as defined by the American Accounting Association. According to the numerous definitions above, human capital accounting is simply accounting for the worth of people in a company in order to improve the financial standard of the company and information for users of financial information to make better decisions. Therefore human capital cost includes the following variables;

### **Staff gross costs**

Staff Gross Cost or Salary is the entire payment paid to employees by the employer in cash or in kind in exchange for their services during the accounting period, regardless of when they are paid (Landefeld, Moulton, Platt & Villones, 2010). As a result, the treatment of compensation is consistent with the System of National Accounts 2008 recommendation, which states that compensation should reflect total remuneration and be calculated on an accrual basis. The wages of employees are included in Staff Cost, but not the profits of self-employed people.

Wages and salaries, as well as supplements to wages and salaries, make up an employee's pay. Wages and salaries, which generally accounts for over 80 percent of compensation, consists of cash remuneration of labor (including sick or vacation pay, severance pay, commissions, tips, and bonuses), and in-kind remuneration of labor such as transit subsidies and meals. It is also the money employers pays employee before any deductions are taken out. It includes all overtime, bonuses and reimbursements from employers.

### **Training and development cost**

Training and development plays a vital role in human capital development. Workforce that lacks training is related to low competitiveness (Green, 1993). Also, a greater human capital stock is associated with greater productivity and higher salaries (Mincer, 1997). Likewise, training is linked to the longevity of companies (Bates, 1990) and greater tendency to business and economic growth (Goetz & Hu, 1996). Doucouliagos (1997) asserts that human capital as a source not only to motivate workers and boost up their commitment but also to create expenditure in research and development and eventually pave way for the generation of new knowledge for the economy and society in general. Also, for small business it is an asset, which is positively associated with business performance. Finally, investment in training is desirable for both personal and social perspective. From the organizational level, human capital plays an important role in the strategic planning on how to create competitive advantages. Subsequent to the work of Snell, Lepax and Youndt (1999), it stated that a firm's human capital has two dimensions which are value and uniqueness. Firm indicates that resources are valuable when they allow improving effectiveness, capitalizing on opportunities and neutralizing threats. In the context of effective management, value focuses on increasing profits in comparison with the associated costs. In this sense, firm's human capital can add value if it contributes to lower costs and provide increased performances. The human capital theory has undergone a rapid development. Within its development, greater attention has been paid to training related aspects. This is much related to the individual perspective. Human capital investment is any activity which improves the quality (productivity) of the worker. Therefore, training is an important component of human capital investment. This refers to the knowledge and training required and undergone by a person that increases his or her capabilities in performing activities of economic values. Seleim, Ashour, and Bontis (2007) asserts that training attended and team work practices, tended to result in superstar performance where more productivity could be translated to organizational performances and enhances the quality of developers and volume of market shares (Dooley, 2000).

### **Health and safety cost**

Management is after all the creation and maintenance of an environment. Therefore, it is a vital function of an employer to provide an atmosphere to the employees to perform their work in healthy, congenial climate conducive for good health and high morale. The expenses incurred for this purpose will facilitate the employee to increase the quality of their civic life.

### **Financial performance**

In general, one of the primary determinant elements that are commonly utilized in measuring the success or failure of businesses is performance. Although various studies have been conducted on performance-related issues as they affect organizations or enterprises, academics have found it difficult to define it. Performance is perhaps the most extensively utilized dependent variable in organizational research today, according to Roger and Wright (1998), but it is also one of the most ill-defined conceptions. They also confirmed that the debate to define what performance means has been going on for a long time and is not restricted to the field of strategic Human Resources. Gavrea, Ilies and Stegorean (2011) confirmed the fact that defining organizational performance has been very challenging to researchers because of its many meanings.

Gavrea, Ilies and Stegorean (2011) further noted several other definitions of performance as highlighted by Lebens and Zuske (2006), this included defining performance as a set of financial and non financial indicators which offer information on degree of achievement of objectives and results. For an organization to effectively and efficiently achieve its goals and objectives, human asset should be considered as a germane factor contributing to organization's performance.

