International Journal of Business & Law Research 13(1):86-97, Jan –Mar., 2025

 www.seahipublications.org **ISSN: 2360-8986**

doi:10.5281/zenodo.14794818

Impact of Human Resources Investment on Profitability of Listed Services Firms in Nigeria

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ABSTRACT
In order for an organization to maintain a competitive edge within any given industry, it is imperative that it employs a workforce that is both highly skilled and well-informed. It is for this rationale that corporations allocate substantial financial resources towards human capital investments, encompassing recruitment, training, salaries, wages, and various compensatory mechanisms, with the aim of acquiring exceptionally talented, skilled, trained, and motivated personnel capable of enhancing organizational performance. This study examines the effect of human resources investment on the profitability of service-oriented firms listed on the Nigerian Stock Exchange (NSE). It evaluates the correlation among the variables of salaries and wages, training expenditures, pension contributions, and health-related costs (considered as independent variables) in relation to profitability (designated as the dependent variable). Data were sourced from the annual financial statements of 14 firms spanning five years (2018 to 2022) and analyzed utilizing ordinary least squares (OLS) regression methodologies. The findings, which predominantly challenge the prevailing literature, indicate that investments in human resources via salaries and wages may lead to diminished profitability for service firms as a result of excessive compensation payments. Ultimately, the study advocates for future researchers to investigate additional factors that could influence the profitability of service firms, either directly or indirectly, through the incorporation of moderating and mediating variables.
Keywords: Human Resources Investment, Profitability, Services Firms

1.0 INTRODUCTION

Resources constitute the foundational pillar of business operations. Regardless of whether an organization leverages intellectual capital or machinery, the significance of human capital remains paramount. Eze and Chiamaka (2016) contend that the skills, creativity, and competencies inherent in human resources are irreplaceable by machines. Consequently, the efficiency of human labor is requisite at all organizational levels and domains, thereby rendering both human and machine efficiencies as critical assets. To sustain these skills, creativity, and competencies within an organization, Lawler (1992) argues that for any organization to maintain competitiveness within its respective industry, it must recruit individuals who are highly skilled and knowledgeable. Accordingly, corporations allocate substantial financial resources towards human resource investments encompassing recruitment, training, salaries, wages, and various forms of compensation (Akinlo & Olayiwola, 2017) to ensure the acquisition of talented, skilled, trained, and motivated personnel capable of enhancing organizational performance. Indeed, human capital emerges as one of the most vital assets that firms possess in their quest to augment profitability. Its significance to both private and public entities necessitates ongoing investment in this asset. Human resources investment encompasses the expenditures associated with the recruitment, training, compensation, and provision of benefits to employees in return for their contributions toward the profitability of their organizations (Eze & Chiamaka, 2016).

The motivation for this study is threefold. First, there is limited evidence on the impact of human resources investment on the profitability of firms, particularly from the perspective of developing countries. Second, although there are many studies on the impact of human resources investment on profitability globally, the services sector has been largely neglected in the existing literature. Lastly, the services sector is the second largest in the Nigerian economy, contributing about 33% of the country's employment and approximately 60% of its GDP (Ehigiator, 2017). This sector surpasses the industrial sector, which contributes only 7% of total employment in Nigeria (Ehigiator, 2017). This highlights the need to study the impact of human resources investment on the profitability of service firms listed on the Nigerian Stock Exchange (NSE).

In line with this motivation, the objective of this paper is to investigate the impact of human resources investment on the profitability of service firms listed on the NSE. Specifically, the study will examine the effects of salaries and wages, training costs, pension contributions, and healthcare-related costs on the profitability of these firms. To achieve this objective, the paper is divided into five parts: this introduction, a literature review as the second section, a discussion of the methodology in the third section, an analysis of the results in the fourth section, and a conclusion with implications in the final section

