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EFFECT OF HUMAN CAPITAL ON PROFITABILITY OF BREWERY FIRMS IN NIGERIA

Ugwuene Rosemary[1]; Agbo Blessing Onyinye [2] & Uwakwe, Queen C.[3]

[1, 2] Department of Accountancy, Faculty of Management Sciences, Enugu State University of Science and Technology, Enugu.
[3]Department of Economics Godfrey Okoye University, Enugu.

Abstract: The purpose of the study is to investigate the effect of human capital on the profitability of brewery firms in Nigeria. The data were gathered from a sample of Nigerian brewery plc's annual reports and accounts for (12) twelve years (2004-2015). The research work made use of multiple regression method. Salaries and Wages (SWGS), Sundry Employee Benefit (SEB) and Staff Training (STRN) are used as human capitals, while Profit After Tax (PAT) was used as a measure of profitability using multiple regression technique, E-view 9.0 software package. Salaries and wagages, sundry employee benefit, and staff training has significant effect on profit after tax of Nigerian Breweries Plc. The extent of effect of the indenpendent variables on the dependent variable is positive and significant. The result shows positive influence of Salaries and wagages, sundry employee benefit, and staff training on profit after tax. This result is consistent with existing literature which points out positive effect of human capital on profitability of Nigerian manufacturing firms. Based on the findings of this study, the researcher recommends that; Nigerian breweries firms should increase the salaries and wages of their employees in other to boost their profitability. In doing that, basic motivating allowances should be introduced. Nigerian Brewery firms should critically analyse their human capital to identify areas where additional investment is needed. There is need for Nigerian breweries to ascertain the level of staff training that can be seen to be optimal so that redundancy and under utilisation would not be encouraged.

Keywords: Human Capital, Profitability, Brewery Firms, Nigeria.

Introduction

1.1 Background of the Study

It is being increasingly expressed by professional accountants, institutional investors, and e-accountants, especially of the new knowledge economies, that new financial and management accounting concepts and practices need to be established, to acknowledge the Human Capital of a business enterprise. Whether it is in manufacturing, service or technology, the value vested in human capital cannot be ignored. This concept of measurement and management of human capital costs is also gaining importance in the brewery industry, amongst which are: insurance companies, banks and high technology-based companies. People from different industries, companies and backgrounds agree that the time to focus on human capital and related issues has come (Chen and Lin 2004).

The main goal for any business is simple: Invest capital so that it maximizes shareholder value. However, in modern times, this is a necessary but not sufficient condition because execution of successful strategies depends on access to intellectual and operational know-how, customer and supplier relationships, a committed workforce, and other such intangibles. At the heart of making these intangibles come alive is the firm's investment in human capital. As Carnegie (1919:3) puts it, "The only irreplaceable capital an organization possesses is the knowledge and ability of its people. The productivity of that capital depends on how effectively people share their competence with those who can use it". It is logical therefore that competitive age in the 21st century has shifted from process and technology to quality of human capital. However, relatively little is known about the valuation, measurement and reporting of human capital. This could be explained by the complexity of the issue. For instance, ownership of human capital cannot be enforced because employees are free to leave at will. It is important to note that even as employees can leave at will, their exit will still leave with the organisation the impact of their existence. Also, investment in human capital involves a great degree of uncertainty about the financial and operation success of those activities. Hence, under generally accepted accounting principles, all human-related expenditures are treated as expenses, which are deductions of revenues, thus misleading decision-makers into inappropriate judgments.

For years, companies have rigorously measured key areas of their operations from the success rates of new product introductions and productivity of manufacturing operations, to direct mail conversion rates and customer retention. The reason is obvious: Bringing desirable new products to market, squeezing the most from one's physical assets, and gaining and keeping customers are all critical factors in a company's success. However, without concrete human capital performance measures, effective management of these areas would be impossible.

Thus, while measurement of supply chain, research and development, and sales activities has continued the same for human capital investments has remained comatose. This was not particularly problematic in the days when competitive advantage was defined by one's physical assets or proprietary products, and people were merely replaceable parts in the organizational machine. In today's global economy, particularly in the service industry, where knowledge and information are very crucial to their very existence and survival, human capital is gradually assuming the characteristic of "product". In the process, a company's workforce has evolved into arguably the biggest competitive differentiator for organizations in virtually all industries especially the service oriented industry which banks fall.

The simple fact is that the most successful organizations today and in the foreseeable future will be those that are able to measure the business impact of their investment in people whether that investment is employee recruiting, performance management, skills development or benefits administration. Fola, (2013) asserts that firms with the most highly educated workforce enjoy above average productivity and profitability. No wonder that the issue of human capital investment has continue to be important and how to maintain or enhance its value a topical issue.

In Nigeria, banks are reputed as one of the fastest growing sector in the financial service industry in the country. They have also earned themselves the reputation of the sector with the highest yearly recruitment in the industry if not in the economy at large and also have a good compensation package for its employees. The sector has graduated from semi-skilled labour driven, to a more professional and skilled workforce, where people who are highly educated and skilled are considered most appropriate for the sector.

While brewery firms have traditionally emphasized shrewd use of financial assets, the increasingly competitive global marketplace is causing financial institutions to take a fresh look at the way they manage human capital. The goal is to attract, develop, and retain valued people while ensuring efficient use of human capital.

1.2 Statement of the Problem

The new knowledge economies have highlighted the importance of human capital and the imperative need to measure and manage their associated costs and benefits. Human capital represents the knowledge, skills, and competencies of employees that allow them to be productive. It contrasts with ordinary physical capital such as buildings and information technology (IT) systems. Brewery firms and manufacturing firms, which are rich in human capital and face great 'human capital-walk outs' should be concerned with measurement of the cost of this unique asset. It has become a common phrase included in banks annual reports and accounts that; "Our employee are our greatest asset", yet there have not been adequate attention given to the value and contribution of this "great asset" on the overall performance of the banks.