The performance of an organization could be categorized into human resource which could be measured in terms of turnover; organizational category which could be measured in terms of productivity, quality, customer satisfaction and manufacturing flexibility; financial accounting category which could be measured in terms of return on assets (ROA), return on equity (ROE), profits margin, sales, and employee value; while the financial market category could be measured in terms of stock prices or the measure of the ratio of the market value of the firm's assets to their replacement cost in line with the Tobin's Q (Rogers & Wright 1998). This is the percentage of revenue remaining after all operating expenses, interest, taxes and preferred stock dividends (but not common stock dividends) have been deducted from a company's total revenue. The net profit margin, also known as net margin, indicates how much net income a company makes with total sales achieved. A higher net profit margin means that a company is more efficient at converting sales into actual profit. Net profit margin analysis is not the same as gross profit margin. Under gross profit, fixed costs are excluded from calculation. With net profit margin ratio all costs are included to find the final benefit of the income of a business. Similar terms used to describe net profit margins include net margin, net profit, net profit ratio, net profit margin percentage, and more. To calculate net profit margin and provide net profit margin ratio analysis requires skills ranging from those of a small business owner to an experienced chief finance officer (CFO). As a result, this depends on the size and complexity of the company. Return on assets (ROA) is an indicator of how profitable a company is relative to its total assets. ROA gives a manager, investor, or analyst an idea as to how efficient a company's management is at using its assets to generate earnings. Return on assets is displayed as a percentage and it's calculated as:  $ROA = \text{Net Income} / \text{Total Assets}$ .

In basic terms, ROA tells you what earnings were generated from invested capital (assets). ROA for public companies can vary substantially and will be highly dependent on the industry. This is why when using ROA as a comparative measure, it is best to compare it against a company's previous ROA numbers or against a similar company's ROA. Remember that a company's total assets are the sum of its total liabilities and shareholder's equity. Both of these types of financing are used to fund the operations of the company. Since a company's assets are either funded by debt or equity, some analysts and investors disregard the cost of acquiring the asset by adding back interest expense in the formula for ROA. In other words, the impact of taking more debt is negated by adding backs the cost of borrowing to the net income, and using the average assets in a given period as the denominator. Interest expense is added because the net income amount on the income statement excludes interest expense. An analyst that chooses to ignore the cost of debt will use this formula:  $ROA = (\text{Net Income} + \text{Interest Expense}) / \text{Average Total Assets}$

### **Empirical review**

Okpala and Chidi (2010) carried out a study on human resource capital accounting and how it could contribute significantly to internal decision by management and external decisions by investors. Information on investment and value of human resources is useful for decision making in the enterprise. Thus they concluded in their study that human capital accounting is highly significant to investor in making relevant investment decisions and that the inclusion of human capital accounting in financial reporting is desirable to aid investors in making rational decisions.

They also recommend the need to address the issues of human capital development at both the micro and macro levels and that human capital value should be included in the balance sheet of Nigeria organizations to aid investment decisions. Fariborz and Raiasheka (2011) conducted a study on human resources accounting (HRA) disclosures in financial statements and discovered that the use of HRA information in financial statement has incremental impact on individuals' decision-making process in order to stock investment statistically. Using regression analysis, their result also revealed that HRA information can play a critical role in internal managerial decision making and its measures can be used to show that investment in company's human resources may result in long-term profit for the company. Sarminah, (2013) examined the relationship between human capital and business performance. Data in the study was collected from a sample of 390 managerial staff in Malaysian logistics companies based on stratified random sampling. The obtained data were analyzed using SPSS Version 20. Using regression analysis, the study found that human capital aspects are related to business performance. The findings indicated that human capital aspects of employees' competency and creativity emerged as the main factor that influenced business performance. Findings, implications and recommendations for future research from this study are discussed. Cherian and Sherine, (2013) ascertain the effect of human resource accounting and organizational performance. Human Resources are important assets of an organization. However, there is no legal regulation for accounting human resources in any of the organization's annual report. The main aim of this review is to study the benefits of HR practices to the firm. Their review highlights the theoretical definitions for HRA and challenges faced during implementation of HRA measurement models to predict the organization's performance. Human Resource Accounting helps to calculate the human resource capital, worth of management development, and enhances the value of management accounting.

Oluwatoyin, (2011) carried out a study on human capital investment and economic growth in Nigeria: the role of education and health. Even though there are different perspectives to economic growth, there is a general consensus that growth will lead to a good change manifested in increased capacity of people to have control over material assets, intellectual resources and ideology, and obtain physical necessities of life like food, clothing, shelter, employment, e.t.c. This is why some people have argued that the purpose of growth is to improve peoples' lives by expanding their choices, freedom and dignity. This study made use of the Unit Root and Augmented Dickey Fuller (ADF) tests and found out that a positive relationship exists between government expenditure on education and economic growth while a negative relationship exists between government expenditure on health and economic growth. Akinyomi and Olagunju, (2013) conducted a study on the effect of firm size on profitability: evidence from Nigerian manufacturing sector. The data collected were analyzed and tested with regression analysis. However the results of these prior studies have been inconsistent and controversial, thus calling for further investigation. Return on assets (ROA) was used as a proxy for profitability while log of total assets and log of turnover were used as proxies for firm size. Furthermore, liquidity, leverage and the ratio of inventories to total assets were used as the control variables. The results of the study revealed that firm size, both in terms of total assets and in terms of total sales, has a positive effect on the profitability of Nigerian manufacturing companies. Okpako, Atube and Olufawoye (2014) conducted a research work on human resource accounting and firm performance to determine the relationship between human resource accounting and firm performance. This paper conducted a survey on seven (7) companies quoted on the Nigeria Stock Exchange. The study used primary data, 260 questionnaires were distributed and 246 questionnaires were retrieved on the companies targeted at the staffs of human resource, accounting, and audit/internal control departments which were considered to be the relevant departments for this study.