2.0 LITERATURE REVIEW

Human Capital resources are considered the most critical asset a company possesses due to their value, uniqueness, and difficulty of imitation. This encompasses abilities, emotional intelligence, knowledge, experience, and skills (Belak, Aljinović Barać, & Tadić, 2009; Pivac, Aljinović Barać, & Tadić, 2017). Tchanturia, Beridze, and Kurashvili (2015) concluded that investing in human resources and accumulating abilities, emotional intelligence, knowledge, experience, skills, motivation, energy, and cultural development can foster growth and significantly impact revenue generation for company owners. This conclusion implies that investment in human resources can enhance revenue generation and ultimately increase profitability**.**

Pivac, Aljinović Barać, and Tadić (2017) asserted that human capital investment is primarily measured through employee expenditures. These expenditures, as explained by Human Capital Theory (HCT), encompass investments in education, on-the-job training, and health care, which can affect returns and earnings (Becker, 1964). In line with HCT, scholars have identified four key areas in which firms can invest in their human resources: competitive salaries and wages, training, pensions, and health care (Segun & Deborah, 2016).

2.2 Profitability

Many business and accounting researchers have been interested in the topic of firm profitability. It has been characterized in multiple ways. For example, Edom, Inah, and Adanma Eyisi (2014) describe profitability as a firm's ability to create a profit from all of its commercial activities, but Harward and Upton (2012) define profitability as the ability of a given investment to earn a return on its use. Thus, profitability can be viewed as a measure of the efficiency of corporate operations and, eventually, overall performance. Moreover, the term "profitability" is not synonymous with "efficiency." Profitability serves as an index of efficiency, guiding management toward achieving greater effectiveness. While profitability is a relevant parameter for measuring organizational efficiency, it cannot be regarded as the sole evidence of efficiency. In some cases, a significant profit does not always reflect efficiency; organizational efficiency might be attained without profit. When comparing expenditures and revenues, the net profit balance may yield a suitable result. Favorable operational efficiency is a primary factor that determines an enterprise's profitability. However, numerous other factors influence profitability, including financial leverage and debt levels.

In measuring firm performance, profitability is one of the key indicators. The performance of firms is evaluated through both financial and non-financial measures (Katone, 2015). Consequently, profitability serves as a key financial measure of firm performance. It has been assessed using various indicators, such as Profit Before Tax (PBT), Earnings Before Interest and Tax (EBIT), Return on Assets (ROA), and Return on Equity (ROE) in numerous studies. One common approach for measuring profitability in the context of human resources investment is PBT (Segun & Deborah, 2016). Katone (2015) concludes that financial measures using profitability indicators are significant measures of firm performance. Studies document that one of the vital issues impacting profitability is human resources investment (Huselid, 1995; Bosma, Van Praag, Thurik, & De Wit, 2004; Enofe, Otuya & Ovie, 2013; Omodero, Alpheaus & Ihendinihu, 2016). These human resources investments cover salaries and wages, training costs, pension contributions, and health-related costs (Segun & Deborah, 2016), which firms incur to enhance their performance and, ultimately, their profitability.

2.3 Salary

Salary is defined in accordance with Salary Theory by Li (2013) as the remuneration provided by the employer to the employee for their service, with payments made in the form of currency. Salaries refer to the fixed amount paid by the employer over a specified period, as outlined in the employment contract, typically on a monthly basis. Additionally, salary can be viewed as an investment made by the employer in human capital, facilitating smooth and effective organizational operations; it is classified as a personnel cost. In accounting, salaries are recorded in payroll accounts.

In contrast, wages are payments made on an hourly or weekly basis as compensation for services rendered. Wages may encompass all forms of remuneration, including earnings, allowances, tips, and service charges, regardless of how they are designated or calculated. Allowances can include travel expenses, attendance bonuses, commissions, and overtime pay, among others.

2.4 Training and Development Costs

Training and development involve identifying, assessing, and facilitating planned learning to help individuals develop key competencies necessary for current or future job performance (McLagan, 1983). Training and development costs refer to expenses incurred by employers for induction programs, courses, skill enhancement, workshops, and seminars aimed at improving employee job performance.

McGunnigle and Jameson (2000), Hale (2003), and Tzafrir (2006) argue that in much of the HRM literature, training and development are closely linked to work values, performance, and organizational competitiveness. McGunnigle and Jameson (2000) further state that training and development help instill corporate culture and values. Watson and D'Annunzio-Green (1996) concur, suggesting that well-designed programs significantly contribute to cultural change and enhance employee satisfaction and commitment. Williams et al. (1993) identify the training process as a crucial step toward increasing employee performance, satisfaction, and commitment, while also aligning employees with organizational values.