When companies invest in physical capital; they try to select alternatives offering the highest return on their investment. They would also like to invest in human capital offering them the highest return. Traditional accounting methods, which are based on tangible assets and historical, transaction based information are inadequate for valuing intellectual capital of which human capital is one. It has become therefore imperative for firms to development methods of valuing their human capital and its impact on it performance, if it would continue to be relevant in the ever competitive knowledge-based economy.

1.3 Objectives of the Study

The aim of this research work is to examine the effect of human capital on the profitability of brewery firms in Nigeria. from 2004–2015. The specific objectives of this research work include the following:

1. To examine the effect of salaries and wages on the profit after tax of brewery firms in Nigeria.
2. To evaluate the effect of sundry employee benefits on the profit after tax of Nigerian brewery firms.
3. To ascertain the effect of staff training on the profit after tax of Nigerian brewery firms.

1.4 Research Questions

1. What are the effects of salaries and wages on the profit after tax of brewery firms in Nigeria?
2. To what extent does sundry employee benefits influence on the profit after tax of Nigerian brewery firms?
3. What are the effects of staff training on the profit after tax of Nigerian brewery firms?

1.5 Statement of Hypotheses

Ho: Salaries and wages do not have any effect on the profit after tax of brewery firms in Nigeria.
H1: Salaries and wages have significant effect on the profit after tax of brewery firms in Nigeria.
Ho: Sundry employee benefits do not have any significant effect on the profit after tax of Nigerian brewery firms.
H1: Sundry employee benefits have significant effect on the profit after tax of Nigerian brewery firms.
Ho: Staff training does not have any effect on the profit after tax of Nigerian brewery firms.
H1: Staff training has significant effect on the profit after tax of Nigerian brewery firms.

1.6 Scope of the Study

The scope for this study is viewed in two folds of variables and time period. In terms of the variables, a number of variables have been used in past studies to measure human capitalwhich include: Salaries and wages, sundry employee and staff training.

In terms of time, this study will be limited to 12 years. Thus, this study will be limited in time scope to a period from 2004 to 2015.

Review of Related Literature

2.1 Conceptual Framework

Human Capital Investment

Wikipedia defines human capital as a way of defining and categorizing peoples' skills and abilities as used in employment and as they otherwise contribute to the economy. Schmidt (2004) defines human capital as a form of intangible assets that creates future economic value, which include the competencies of front-line employees and the organizational capabilities.

Human capital is a broad concept encompassing many components but essentially describing the quality of the labour force. While some find the term human capital a limiting one, others such as Brummet, (2008) suggest that identifying employees as human capital allows people to be more highly valued. Davenport proposes that this permits the model where employees are "investors in a business, paying in human capital and expecting a return on their investment".

Simply stated, human capital means people. For the purposes of this study 'human capital' refers to the sustainability of people management systems which are likely to have an impact on the performance of a firm 'Sustainable' human resource management systems are those which are internally consistent, consistent with the firm's corporate strategy and consistent with the broader context in which the firm is operating.

Economist View of Human Capital

Undoubtedly, in modern economic theory Human Capital Theory isone of the important theoretical foundations to account for the human capital dimension. However, the extensive definitions of human capital create accounting obstacles. Therefore, it is necessary to categorise the various definitional notions to identify a practical definition for human capital.

Presently, there are three basic views for the notion of human capital. The first is the investing view, which conceives that human capital is the result of investment, and so the human capital value is the expenditure that is invested to enhance personal physical strength and intelligence, and acquire knowledge and skills (Cascio, (2001). The second is the view of part outputs, which conceives that human capital is proprietary knowledge, and skill, experience and the relevant workplace competencies of managers and technical innovators (Chen, and Lin 2004). The third is the holistic output view, which conceives human capital as the total value of personal physical strength, intelligence, and knowledge and skills for utilization. The total output is the sum of labour abilities of a particular population (Mavridis, 2012). There exist a strong belief and support for the third view, namely, that human capital is the labour ability of any person. Thus, human capital is not limited only to managers or technical personnel. More specifically, human capital is the 'output' formed by the investment, the form is intangible, and its value is not what has been invested, but the worth of 'output'.

As noted by Lev, and Schwartz (2014), intellectual capital can be divided into two main categories, defined as human capital and invisible assets, or 'nonthinking' capital. These can be represented using apparently valid quantitative financial methods. For instance, human capital can be divided into three main areas: competence (e.g. average duration of employment, hours of training per employee, IT literacy), attitude (e.g. a leadership index, a motivation index) and intellectual agility (e.g. savings from employee suggestions, company diversification index).

Concept of Salaries and wages

According to Fola, (2013) Salary is a form of payment from an employer to an employee, which may be specified in an employment contract. It is contrasted with piece wages, where each job, hour or other unit is paid separately, rather than on a periodic basis. From the point of view of running a business, salary can also be viewed as the cost of acquiring and retaining human resources for running operations, and is then termed personnel expense or salary expense. In accounting, salaries are recorded in payroll accounts. Salaries are fixed cost in nature.

One of the most important aspects of a job for most workers is the wage it pays. Wages allow workers to make a living from their labor. They also provide incentives to be productive and loyal` to an employer. In a broader sense, the wages workers earn fuel the economy.

For workers, wages are a primary source of income, along with smaller sources like government aid and investment income. Wages from work pay for essentials, such as rent, a mortgage, food and utility bills. Workers who earn high wages can afford more expensive lifestyles than those who earn a lower wage. Minimum wage laws ensure that all workers earn enough to pay for the basics, and that employers can't take advantage of workers.