Following the collection of completed questionnaires, the study adopted the principle component analysis to quantify the responses obtained so as to obtain a series which captured the composite value of the human resource accounting variable. The study reveals that human resource accounting variables impacted positively to the level of firm performance. Ibok and Ibanga (2014) conducted a study on the impact of human capital development and economic empowerment on the socio-economic development of AkwaIbom state and discovered that, in addition to training, the government also launched elaborate empowerment programs that have assisted many people in becoming self-employed or labor employers. In order to allocate data, the study used a historical and descriptive approach. The study found that, from 1999 to 2012, the government, as the economy's primary engine, had a favorable impact on the training and retraining of public sector employees. Edom, Usang and Eyisi, (2015) examined the impact of human resource accounting on the profitability of a firm: empirical evidence from access bank of Nigeria plc and found out that there is a positive relationship between the indicators of human resource cost (training cost, development cost and number of staff) and the profit of the organization (Access Bank Plc) The crux of the study was to examine the impact of human resource accounting on the profitability of Access Bank of Nigeria Plc, from 2003 to 2012. Using the ordinary least square analytical technique, secondary data from Access Bank of Nigeria Plc were obtained. It was discovered that there was a significant relationship between training cost, development cost and the profit of the bank.

## **Theoretical framework**

### **Human capital theory**

In a deeper sense, however, human capital is more than simply the physical labour of people who work for an organization. It is the entire set of intangible qualities those people bring to the organization that might help it succeed. The theory argues that a person's formal education determines his or her earning power. According to Human capital theory, the key competences, skills, knowledge and abilities of the personnel to contributes or organizations competitive advantage. Human capital theory = Inputs/ capital + training = outputs/ efficiency. This depicts that if adequate input or resources is invested on training of human resources in an organization, the output, production or performance level will increase and vice versa. This is to say that human capital as a system, the quality of input on it will determine the quality of output it will give out.

The key assumption of human capital theory is that investment in education and training results in increased output that promoted productivity and organizational performance (Swanson & Holton 2001). According to human capital theory, an adequate investment in people will result in growing economy. Adam Smith is the founding father of human capital theory in 1776. According to Adam Smith difference in wages paid were based on relative ease or difficulty of doing jobs involved.

## **Methodology**

### **Research design**

The ex post facto design is adopted in the study, as it suits the historical and econometric nature of data and analysis respectively as well as independent manner of collecting and collating utilized data, which enhances validity. (Cresswell 2003) argue that ex post facto is ideal when it is impossible and unacceptable to alter the nature of study variable. He added that it helps in establishing causal or/ and correlational relationship among variables. Therefore, it is relevant for a study of this nature where the strength and direction of link between the exogenous and endogenous variable have not been established.

### Population of the study

Population is the group which the research wants to study (Authur, 2003). The population of this study is limited to Nigeria Brewery Plc. In this study we use independent variable of human capital cost which is measured by Gross cost, salary and welfare, and training and development. Our dependent variable is organizational performance which is measured by profitability.

### Sampling size and sampling techniques

When a population is too large for a study, it's impossible to include all members of that population in the investigation. According to Wokocha (2015) population may be too long to be reached at a particular time. In this study, we limited out investigation to the period between the period 2006 to 2020 of the financial statement of Nigeria Brewery Plc. Sampling techniques is the method that allow researcher to get information concerning a population from a fraction of that population. In this study we used purposive sampling method also known as judgemental or expert method, which is a type of non-probability sample. This method was used because of the nature of the secondary data.

### Method of data collection

The data collection for the purpose of this study is mainly from secondary sources derived from the Nigerian stock exchange Annual report and the CBN statistical Bulletin. Other sources include journal papers, seminar, presentation, textbook etc.

### Validity and reliability of research instrument

The data used in this research are adjudged to be valid and reliable as they are all secondary data and are generated from Nigeria Brewery Plc. The figure cannot be alter and it has been used by other researcher.