As new technologies are introduced, job roles may change, necessitating that employees participate in relevant training and development programs to enhance their skills (Acton and Golden, 2003; Tzafrir, 2006; Othman, 2009).

2.5 Pension Contribution

The *Encyclopedia Britannica* defines a pension as a series of periodic payments made to a person who has disengaged from employment due to age, disability, or the completion of an agreed-upon period of service. These payments generally continue for the remainder of the recipient's natural life and may sometimes extend to a spouse or other survivors. Ovie (2013) posits that pensions consist of lump-sum payments made to an employee upon disengagement from active service, with payments typically made in monthly installments. He further states that pension plans can be contributory or non-contributory; fixed or variable benefits; group or individual; insured or trustee; private or public; and single or multi-employer. In a defined contribution scheme, pension contributions are expected to be made by both the employer and employees at an agreed percentage. Thus, the contributions made by the employer can be seen as an investment, as employees perceive their future to be secured through pension savings, which can boost their performance and, ultimately, the firm's profitability.

2.6 Health Care

Health care-related investment refers to the amount spent by the employer on providing and improving employees' health care. This may also include amounts paid by the employer as premiums for employees' health insurance schemes. When provisions are made for employees' health care, it can increase their motivation to work for the benefit of the organization, ultimately enhancing organizational profitability.

2.7 Theoretical Framework and Hypotheses Development

Human Capital Theory (HCT), emerging from the seminal work of Becker (1964), serves as the theoretical framework for this study. The theory considers human capital as the productive capabilities of individuals, developed through training, skills, experience, knowledge, and compensation, which ultimately enhance the economic value of the organization (Edom et al., 2014). It posits that a highly educated workforce with relevant skills can more easily adopt and implement strategies that enhance returns on investment for firms (Izushi & Haggins, 2004). Proponents of the theory argue that education and training are investments that enhance employees’ competencies, abilities, skills, and experiences, thereby contributing to organizations’ competitive advantage and profitability. This theory has been widely applied in human resource management literature (Crook et al., 2011; Fisher, 2009; Lepak & Snell, 1999; Nafukho et al., 2004; Strober, 1990). It views human capital as a competitive resource that organizations can invest in, adding significant value as it increases productivity (Kessler & Lülfesmann, 2006; Lepak & Snell, 1999; Nafukho et al., 2004; Strober, 1990). The relevance of this theory lies in the idea that if organizations pursue goal congruence and focus on retaining top performers, the significant investments made in these employees will yield long-term benefits.

As noted, the theoretical framework of this study is grounded in HCT (Becker, 1964). The theory posits that human capital consists of the productive capabilities of individuals, which, when enhanced through training and skills development, positively impact the economic value of the organization (Edom et al., 2014). Thus, it is emphasized that when organizations pay competitive salaries and wages, train their employees, and invest in their pensions and health care, it will ultimately affect profitability. In line with this, the following conceptual framework is proposed for validation in this study.

2.7.1 Salaries and Wages and the Profitability of Service Firms

Salaries and wages are considered a component of human resources investment (Segun & Deborah, 2016; Akinlo & Olayiwola, 2016) because they are paid to employees with the expectation of receiving returns in the form of services that contribute to the profitability of firms. Consequently, studies have shown that human resources investment impacts firms’ profitability and performance (Enofe, Otuya & Ovie, 2013; Omodero, Alpheaus & Ihendinihu, 2016; Segun & Deborah, 2016; Olayiwola, 2016; Akinlo & Olayiwola, 2017). Specifically, salaries and wages, as one component of human resource investment, have been found to affect profitability (Segun & Deborah, 2016; Akinlo & Olayiwola, 2016).