Concept of Employee Benefit

Gary, (2013) opined that indirect and non-cash compensation paid to an employee. Some benefits are mandated by law (such as social security, unemployment compensation, and worker's compensation), others vary from firm to firm or industry to industry (such as health insurance, life insurance, medical plan, paid vacation, pension, gratuity).

Sundry income is income generated from sources other than a company's normal income-generating business operations. This includes any income not generated by the sale of the company's products and services. Sundry income is likely to be less predictable in nature than revenue from a business' primary operations as the associated activities are often irregular in nature and cannot be seen as guaranteed sources of income over the long term.

Sundry income is a nonmaterial source of income and is generally trivial in relation to a company's income from operations. Even though sundry income may not make up a large part of a business' income, this does not mean the amounts are negligible. There is no limit to the amount of income that may qualify as sundry income as the defining characteristic is based on the irregularity of the fund source and not the amount of funds generated. On the income statement or balance sheet, sundry income may also be listed as miscellaneous income or other operating income.

Concept of Staff Training

Guest, et. al (2012) is of the view that training and development can be initiated for a variety of reasons for an employee or group of employees. Training your staff is an investment in your business. Your staff are your most valuable asset, and making sure they are trained with the skills and knowledge they need is essential for meeting your business goals. Training helps you get the most out of your staff and increases their job satisfaction, which can help you retain staff and avoid the expense of recruitment.

As a brief review of terms, training involves an expert working with learners to transfer to them certain areas of knowledge or skills to improve in their current jobs. Development is a broad, ongoing multi-faceted set of activities (training activities among them) to bring someone or an organization up to another threshold of performance, often to perform some job or new role in the future.

Training refers to the teaching or learning activity carried on for the primary purpose of helping members of an organization acquired and apply the knowledge, ability, skill and attitude needed by the organization.

According to Farland (2006) training is the term used to describe the process through which organization build the skill and abilities of non-managerial employee. Development on the other hand includes the process by which manager and executives acquire not only the skill but competence in their present job but also capacity for future managerial task increasing scope.

Development is not as specific that, it is more general in application. In this context, it is used in the relation to the process of helping management improve the managerial administrative skills and decision making process, qualities, competencies and achieving motivational and consequently productivity of employer, by wing training to motivate employees, it will definitely result in increase in productivity. Training tends to be connected with non managerial employee while development refers to managerial staff.

Accountants View of Human Capital

The second area of human capital is often seen as invisible assets and processes, 'non-thinking' capital, such as relationships (e.g. customer retention, length of supplier relationship); internal efficiency (e.g. revenues from patents, processes completed without error); renewal and development (e.g. percentage of business from new products, new patents filed, training costs per hour per employee). This second area is more aligned to the accountants where they view human capital from the valuation perspective. These types of measures can be combined into a weighted intellectual capital index, which, on the surface, has meaning and rigour.

Guest, Michie, Sheehan, Conway, & Metochi, (2012), posits that two key principles are central to the human capital idea. First, people are assets whose value can be enhanced through investment. As with any investment, the goal is to maximize value while managing risk. As the value of people increases, so does the performance capacity of the organization, and therefore its value to clients and other stakeholders. Second, an organization's human capital policies must be aligned to support the organization's "shared vision"—that is, the mission, vision, the future, core values, goals and objectives, and strategies by which the organization has defined its direction and its expectations for itself and people. All human capital policies and practices should be designed, implemented, and assessed by the standard of how well they help the organization pursue its shared vision.

Gary, (2013) also believes that enhancing the value of employees is a win-win goal for employers and employees alike. The more an organization recognizes the intrinsic value of each employee; the more it recognizes that this value can be enhance with nurturing and investment; the more it recognizes that employees in their talents and motivations, and that a variety of incentive strategies and working arrangements can be created to enhance each employee's contributions to organizational performance, the more likely the organization will be to appreciate the variety of employee needs and circumstances and to act in ways that will make sense in both business and human terms.

Evolution of the term 'human capital'

Over the years, various terms have been used to describe one of the major factors of production in basic economics. It has, at various times, been referred to as labour, other refer to it as personnel. With the growing realisation of the need to emphasize the importance of man in a work setting, the word human resource evolved. In recent times, to further re- emphasize the strategic importance of the role of men in the organisation, the terminology now used is human capital. The term human capital dates back to Jacob Mincer's (2008) pioneering article 'Investment in Human

Capital and Personal Income Distribution. It implies an investment that can yield a stream of returns. Friedman, and Lev, (2014) the first economist to emphasiselabour quality differences and who identified what was later termed human capital which originated from his argument for an inclusion of the "value of workers" in accounting for wealth for actuarial purposes believed that the workers should be valued and their value should be include in actuarial computations. Fola, (2013) also wrote intensively about the incidence of workers' and employees' knowledge and skills on the production process and the quality of output. He emphasised that wages should be determined (among other things) by the efforts in time, energy and money spent by workers to gain the skills requited for their working tasks. In analysing the determination of wages, he clearly state that education and learning should be considered as "investments" in human beings.

The work of Flamholtz, (2014) became the founding base of modern human capital theory. He stated that, "A stock of wealth existing at an instant of time is called capital. A flow of services through a period of time is called income". His definition of income and capital was "all-inclusive", and thus resolved the controversies among capital theorists on the nature of capital goods as to materiality, monetary aspects, durability or repeatability of use. He emphasised that all types of stocks would be capital when yielding services, and even explicitly includes human beings.