### Method of data analysis

The data for this study are time series data generated from Nigerian Brewery Plc. For the period between 2006 to 2020. We used multiple regressive statistical tools to analysis the data. The model specification is as shown below. Model Specifications. Profit = ( Training and Development cost + safety and health + Gross cost) .  $P = f(GRC + TAD + SAH)$  . This equation was transform into econometric model to remove the error .  $P = b_1 + b_2 TAD + HAS + GRC$ . Where: P = Profit, TAD – Training and Development, HAS= Health abdSafety, GRC = Gross Cost, BO = intercept, B= slope coefficient and E = error terms.

### Data presentation, analysis and discussion

#### Data Presentation

The data used for the study is presented below:

**Table 1: Training and development, health and safety, gross cost and net profit**

Years	Training and Development (N)	Health and Safety (N)	Gross Cost (N)	Net Profit (N)
2009	1,036,602	343,867	9,121,204	41,662,334
2010	958,861	293,864	10,840,856	44,966,614
2011	1,371,452	413,855	12,074,377	56,997,812
2012	1,944,958	633,468	17,191,201	63,932,031

2013	2,109,478	645,676	19,155,265	69,171,377
2014	1,884,807	659,316	20,700,513	66,860,899
2015	2,219,500	849,388	27,500,383	62,269,368
2016	1,978,372	733,694	28,860,900	52,908,411
2017	2,233,463	894,892	30,054,342	57,126,310
2018	1,573,073	883,075	31,527,145	36,956,798
2019	1,430,626	842,628	29,867,966	35,254,672
2020	1,032,301	984,420	29,865,753	29,817,785

Source: Nigeria Stock Exchange (2020) and company annual financial statement

### Data analysis

#### Multiple regression (ordinary least square)

The study basically adopted the classical linear regression model as it is the best linear unbiased estimator to show the relationship between a given pair of variables. However, prior to the actual analysis and interpretation of the variables employed in the study, it is pertinent to consider the appropriateness of the model used, as the validity of the result will be dependent on the validity of the system (model) which produces it. To this end, the model is summarised below:

**Table 2 : Model summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.967 <sup>a</sup>	.936	.912	3975400.79802

a. Predictors: (Constant), GRC, TAD, HAS

Source: SPSS version 25 output.

The R-squared ( $R^2$ ) otherwise called coefficient of determination underscores the variability of the dependent variable that the independent variables are responsible for. The output clearly shows that it is 0.936 which represents 93.6%. The implication of this is that the employed independent variables (training and development, health and safety, as well as gross cost) account for about 94 percent of change in the dependent variable (net profit) while the other 6% is accounted for by other variables that can be associated with net profit, but excluded from the model otherwise referred to as error term. The adjusted  $R^2$  shows a more robust test of variability in the sense that it is not susceptible to the addition of more independent variables to the model. It stands at 0.912 which implies that irrespective of the number of variables considered, they cannot account for less than 91.2% variability of the dependent variable. Given that the minimum threshold for the goodness of fit is 60%, the  $R^2$  is considered adequate.

**Table 3: Coefficients<sup>a</sup> of the variables**

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error			
(Constant)	26739815.935	4826709.541	Beta	5.540	.001
TAD	28.485	2.787	1.014	10.222	.000
HAS	13.250	18.507	.226	.716	.494
GRC	-1.404	.499	-.883	2.816	.023

a. Dependent Variable: NEP

Source: SPSS version 25 output.

From the output above, it can be observed that the coefficient of the constant (C) is 26,739,815.94 which indicates that if the measures of human resource accounting are held constant or zero, the corporate profitability, as measured by net profit will remain at a minimum of N26.74 billion per year. The coefficients further show the extent to which a change in human resources investment will affect corporate profitability. The coefficient for staff training and development is 28.485 as seen in the table above, indicating a positive relationship with the corporate profitability to the extent that a unit increase in the training and development related expenditure would lead to 28.485 units increase in net profit. This is similar to the manner that health and safety expenditure relates with net profit as seen in the analytical output above which shows a coefficient of 13.250. this reflects a direct relationship and implies that a unit increase in health and safety investment will culminate in a 13.250 unit increase in corporate profitability. Furthermore, the coefficient of gross costs is -1.404 indicating first, that there is an inverse or negative relationship between gross cost and corporate profitability; in that a unit increase in the gross costs will result in a 1.404 units decrease in the net profit of the firms. Besides, the P-value of the respective variables indicate that while staff training and development, and gross costs are significantly related to net profit, the relationship between health and safety investment and corporate profitability is statistically insignificant.