However, despite several studies across various sectors, to the best of the researchers’ knowledge, no study has been conducted on the services sector in Nigeria, which is the most significant sector regarding employment generation and GDP contribution. Hence, there is a need for this study, leading to the following hypothesis:

H01: Salaries and wages do not have an impact on the profitability of firms in the services sector

2.7.2 Training Costs and the Profitability of Service Firms

Training costs refer to the expenses associated with induction, courses, skill enhancement, workshops, and seminars incurred by the employer to improve employees' job performance. These investments can subsequently impact firms' profitability and performance. Scholars such as Edom et al. (2014) and Segun and Deborah (2016) identify training costs as a component of human resource investment that can influence profitability.

Despite several studies investigating the effects of human resource accounting and investment on profitability and performance across various sectors (Enofe, Otuya & Ovie, 2013; Omodero, Alpheaus & Ihendinihu, 2016; Segun & Deborah, 2016; Olayiwola, 2016; Akinlo & Olayiwola, 2017), there is a lack of evidence regarding the impact of training costs on the profitability of firms operating in the service sector. This sector is significant due to its contributions to GDP and employment generation. Therefore, there is a need for further investigation, leading to the following hypothesis:

H02: Training costs do not have an impact on the profitability of firms in the service sector.

2.7.3 Pension Contribution and the Profitability of Service Firms

Pension contribution costs have been identified as one of the human resource investments (Segun & Deborah, 2016; Omodero, Alpheaus & Ihendinihu, 2016; Akinlo & Olayiwola, 2016) made by employers for the benefit of employees. While several studies have established that human resource investments impact firms' profitability and performance (Enofe, Otuya & Ovie, 2013; Omodero, Alpheaus & Ihendinihu, 2016; Olayiwola, 2016), pension contributions specifically have been shown to affect profitability (Segun & Deborah, 2016) and employees' personal benefits (Omodero, Alpheaus & Ihendinihu, 2016). However, such studies have not focused particularly on the service sector in Nigeria, which is the largest sector in the country and a significant contributor to GDP. To address this gap in the literature, the following hypothesis is proposed:

H03: Pension Contribution Costs do not have an impact on the profitability of firms in the services sector.

2.7.4 Health Care Costs and the Profitability of Service Firms

Health care-related costs are considered a component of human resources investments (Segun & Deborah, 2016; Olayiwola, 2016) that can affect a firm's value and profitability. Studies have established the impact of human resources accounting and investment on firms' profitability and performance (Enofe, Otuya & Ovie, 2013; Omodero, Alpheaus & Ihendinihu, 2016; Olayiwola, 2016), specifically highlighting the effect of health care-related costs on profitability (Segun & Deborah, 2016). However, the existing literature has not specifically investigated this impact for firms in the services sector, which is the largest in Nigeria in terms of GDP contribution and employment generation. To address this gap, the following hypothesis is proposed:

H04: Health care-related costs do not have an impact on the profitability of firms in the services sector.