Human Capital as Asset

Any asset is a claim to a future benefit, such as rent from owning a commercial property. An intangible asset is, if it is successfully managed — a claim to a future benefit that does not have a physical or financial embodiment. Barunch (2013) defines human capital as that investment made on the human resources of a company. Generally, human capital is represented by human resources (employee competencies), which are broadly related to education and training of professional staff, who are the principal generators of revenue. Non-revenue generators are called support staff. Employees create value by applying their skills, exerting their knowledge and initiating new ideas.

IAS No 38 (IASC 1998) requires that an intangible asset should be recognised if, and only if: (a) it is probable that the future economic benefits that are attributable to the asset will flow to the enterprise; and (b).the cost of the asset can be measured reliably.

Flamholtz (2014) posits that to be recognised as an asset, the cost of investment in human capital has to met the following conditions:(1) an asset must posses a potential for future benefits; (2) benefits must be measured in monetary term; (3) these future benefits are owned or controlled by the reporting entity. The definition of future benefits includes a direct or indirect contribution to future net cash flows, subsequent sales, earnings, or share of industry sales and revenues or cost saving.

Of the few studies that focus on accounting to human capital notables include Lev and Schwartz (2014). While each of these studies proposes a different valuation procedure for human capital, they all agree that the value of human capital should be reflected in the financial statements. These studies also argue that information on human capital could be useful to investors in assessing efficiency and predicting future profitability and productivity. This study however considers the basic problem by investigating whether expenditures on human capital can be viewed as assets. This study is on the premise of Flamholtz (2009:33), who states: "Thus the real issue is: Should investments in people be treated as assets?"

It has been argued over the years that investments in human capital cannot be capitalised because companies cannot force employees to provide services, consistent with the legal notion of free labour mobility. Yet labour mobility may be restricted due to various factors, such as geographical preferences, search and relocation costs, information asymmetry, age and gender. Hall (2012) reported that a typical US worker in the 1980s was in a job about eight years and a large fraction of the work force take on jobs that would last 20 years or more. This implies that while employees have the option to leave at any point in time, they do not exercise this option frequently. When compared to other fixed assets we can therefore say that human capital is expected to stay longer in an organisation than some fixed assets.

Investment in Human Capital

Investment in human is seen as that part of a firm's spending that is dedicated to the employees. It involves the spending that relates to recruiting, training, compensation, retaining and pension incurred on the employees of a particular firm.

Blundell, Dearden, Meghir and Sianesi (2009) describe human capital investment as having three components. This includes early ability (whether acquired or innate); qualifications and knowledge acquired through formal education; and skills, competencies and expertise acquired through training on the job. They went on to state that human capital investment involve an initial cost (tuition and training course fees) which the individual or firm hopes to gain a return on in the future (through increase earnings or higher firm productivity).

Component Investment in Human Capital

Richard, Lorreaine, Costas & Barbara (2009) describe investment in human from two angles, one from the individual and the other from the firm's.

Individual Investment in Human Capital

The accumulation of human capital is seen as an investment decision, where the individual gives up some proportion of income during the period of education and training in return for increased future earnings.

Individuals will only undergo additional schooling or training (i.e. invest in their human capital) if the costs are compensated by sufficiently higher future earnings. In a competitive labour market where wages reflect the marginal product of workers, to be able to command higher earnings, the better-educated or more-trained workers must be sufficiently more productive in employment than their less-skilled counterparts

Firm Investment in Human Capital

Employers fully or partially fund the training of workers in the hope of gaining a return on this investment in terms of being a more productive, more competitive and consequently more profitable firm in the future. Like other decisions about investment in education, the decision to provide on- the-job training involves a firm considering both the costs of providing training and the expected added revenues generated by training for staff.

These costs and benefits for the firm include both direct (i.e. the costs of instruction) and indirect (i.e. reduced worker output during training). Workers undertaking on-the-job training will also encounter potential costs and benefits from the training, such as the possibility of reduced wages during training periods and higher wages from enhanced productivity.

Types of Investment in Human Capital

Gary (2012) considers investment in human capital in different form depending on who is making such investment and where the investment is made. It can take any one or more of the following form.

1. On The Job

Many workers increase their productivity by learning new skills and perfecting old ones while on the job. On-the-job training, therefore is a process that raises the future productivity and differs from school training in that an investment is made on the job rather than in an institution that specialises in teaching. The cost of such investment will be value placed on the time and effort of the trainee, the teaching provided by others, and the equipment and materials used. These are believed to be costs in the sense that they could have been used in producing current output if they were not used in raising future output.

There are basically two types of on the job training; it could either by general or specific on the job training. General training is useful in many firms in addition to the firm providing it, as a doctor trained at one hospital finds his skills useful at other hospitals. Training that increases productivity more in firms providing it will be called specific training. Specific training can be defined as training that has no effect on the productivity of trainees that would be useful in other firms.

Much on the job training cannot be seen as completely specific or completely general but increases productivity more in firms providing it and it is describe as specific. Where it increases productivity by at least as much in other firms it is believed to be general. Firms usually spend a lot of money in familiarising new employees with their organisation, and the knowledge so acquired is a form of specific training because productivity is raised more in the firms acquiring the knowledge than in other firms.

2. Schooling

Schools and firms are often substitute sources of particular skills. The shift that has occurred over time in both law and engineering is a measure of this substitution. In acquiring legal skills for instance there is attachment to a law firms and studying in the law school. Some types of knowledge can be mastered better if simultaneously related to a practical problem; others require prolonged specialisation. That is, there are complimentarity between learning and work and between learning and time. The development of certain skills requires both specialisation and experience and can be had partly from the firms and partly from schools. It worthy of note that training in a new industrial skill is usually first given on the job, since firms tend to be the first to be aware of its value, but as demand develops, some of the training shifts to schools.