**Table 4: Analysis of variance**

Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	18412020336.000	3	613734025945.200	38.835	.000 <sup>b</sup>
Residual	12643049299.100	8	158038115037.387		
Total	19676374835.000	11			

a. Dependent Variable: NEP

b. Predictors: (Constant), GRC, TAD, HAS

Source: SPSS version 25 output.

The F-statistics and its probability are used to estimate the overall significance or otherwise of the independent variable(s) on the dependent variable. For this work, the F-statistics value of 38.835 shows a probability value of 0.000 which is lower than 0.05 (5%) significance level set *ab initio*.

This shows that the employed model has a good fit and similarly implies that the independent variables – staff training and development, health and safety investments and gross costs have significant relationships and fit with corporate profitability.

### **Test of hypotheses**

The t-statistics and attendant probabilities (as captured in Table 4.4) are used to test the respective hypotheses stated in the null and alternate form as follows:

#### **Hypothesis one**

**H<sub>01</sub>:** Training and development cost has no significant effect on net profit.

**H<sub>A1</sub>:** Training and development cost has significant effect on net profit.

A consideration of the linear regression output in Table 4.3 shows that, the t-statistics for training and development is 10.222 with a probability of 0.000 which is lesser than the pre-set significant level of 0.05 (5%).

Therefore, the study rejects the null hypothesis and accepts the alternate. This shows that there is a significant effect of staff training and development cost on net profit.

#### **Hypothesis two**

**H<sub>02</sub>:** Health and safety cost has no significant effect on net profit.

**H<sub>A2</sub>:** Health and safety cost has significant effect on net profit.

A consideration of the linear regression output in Table 4.3 shows that, the t-statistics for health and safety cost is 0.716 with a probability of 0.494 which is greater than the pre-set significant level of 0.05 (5%). Therefore, the study does not reject the null hypothesis. This shows that there is no significant effect of health and safety cost on net profit.

#### **Hypothesis three**

**H<sub>03</sub>:** Gross cost has no significant effect on net profit.

**H<sub>A3</sub>:** Gross cost has significant effect on net profit.

A consideration of the linear regression output in Table 4.3 shows that, the t-statistics for gross cost is -2.816 with a probability of 0.023 which is lesser than the pre-set significant level of 0.05 (5%) therefore the null hypothesis is rejected. Thus, we reject the null hypothesis which states that gross cost has no significant effect on net profit. By implication, there is significant effect of gross cost on net profit.

### **Discussion of findings**

The study has applied empirical analytical tools to attain its objective which is to establish the effect of human resource accounting on corporate profitability. To this end, the result shows a significant effect of human resource accounting on corporate profitability. Specifically, the results show that training and development, and health and safety costs have positive effect on net profit, while gross cost has adverse effect on net profit. First, the observation of direct effect of training and development cost on net profit is antithetical at face value as costs should positively impact profit. However, this particular finding shows that continuous investment in the training and capacity enhancement of staff in the long-run enhances the profitability of the firm as the knowledge acquired will be reflected in skills and experience which will ultimately improve efficiency by reducing materials wastages. In the same vein, health and safety cost or expenditure has positive effect on net profit. This is seen in the results above as a percent increase in health and safety cost translates to over 13 percent increase in net profit. The import of this positive impact is that spending on the physical and psychological wellbeing of the firm's staff will ultimately enhance their productivity which will lead to increased profitability for the firm.

On the other hand, the adverse effect of gross cost on corporate profitability is in tandem with conventional or anecdotal reasoning. This is so as increased cost will ultimately lead to reduced profit, where other factors are held constant. Therefore, the findings indicated that the costs of the firm negatively impact on the profit as increased cost leads to narrowing levels of profit for the firm.

### Conclusion

The empirical analyses in the study shows broadly, that there is a significant effect of human resource accounting on corporate performance. It can therefore be concluded that human resource accounting significantly affects the profitability of firms. Beyond this, it can be deduced from the positive effect of training and development as well as health and safety on net profit that spendings on human resource are more of investments than expenses as this ultimately culminates in increase in performance and by extension, corporate value. It can be inferred from the results that training and development contributes twice as much as health and safety in enhancing profitability. It can also be deduced from the negative effect of gross cost on net profit that some elements contained in net costs do not enhance the performance of the firm, thus certain elements are avenues for inefficiency which ultimately lead to depletion of corporate profitability.

### Recommendations

Given the findings and conclusions, the following recommendations are made:

1. Management of corporate establishments should prioritise staff training and development to enhance productivity and profitability.
2. More investment in staff health and safety should be made so as to drastically reduce idle time, and compensation which could deplete profit.
3. Management should evaluate gross cost so as to identify and expunge elements that lead to inefficiency in order to enhance profitability.

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