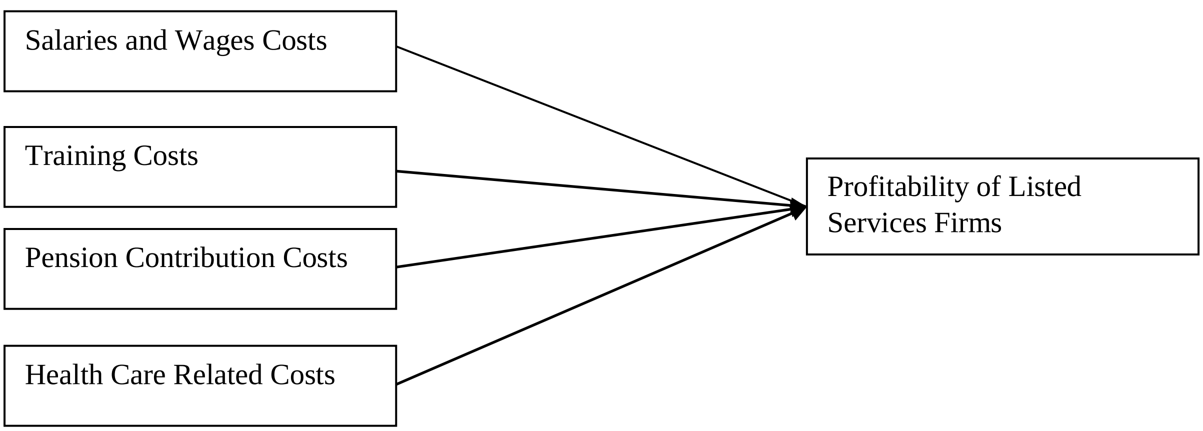

Fig. 1: Conceptual Framework of the Study Becker (1964) ; Segun & Deborah, 2016

3.0 RESEARCH METHODOLOGY

The Methodology of this research are contained in this chapter, it involve what strategy is employ for data is to be collected and analyzed.

3.1 Research Design and Philosophy

Bryman and Bell (2011) identified two fundamental research methods: quantitative and qualitative research methods, each of which relates to a different paradigm. The quantitative method, as implied by its name, relies on numbers and data that can be quantified. It is often associated with the positivist paradigm due to its objective view of reality. This method involves large-scale data collection and analysis, with the researcher striving to remain as objective as possible, ensuring that personal biases do not affect data collection and analysis. This approach enables the researcher to study the relationships between different variables (Van der Merwe, 1996; Bryman & Bell, 2011), and the findings are supported by strong statistical data.

On the other hand, the qualitative research method emphasizes words rather than numbers in collecting and analyzing data, relating to the social constructivism paradigm. Thus, it offers a more subjective and indeterminate view of knowledge. Unlike quantitative research, qualitative research observes and analyzes data to create theory independently (Van der Merwe, 1996; Bryman & Bell, 2011). Therefore, the research methods to be employed in this study will be quantitative. This choice can be justified for two reasons. Firstly, the research will utilize numerical data related to profitability, salaries and wages, training costs, pension contribution costs, and health-related costs, all of which will be extracted from companies' annual reports. Secondly, the research will test the relationships between the independent variables—salaries and wages, training costs, pension contribution costs, and health-related costs—and the dependent variable, profitability. It will also predict the impacts of human resources investment on profitability. These reasons justify the application of a quantitative research design in this study.

3.2 Population and Sample Selection

The researcher will use archival data from published accounts of 25 companies, which serve as the population for this study. For the purpose of this research, a probability sampling method will be employed. The sample will consist of 25 service firms listed on the Nigerian Stock Exchange as of October 2018, following the guidelines of Krejcie and Morgan (1970), which suggest a sample size of 24. However, due to missing data from some of these firms, only 14 were used for the analysis over a five-year period from 2018 to 2022. According to Krejcie and Morgan (1970), up to 30% of the population can be used as the sample size.

3.3 Data Analysis Instruments

Given that the methods used in this study will be quantitative and based on a positivist paradigm, the data collected from the annual reports of 14 companies over five years will form a panel dataset. Ordinary Least Squares (OLS) regression techniques (Panel Least Squares) will be utilized for data analysis. Since OLS regression will be conducted to examine the impact of human resources investment on profitability, it is essential to ensure that the assumptions of reliability and validity of the data are met prior to the principal panel regression analysis.

According to Osborne and Waters (2002), for data to be valid and reliable for multivariate regression analysis, it must satisfy four underlying assumptions: normality, reliability, linearity, and homoscedasticity. For the normality assumption, the researcher will ensure that all variables are normally distributed through visual inspection to avoid distortion of relationships and significance tests. The researcher will also verify that the relationship between dependent and independent variables is linear to avoid underestimation of the true relationship among variables, referring to theoretical frameworks and previous studies. Regarding reliability, measurements of variables must be consistent to reduce the risk of Type II error and prevent underestimation of relationships. Finally, the researcher will ensure that the variance of errors is consistent across all levels of the independent variables. All these steps are taken to ensure that the data is valid and reliable. The software used for the analysis will be EViews.

4.0 ANALYSIS AND RESULTS

This section discusses the findings and analyses conducted in this research. To achieve this, it has been divided into seven parts. The introduction provides a general overview of the chapter. Sections 4.2 to 4.5 present and analyze the results for each hypothesis. Finally, Section 4.6 summarizes the chapter.