3. Other Knowledge Source

On the job training and schooling is not ultimate contributor towards human capital investment of an individual. For instance, information about the prices charged by different sellers would enable a person to buy from the cheapest, hereby raising his command over resources, or information about the wages offered by different firms would enable him to work for the firm paying the highest. Information is critical for employees to take hold of opportunities. For instance, a better job might be found by spending money on employment agencies, adverts, talking to friends and visiting firms. When the new job requires geographical movement, additional time and resources would be spent in moving. These expenditures constitute as investment in information about job opportunities that would yield a return in the form of higher earnings than would otherwise have been received.

4. Productive Wage Increases

One way to invest in human capital is to improve emotional and physical health. In advanced countries of the world today earnings are much more closely geared to knowledge than strength, but in the earlier days and in some countries still developing, strength had a significant influence on earnings. Moreover, emotional health increasingly is considered an important determinant of earnings in all parts of the world.

Firms can invest in the health of employees through medical examination, luncheons, or steering them away from activities with high accident and death rates. It is important to note that the productivity of employees depends not only on their ability and the amount invested in them both on and off the job but also on their motivation, or the intensity of their work. Economists have long recognised that motivation in turn partly depends on earnings because of the effect of an increase in earnings on morale and aspirations.

2.2 Theoretical Framework

Many studies have advanced numerous explanations which serve as theoretical backing on the human capital. For the purpose of this research, the paper tends discuss the most commonly used theories on human capital.

Value Added Intellectual Coefficient Theory

Value Added Intellectual Coefficient (VAIC) theory developed by Pulic (2007) is found most appropriate for the study of human capital and performance. It meets the basic requirements of contemporary economy indicating the real value and performance of a company; this is because value added has been reputed as the preferred measure of the wealth created by activities of a company. Pulic (2007) sees investment in human capital as the sum total of all expenditures incurred on the employees during the period, that is, the salaries and allowances. He also used Human Capital Efficiency to assess the efficiency achieved the companyfrom the investment in human capital.

This Theory meets the demand for giving employees the status of key resource by treating them as investment and not as cost; this because they invest their knowledge and skills which is valued by the market through the company's activities and reflected in the created value added. The model has received wide usage in the area of intellectual capital valuation especially with human capital due to the inadequacies of the other valuation methods and measurement models. VAIC™ provides a standardised and consistent basis of measure that can be used for easily comparison both within sector, industry or internationally. It is also important to state that all the data used is based on audited information from financial reports, therefore results can be said to be objective and verifiable. Also, like other traditional measures of corporate performance, it is easy and straightforward for both internal and external users of the financial statement.

Human Capital Theory

This theory emphasizes the value added that people contribute to an organization. It regards people as assets and stresses that investments by organizations in people will generate worthwhile returns. The theory suggests that nvestment in people results in economic benefits for individuals and society as a whole (Sweetland, 1996). The nvestment in individual can be made in terms of education, health, nutrition, and any other development that results in long-term benefits. It is important to clarify that the investor in this particular case is an individual who decides whether to invest his or her time, money and other resources into some activity that will benefit his or her human capital.

The theory is associated with the resource based view of the firm. Barney (1991), developed a theory that proposes that sustainable competitive advantage is attained when the firm has a human capital that cannot be imitated or substituted by its rivals, for the employer investment in training and developing people is a means of attracting and retaining human capital as well as getting better returns from those investments.

2.3 Empirical Review

According to Andrew Carnegie (2010) human capital knowledge and experience is the main element, which is the base of other elements and which will impacts a company's value through affecting other elements. Employees' knowledge and capabilities are the source of innovation. In order to accumulate innovation capital, besides relying on the firm's encouragement and active input, raising employees' capabilities is also an important impact factor. Human capital is viewed as an element of intellectual capital like other elements which include innovation capital, process capital and customer capital, these elements on their own cannot solely impact on the performance of a firm. It is believed that casual relationships exist between these elements. However, human capital is the most fundamental elements of intellectual capital.

Consequently, it would be appropriate to infer that human capital is closely linked to innovation capital. Employees must be relied on to carry out the internal processes of a company, while employees also perform all customer services. It is believed that employees provide the quality of service while implementing internal processes, the capability of employees would affect process efficiency, quality, and customer satisfaction. This cause-effect relationship indicates that accumulating human capital would be helpful to improve the other forms of intellectual capital and in effect improve performance.

Andriessen, and Tissen, (2012) propose the American Customer Satisfaction Index and contend that customer expectations, perceived quality, and perceived value could influence customer satisfaction is to increase perceived quality. Barunch (2013) believed that the higher the perceived quality, the more the customers are satisfied. The internal process of a company provides service quality to its customers. Therefore, process capital is somewhat of a leading intellectual capital element, which affects customer capital element, while the customer element in turn influences financial performance.

According to Becker (2012) the link between human capital and performance is based on two theoretical strands. The first is the resource-based view of the firm. The second is the expectancy theory of motivation as stated by Vroom (2014) composed of three elements: the valence or value attached to rewards; the instrumentality, or the belief that the employee will receive the reward upon reaching a certain level of performance; and the expectancy, the belief that the employee can actually achieve the performance level required.