4.1 Analysis of the Impact of Salary and Wages on Profitability of Firms within the Services Sector

It can be recalled that, in line with the theoretical framework of this study, Hypothesis One postulates that salaries and wages do not have an impact on the profitability of firms listed on the Nigerian Stock Exchange within the services sector. This hypothesis was rejected, as it was found that salary and wages have a significant negative impact on the profitability of firms in this sector. This indicates that human resources investment through salaries and wages expenditure could adversely affect profitability. The results of the analysis related to this hypothesis are presented in Table 4.1 below

Table 4.1: Results of the Impact of Salary and Wages on the Profitability Firm in Services Sector

Variable	Coefficient	Std. Error	t-Statistic	Prob.
SALARY AND WAGES	-3.142693	0.991960	-3.168164	0.0030

The results presented in Table 4.1 confirm the rejection of Null Hypothesis One, which proposed that salaries and wages do not impact the profitability of firms listed on the Nigerian Stock Exchange within the services sector. It reveals that salaries and wages have a significant negative impact on the profitability of service firms on the Nigerian Stock Exchange from 2013 to 2017, at a significance level of less than 1% ($\beta = -3.14$, $t = -3.16$, $p = 0.00$). The negative impact reported implies that an increase in expenditures related to salary and wage payments to employees decreases the profitability of the sampled firms during the covered period.

Investments in human resources through substantial remuneration packages may negatively affect profitability in service firms. This finding aligns with earlier studies suggesting that human resources investment generally (Talan, Sehrawat, & Sharma, 2017) and specifically salaries and wages expenditure could significantly impact the profitability of firms (Akinlo & Olayiwola, 2016; Davies, 2018; Segun & Deborah, 2016).

4.2 Analysis of the Impact of Employees' Training Costs on the Profitability of Firms within the Services Sector

Similar to the first hypothesis, hypothesis two was developed in line with the theoretical framework of the study. It proposed that training costs incurred for employees do not impact the profitability of firms in the services sector of the Nigerian Stock Exchange. The findings from this study support the rejection of this hypothesis. It was found that expenditures on employee training have significant negative impacts on the profitability of firms within the services sector of the Nigerian Stock Exchange. This suggests that human resources investment through employee training expenditure is likely to have an adverse effect on profitability. The results are reported in Table 4.2 below

Table 4.2: Results of the Impact of Training Costs on the Profitability Firm in Services Sector

Variable	Coefficient	Std. Error	t-Statistic	Prob.
TRAINING COSTS	-20.97517	8.152161	-2.572958	0.0140

The results presented in Table 4.2 confirm the rejection of null hypothesis two, which posited that training costs incurred for employees do not impact the profitability of firms in the services sector. The findings indicate that training costs have a significant negative impact on the profitability of firms listed in this sector on the Nigerian Stock Exchange from 2013 to 2017. This result was confirmed at a 1% level of significance ($\beta = -20.97$, $t = -2.57$, $p = 0.01$). The negative impact suggests that increased spending on training costs by services firms decreases their profitability. Substantial investment in human resources through high training expenditures may adversely affect the short-term profitability of services firms, particularly those engaged in hotel, media, transport, or logistics businesses. This finding contrasts with earlier studies that reported human resources investments, in general (Talan, Sehrawat, & Sharma, 2017), and employee training costs, in particular, have a significant positive impact on the profitability of firms (Segun & Deborah, 2016; Akinlo & Olayiwola, 2016; Omodero et al., 2016).

4.3 Analysis of the Impact of Pension Contribution Costs on the Profitability of Firms within the Services Sector

Hypothesis three, developed in line with the theoretical framework of this study, posits that pension contribution costs do not have an impact on the profitability of firms in the services sector. Unlike the findings of the previous two hypotheses, the analysis revealed that pension contribution costs incurred by firms in the services sector do not significantly affect their profitability. Consequently, the postulation of hypothesis three cannot be rejected. This indicates that human resources investment through pension contribution expenditure may have an insignificant adverse impact on the profitability of firms within the services sector. The results of this hypothesis are presented in Table 4.3 below

Table 4.3: Results of the Impact of Pension Contribution Costs on the Profitability Firm in Services Sector

Variable	Coefficient	Std. Error	t-Statistic	Prob.
PENSION	-1.566264	4.061017	-0.385683	0.7018

The results presented in Table 4.3 confirm that the null hypothesis three, which posits that pension contribution costs do not impact the profitability of firms in the services sector, cannot be rejected. The findings indicate that human resources expenditure in the form of pension contribution costs made by firms listed in the services sector of the Nigerian Stock Exchange has an insignificant negative impact on their profitability during the period of 2013-2017. The non-rejection of this hypothesis is based on the fact that the alpha is not significant at the acceptable significance levels of 1%, 5%, or even 10% (β=-1.56, t=-0.38, p=0.70).

This result implies that while an increase in human capital investment through pension contribution costs may decrease the profitability of firms within the services sector, such an impact is not statistically significant. Therefore, substantial pension contribution costs incurred by services firms may have negative implications for their profitability. This finding contrasts with earlier studies suggesting that investments in human resources generally (Talan, Sehrawat, & Sharma, 2017) and specifically through pension contributions for employees' retirement benefits could positively impact firms' profitability (Segun & Deborah, 2016; Akinlo & Olayiwola, 2016; Omodero et al., 2016).

4.4. Analysis of the Impact of Health Care Related Costs on the Profitability of Firms within the Services Sector

Hypothesis four was proposed in line with the theoretical framework of the study, positing that healthcare-related costs do not impact the profitability of firms in the services sector. However, the results from the analysis support the rejection of this hypothesis. Unlike hypotheses one and two, which revealed significant negative impacts on profitability, the results from this hypothesis indicate that healthcare-related costs have a significant positive impact on the profitability of firms in the services sector. This suggests that human resources investment through healthcare-related expenditure positively affects the profitability of these firms. The results are depicted in Table 4.4 below.

Table 4.4: Results of the Impact of Health Care Related Costs on the Profitability Firm in Services Sector

Variable	Coefficient	Std. Error	t-Statistic	Prob.
HEALTH CARE RELATED COSTS	67.42395	16.96898	3.973364	0.0003

The results presented in Table 4.4 confirm the rejection of the null hypothesis, which stated that healthcare-related costs do not impact the profitability of firms in the services sector of the Nigerian Stock Exchange. The analysis revealed that healthcare-related costs significantly positively impact the profitability of firms in this sector, with a significance level of less than 1% (β = 67.42, t = 3.73, p = 0.00).

This finding implies that increases in healthcare expenditures by firms lead to higher profitability during the period from 2013 to 2017. It shows that when service firms make adequate healthcare provisions for their employees, those employees are likely to be healthier, contributing to better performance and ultimately higher profitability for the firms. This finding is consistent with previous studies, which have shown that human resources investments made by firms generally (Talan, Sehrawat, & Sharma, 2017) and specifically healthcare-related expenditures positively impact profitability (Segun & Deborah, 2016; Olayiwola, 2016).

5.0 CONCLUSIONS AND IMPLICATIONS

This study aims to examine the impact of human resources investment on the profitability of firms in the services sector. Specifically, it investigates the effects of salaries and wages costs, training costs, pension contribution costs, and health care-related costs on the profitability of listed services firms in Nigeria. The analysis revealed that salary and wages have a significant negative impact on the profitability of services firms within the Nigerian Stock Exchange from 2013 to 2017. This indicates that an increase in expenditure on salaries and wages will decrease the profitability of firms in this sector.

Furthermore, the results concerning employees' training costs showed that investment in human resources through training expenditures has a significant negative impact on the profitability of firms listed in the services sector during the same period. This suggests that increased spending on training costs will result in decreased profitability for these firms. Regarding pension contribution costs, the analysis discovered that human resources investment in this area could have an insignificant negative impact on the profitability of firms in the services sector from 2013 to 2017. Although an increase in pension contribution costs may decrease profitability, this effect is not statistically significant.