Initial writing on human capital and performance of firms dates as back as 1960 with the works of economists such as Chen, H. M. and Lin K. J. (2004). They studied the relationship between education and economic growth, productivity and earning growth which all have empirical support. They all concluded that human capital is the basis in explaining individual earning differences. The further state that employees who invest in education and training will raise their skill level and be more productive than those less skilled, and so can justify higher earnings as a result of their investment in their human capital. In similar line, human resource accountants in a bid to establish valid and reliable techniques for measurement of cost and value of employees to organisations explain how the contributions of employees added to the asset value of the firm. The main issue as seen by human resource accountants is that human assets, unlike capital assets, have a largely uncertain future service life. Therefore, they have been concerned with the nature of the uncertainty and providing estimates of this, with a number of measures used, including the discounted future compensation model proposed by Cascio, (2001). Brummet, et al (2008), believes that the human resource accounting issue of measuring an individual's value to firm is founded on the notion that it is not the individual per se who is valuable, but the individual in relation to the roles he/she plays that is crucial. However, because of the twin problem of stringent public accounting standards not allowing reporting of human asset value in financial statements and the absence of generally accepted accounting procedures, the concept remained theoretical.

The 1980s rise in human resource management brought managerial scholars to debate on the link between the management of people and performance. A number of attempts towards giving the theoretical view an empirical base were made. Notable among them are the works of *Davenport, (2009)* where he examined the link between Human Resource planning and business performance and found no correlation.

However, the work of David (2009) used the PIMS database and found positive relationships between specific Human Resource practices and business results. A later study by Delaney, and Huselid, (2006) found that the manner of alignment between Human Resource and business strategy had an impact on organisational performance. Within the accounting field, utility analysis became a dominant theme. With this, attempts were made to solve the measurement problems that have dogged early human resource accounting formulations by examining alternative means of economic valuation.

Delery, (2012) believes that Utility analysts measure the economic contribution of personnel activities according to how effective they are in identifying and modifying individual behaviours, hence the future service contributions of employees. Thereby analysing the dollar value of certain human resource programs, particularly selection and training, and comparing them with the expected dollar value return from other investments.

Dunphy (2011) also assessed the critical contribution of human capital. He used employee surveys and interviews of 1300 of the largest US industrials and non-industrials to research whether a significant relationship exists between the way in which organisations manage their employees and profitability. His findings included a statistically positive relationship between the use of employee-centred management practices and superior financial performance.

The research approach of focusing on individual human resource and link to performance continued into the early 1990s, some relying on single measures of human resource practice. Studies carried out showed that selectivity in staffing is positively related to organisational performance.

Eli andGilad (2013) identified performance evaluation and its linkage to compensation schemes and have also been identified as contributing to increases in firm profitability. There were different views as relate to human resources practice but the dominant view of human resource efficacy is that individual human resource practices have limited ability to generate competitive advantage.

Methodology

3.1 Research Design

The research is on the effect of human capital on the profitability of brewery firms in Nigeria. The research adopted the ex post facto research design. This is appropriate because ex post facto determines the cause-effect relationship among variables or the effect of one variable on another.

The research will make use of secondary data from annual reports and accounts of brewery firms in Nigeria for the period 2004 to 2015.The research makes use of multiple regression method.

3.2 Area of Study
The geographical area covered by the study in the whole country Nigeria. The brewery firms that are quoted the Nigerian stock exchange as at the time of the research 2004 to 2015.

3.3 Sources of Data
The study made use of secondary data from annual financial statements covering 2004-2015 of Brewery firms Nigeria, Journals of accounting and other related disciplines, textbooks and Internet websites.

3.4 Population
In this study the population is made up of six (6) brewery firms in Nigeria as at 2017. They are Nigeri Breweries, Guiness Nigeria Plc, Champion Breweries, Consolidated Breweries and International Breweri while Premier brewery was not considered because of non functioning for a long period and interpret t producer of Hero brand has just returned to market but not quoted on the stock exchange.

3.5 Sample Size
The sample of one (1) brewery firm, Nigerian Breweries Plc, it was selected based on accessibility of its annu reports and accounts in the Nigerian Stock Exchange. The period under review was also a factor in choosing t brewery firm for the sample because it has complete data. Nigerian breweries control 65% of the market shar in the sector (Nwosu 2015).

3.6 Model Specification
In order to determine the effect of human capital on the profitability of brewery firms in Nigeria a multip regression model will be formed and it is specified as follows:

$$PAT_t = B_o + B_1SWGS_t + B_2SEB_t + B_3STRN_t + e_t$$

Where

PAT = Profit After Tax

SWGS = Salaries and Wages

SEB = Sundry Employee Benefit

STRN = Staff Training

B_o = Constant or intercept

$B_1 - B_3$ = Coefficient for independent variables

t = Current Period

e = The error term

3.7 Multiple Regression Analysis
The multiple regression analysis was used to the effect of human capital on the profitability of brewery firms Nigeria. The effect exhibited by the dependent variable included in the study upon Profit After Tax (PAT) w be measured through regression coefficient.

The study will also involve test of significance of parameter estimates by using t- statistics at 5% level. This w enable us compare the probability of computed t-statistics at various situation of empirical analysis with t critical value at 5% to establish significance. When the computed t statistics probability associated with it greater than the critical value at 5% the parameter in question is significant but otherwise not significant.

3.8 Method of Data Analysis
The statistical tools for analysis in this study will be

1. The descriptive statistics analysis.
2. Multiple regression analysis.

Descriptive Statistics explains the characteristics of research variables. It reveals the mean, median, standa deviation and other frequency distribution indices including maximum and minimum values of the time ser data. We have multiple regression analysis when there are more than one independent variables affecting the dependent variable. Regression analysis, in essence provides a procedure for determining the regression line which is defined as the best straight line or linear approximation of the effect of independent variable on dependent variable.

The research variables will be structured into independent variables and dependent variable for the purpose of the analysis. The independent variables of the study are Salaries and Wages (SWGS), Sundry Employee Benefit (SEB) and Staff Training (STRN). While the dependent variable is Profit After Tax.