Lastly, the results related to health care-related costs found that investment in this area has a significant positive impact on the profitability of firms in the services sector. This implies that when services firms adequately invest in health care provisions for their employees, there is a greater likelihood that employees will be healthier, leading to better firm performance and ultimately higher profitability. The study yielded interesting findings that often contradict existing literature, which is not surprising given its focus on a different industry. While earlier studies predominantly concentrated on the manufacturing (Akinlo & Olayiwola, 2016; Segun & Deborah, 2016; and Davies, 2018) and banking sectors (Onyam, Usang, and Enyisi, 2015), this research focuses on the services sector outside of the financial industry.

The findings regarding human resources investment through salaries and wages expenditure suggest that excessive salary payments could reduce the profitability of service firms. This is particularly relevant for companies engaged in hotel and accommodation, logistics and transportation, and media and publishing, which are the focus of this study. Additionally, the findings indicate that significant investments in employee training may adversely affect profitability. Companies should exercise caution in their training expenditures, and it is recommended that on-the-job or in-house training, which tends to be less expensive, be prioritized. Moreover, the findings imply that investments in human resources through pension contributions could negatively impact the profitability of firms in the hotel and accommodation, logistics and transportation, and media and publishing sectors. However, this adverse impact is not pronounced. While it is advisable for service firms to maintain pension contributions for their employees, such actions should be approached with caution to avoid negatively affecting profits.

A general recommendation based on these three aspects is that increases in salaries and wages, training expenditures, and pension contributions should be linked to employee performance. This approach will ultimately influence the firm’s performance and profitability. There should not be blanket increases in salaries, training, or pension contributions; instead, preference should be given to employees who demonstrate better performance.

Lastly, the finding related to the impact of human resources investment through health care provisions suggests that service firms involved in hotel and accommodation, logistics and transportation, and media and publishing should enhance their investment in employee health care. Such investments are likely to increase profitability and should be distributed among all employees.

5.1 Implications for Further Research

In line with the findings, this study has several implications and recommendations for future research. Firstly, the coefficient of determination (R-squared) was 0.33, indicating that the four aspects of human resources investment—salaries and wages, training costs, pension contributions, and healthcare-related costs—explain only 33% of the changes in profitability of firms in the services sector. The remaining 67% may be attributed to other factors not considered in this study. Therefore, it is recommended that future researchers explore additional factors that could impact the profitability of service firms, either directly or indirectly, by integrating moderator and mediator variables. Secondly, it is important to note that this study was conducted in Nigeria. Thus, future research should be carried out in another developing country to replicate these findings.

Lastly, it is recommended that future researchers conduct a panel analysis of firms listed in the financial sector, which includes a significant number of firms. While many studies focus on the manufacturing sector, the only existing study that targets the banking sector is that of Onyam, Usang, and Enyisi (2015), which focuses solely on Access Bank.

5.2 Practical and Theoretical Contributions

The study has both practical and theoretical contributions.

Practical Contributions: It highlights the need for service firms to be cautious in their expenditures on human resources, particularly regarding salaries and wages, training costs, and pension contributions, as these may adversely affect profitability. Additionally, it emphasizes the importance of healthcare-related expenditures for enhancing profitability.

Theoretical Contributions: The study provides new evidence and fills a gap in the existing literature regarding the scarcity of studies on the impact of human resources investment on profitability among firms in the services sector. This sector accounts for 33% of the country's employment and contributes about 60% of its GDP (Ehigiator, 2017), yet studies focusing on human resources investment and profitability in this sector are generally lacking. Furthermore, the study contributes to a broader understanding of human capital theory (Becker, 1964) by applying it not only in the services sector but also within the context of a developing country like Nigeria, where such perspectives are not extensively explored.

Despite its contributions, the study has some limitations. Firstly, it covered only five years (2018-2022), which was necessary due to time constraints experienced by the researcher. Future studies should address this limitation by expanding the time frame. Secondly, although there are about 25 firms listed within the services sector, this study only included 14 firms due to a lack of data for the omitted firms. Future research should aim to expand the number of firms covered as more data becomes available.

ACKNOWLEDGEMENT

This research was sponsored by Tertiary Education Trust Fund (TETFUND) through the Institution Based Research (IBR) grant to Abdu Gusau Polytechnic, Talata Mafara, Zamfara State

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