Data Presentation and Analysis

4.1 Data Presentation

Table 4.1

Firm	Year	PAT	SWGS	SEB	STRN
NBL	2004	8676641	3290837	230063	794084
	2005	9763907	3989375	310378	839221
	2006	10900524	5447423	518875	1233208
	2007	18942856	6446785	1878595	521266
	2008	25700593	6208981	3502362	755760
	2009	27910091	9121204	723108	1036602
	2010	30332118	10840856	737375	958861
	2011	38434033	12074377	1047524	1371452
	2012	38042714	17191201	1535189	1944958
	2013	43080349	19155265	53225	2109478
	2014	42520253	20700513	132205	1884807
	2015	38044518	27500383	105810	2219500

Source: Annual Reports and Accounts of Nigerian Brewery Plc.

4.2 Data Analysis

Table 4.2

Dependent Variable: PAT
Method: Least Squares
Date: 01/10/18 Time: 07:30
Sample: 2004 2015
Included observations: 12

Variable	Coefficient	Std. Error	t-Statistic	Prob.
SWGS	1.369317	0.704205	1.944485	0.0877
SEB	3.496591	2.422828	1.443186	0.1870
STRN	3.030848	9.651727	0.314021	0.7615
C	4398737.	7691046.	0.571930	0.5831

R-squared	0.780847	Mean dependent var	27695716
Adjusted R-squared	0.698664	S.D. dependent var	12929411
S.E. of regression	7.097481.	Akaike info criterion	34.64958
Sum squared resid	4.03E+14	Schwarz criterion	34.81122
Log likelihood	-203.8975	Hannan-Quinn criter.	34.58974
F-statistic	9.501370	Durbin-Watson stat	1.191982
Prob(F-statistic)	0.005154		

SOURCE: Eview output version 9.0

Table 4.2indicates that any change in salaries and wages will increase profit after tax by 1.369317 while change in sundry employee benefit will result in an increase of 3.496591 in profit after tax. However, any change in staff training will increase profit after tax by 3.030848. In summary, profit after tax is significantly influenced positively by salaries and wages, sundry employee benefit and staff training.

Interpretation of Regression Coefficient Result
Table 4.2, indicates that an increase in salaries and wages, sundry employee benefit and staff training of Nigerian Brewery firms will increase profit after tax by 7.097481. This implies that profit after tax is affected by salaries and wages, sundry employee benefit and staff training of Nigerian Brewery firms.

Interpretation of Durbin Watson- Statistic
The Durbin-Watson statistic is 1.191982 which is not up to 2. In this case, the Durbin Watson statistic is closer to 2 than 0 which indicates the absence of autocorrelation in the series. The result indicates the absence of positive serial correlation in the time series data extracted from the annual report and accounts of Nigerian Brewery Plc.

Coefficient of Determination (R^2)
The Adjusted R-squared is 0.698664. The adjusted R^2 reveals that only about 70% of the variations in profit after tax could be explained by salaries and wages, sundry employee benefit and staff training of Nigerian Brewery Plc while about 30% could be explained by other factors capable of influencing profit after tax of Nigerian Brewery Plc as well as the error term and the unexplained variables.

4.3 Test of Hypotheses
Test of Hypothesis One
Hypothesis one seeks to evaluate the effect of salaries and wages on the profit after tax of brewery firms in Nigeria using data from Appendix 1 at 95% confidence level.

Statement of Hypothesis
Ho: Salaries and wages do not have any effect on the profit after tax of brewery firms in Nigeria.

Decision
The decision criterion is to accept H_0 if the probability of the t-Statistics > 0.05, otherwise reject. The probability of the t-Statistics of 0.0877> 0.05, therefore, we accept the alternative hypothesis while rejecting the null hypothesis to conclude that Salaries and wages have significant effect on the profit after tax of brewery firms in Nigeria.

Test of Hypothesis two
Hypothesis two seeks to evaluate the effect of sundry employee benefits on the profit after tax of Nigerian brewery firms using data from Appendix 1 at 95% confidence level.

Statement of Hypothesis
Ho: Sundry employee benefits do not have any significant effect on the profit after tax of Nigerian brewery firms.

Statement of Decision criteria:
Accept H_0 if the probability of the t-Statistics > 0.05 otherwise reject.

Decision
The decision criterion is to accept H_0 if the probability of the t-Statistics > 0.05, otherwise reject. The probability of the t-Statistics of 0.1870> 0.05, therefore, we reject the alternative hypothesis while accepting the

null hypothesis to conclude that Sundry employee benefits have significant effect on the profit after tax of Nigerian brewery firms.

Test of Hypothesis three

Hypothesis three seeks to examine the effect of staff training on the profit after tax of Nigerian brewery firmsusing data from Appendix 1 at 95% confidence level.

Statement of Hypothesis

Ho: Staff training does not have any effect on the profit after tax of Nigerian brewery firms.

Decision

The decision criterion is to accept H_0 if the probability of the t-Statistics > 0.05, otherwise reject. The probability of the t-Statistics of 0.7615 > 0.05, therefore, we accept the alternative hypothesis while rejecting the null hypothesis to conclude thatStaff training has significant effect on the profit after tax of Nigerian brewery firms.

Summary of Findings, Conclusion and Recommendations

5.1 Summary of Findings

At the end of this research work on the effect of human capital on the profitability of brewery firms in Nigeria. The researcher found out that human capital has significant effect on the profitability of brewery firms in Nigeria.

It was also observed that salaries and wages have significant effect on the profit after tax of brewery firms in Nigeria.

The study further shows that sundry employee benefits have significant effect on the profit after tax of Nigerian brewery firms.

It was also discovered that staff training has significant effect on the profit after tax of Nigerian brewery firms.

5.2 Conclusion

Researches and studies in recent times have shown that the time to focus on human capital is now; many of those researches have also proved that the era of expensing salaries and allowances is gradually coming to an end. That employee should be seen more from the point of investment in asset rather that materials used in the production of services. Notwithstanding the above importance there has been conflict on how best to measure human capital investment.

The research thereafter concluded that Investment in human capital has positive significant effect on the profitability of Nigerian brewery firms. This means that as Nigerian brewery firms invest more on their human capital, greater proportion of this effort translates into increase in profitability.

Investment on employee benefit has positive significant impact on the profit after tax of Nigerian Breweries Plc. Therefore, as more money is invested on employee benefit will enhance the performance of Nigerian brewery firms. From the foregoing, it can be said that the more investment in human made by Nigerian breweries the more change in its earnings per share. Investment in staff training impacts positively on the efficiency of Nigerian breweries employees. This means the more investment on staff training, the more efficient its employees will be.

5.3 Recommendations

The following recommendations are proffered based on the findings of the study:

i. Nigerian breweries firms should increase the salaries and wages of their employeesin other to boos their profitability. In doing that, basic motivating allowances should be introduced.

ii. Nigerian Brewery firms should critically analyse their human capital to identify areas where additiona investment is needed.

iii. There is need for Nigerian breweries to ascertain the level of staff training that can be seen to be optima so that redundancy and under utilisation would not be encouraged.

References

Andrew Carnegie (1919). Human capital: Return on investment measuring the cost of non-performance, Tennessee Human Capital Institute University of Tennessee www.TNhci.com

Andriessen, D., and Tissen, R. (2012) *Weightless Wealth: Find your Real Value in a Future of Intangibles Assets.* London: Financial Times Prentice Hall.

Barunch (2013). Human capital advantage: Developing metrics for the knowledge era". Retrieved August 27, 2013, http://www.linezine.com/4.2/articles/lbhca.htm

Becker, G. (2012), "Investments in human capital: a theoretical analysis", *Journal of Political Economy*, Vol. 70, pp. 9-44. The University of Chicago Press

Becker, G.S. (2006). *The Economic Approach to Human Behaviour.* Chicago: University of Chicago Press. In Philip S. and Somboon K. (2006) "Human capital and performance: A literature review", Judge Institute of Management, University of Cambridge

Becker, B.E. &Huselid, M.A. (2012) "Direct estimates of SDy and the implications for utility analysis". *Journal of Applied Psychology.*

Bharathi, K. G (2010) "The Intellectual Capital Performance of Banking Sector in Pakistan", *Pakistani Journal of Commerce and Social Science.* Vol 4(1)

Brummet, et al (2008), "Human Resources Management: A Challenge for Accountants", *The Accounting Review,* No. 38, June.

Cascio, W.F. (2001) *Costing human resources: The financial impact of behaviour in organisations.* Boston: PWS-Kent.

Chen, H. M. and Lin K. J, (2004), "The Role of Human Capital Cost in Accounting", *Journal of Intellectual Capital,* 5 (1), 116-130. In Amitatb, D. K. and Ravindra T. (2007) "Human Resource Accounting-A New Dimension", *Canadian Accounting Association Conference 2006.*

Davenport, T. (2009) *Human Capital: What It Is and Why People Invest In It, Jossey- Bass, San Francisco.*

David, W (2009) conference sponsored by the National Academy of Public Administration in Washington, September 2009 in Bill S. (2014) "Human Capital: Return on Investment Measuring the Cost of Non-Performance", Tennessee Human Capital Institute University of Tennessee www.TNhci.com

Delaney, J. T. and Huselid, M. A. (2006) "The impact of human resource management practices on perceptions of organizational performance". *Academy of Management Journal.* **Briarcliff Manor, NY. Vol. 39, p 94.**

Delery, J.E. (2012). "Issues of fit in strategic human resource management: Implications for research". *Human Resource Management Review* 8(3): 289-309.

Dunphy, D, ed. (2011). *Sustainability: The Corporate Challenge of the 21st Century.* Sydney: Allen & Unwin.

Eli, A. and Gilad, L. (2013) "Accounting for Human Capital when Labor Mobility is Restricted", The Recanati Graduate School of Business, Tel Aviv University, Tel Aviv Israel.

Flamholtz, E. G. (2014) *Human Resource Accounting*. Kluwer Academic Publishers (3rd Edition): Boston.

Fola, A. (2013) "Human Capital Managment: A tool for competitive advantage" *The Journal of Banking and Finance* 5(1) FITC.

Fornell, C., Johnson, M.D., Anderson, E.W., Cha, J. and Bryant, B.E. (2015), "The American Customer Satisfaction Index: nature, purpose, and findings", *Journal of Marketing*, Vol. 60, October, pp. 7-18.

Friedman, A., and Lev, B. (2014). A Surrogate Measure of the Firm's Investment in Human Resources" *Journal of Accounting Research*, No. 12, pp 235-250.

Gary, S. B. (2013) "Investment in Human Capital: A Theoretical Analysis", *Journal of Political Economy*, University of Chicago, Vol 70 No. 5 Part 2.

Guest, D.E., Michie, J, Sheehan, M, Conway, N. & Metochi, M. (2012) "Effective people management: Initial findings of the Future of Work study". London: *Chartered Institute of Personnel and Development.*

Lev, B. and Schwartz (2014), "The use of Economic Concept of Human Capital in Financial Statements", *The Accounting Review* No. 71, pp 103112.

Mavridis, O. G. (2012) "The Intellectual Capital Performance of the Japanese Banking Sector", *Journal of Intellectual Capital Vol.* 5(1).

Wealth, U. (2000) Report of the Brookings Task Force on Understanding Intangible Sources of Value Human Capital Sub-Group October, 2000.