

## HUMAN CAPITAL COSTS AND NET PROFIT MARGIN OF LISTED INDUSTRIAL GOODS MANUFACTURING FIRMS IN NIGERIA

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### ABSTRACT

*The study was to determine the relationship between human capital costs and net profit margin of listed industrial goods manufacturing firms in Nigeria. The theory underpinning this study is Human capital theory. Ex-post facto research design was considered suitable for the study. The population of this study was thirteen (13) industrial goods manufacturing companies listed on Nigeria Exchange Group. Sample size of ten (10) firms representing about 76% (percent) of listed industrial goods firms in Nigeria was obtained. The non-probability sampling technique was adopted in this study. The findings of this study showed that human capital costs showed positive and significant relationship with net profit margin of listed industrial goods manufacturing firms in Nigeria. The study concluded that human capital costs will have a significant positive relationship on net profit margin, indicating that investments in enhancing employee skills and capabilities will lead to improved asset utilization efficiency. It was recommended that firms should prioritize strategic investments in human capital development programs to enhance skills, knowledge, and capabilities, thereby potentially improving operational efficiency, productivity, and ultimately, net profit margin.*

**Keywords: Human Capital Cost, Net Profit Margin, Industrial Good, Manufacturing Firms**

### INTRODUCTION

Corporate firms, especially, manufacturing firms in Nigeria, are faced with the increasingly challenges of human capital costs and their financial performance. Most times relating the cost to the returns on investment is devastating to employers as they do not get the desired commensurate result. Employees will be trained by a manufacturing company and before the employers realize it, these employees leave the employment. It is not always easy to quantify the cost of human capital costs. Indication from theoretical and empirical studies demonstrates that human capital costs has a positive or negative influence on the organization's performance. Also, few available studies in Nigeria such as Francis and Adesina (2018), Ali (2017), Ejike and Agha (2018), Olowolaju and Oluwasesin (2016) and Omodero and Ihendinihu (2017) did not focus on industrial goods manufacturing industry, in the light of this, there is no extant empirical studies on performance in the context of the Nigeria industrial goods manufacturing firms, which has created a gap in knowledge, that the study intend to fill specific issues related to human capital costs like in adequate investment in workforce development and training, difficulty attracting and retaining skilled employees. Inefficient utilization of human resources leading to productivity bottlenecks. Identifying shortage of skilled labour in the industrial goods manufacturing sector in Nigeria. This scarcity makes it difficult for companies to find and hire competent employees, affecting their overall performance and productivity. Training and development expenses industrial goods manufacturing firms have to invest in training and development programs to enhance the skills of their employees. These costs, including hiring trainers and organizing training sessions, can be significant and impact financial performance. High employee turnover is a common problem in the manufacturing sector in Nigeria.

### Research Hypothesis

**HO<sub>1</sub>:** There is no significant relationship between human capital cost and net profit margin of listed industrial goods manufacturing firms in Nigeria

### Concept of Human Capital Cost

Accounting is aimed at streamlining financial processes and elements. However, the principal asset, which undertakes this essential element, is Human Capital (HC), which has not been given proper importance or scope in the accounting framework in the 19th century. Though individual firms are now aware and include Human capital cost to their annual reports (human capital as assets both from investment and expenditure perspective), still, it was not well accepted either by organizations, employees, and employee unions. Human capital accounting, also known as human asset accounting, are information systems that involve the process of identifying, capturing, measuring, and analyzing the potential and the value of human capital in the firm and communicating the resultant information to the stakeholders of the firm. Human Capital cost is the method by which a cost is assigned to every employee when recruited and the value that the employee would generate in the future. It reflects the potential of the human capital of an organization in monetary terms, in its financial statements. Human Capital cost can also be explained as the measurement, which helps to recognize the costs and the value of employees as an organizational resource. This definition explains the knowledge and intellectual capabilities of employees which is becoming significant in firm decision making and firm performance. Firms can and do benefit from high levels of training, despite the lack of formal ownership, in part because it creates a corporate culture or vocabulary that teams use to create cohesion. The concept of firm-specific human capital, which includes those social relationships, individual instincts, and instructional details that are valuable within one firm (but not in general), appears in recent economic writings to explain some labour mobility issues and phenomena such as golden handcuffs. Workers can be more valuable where they are, simply because they have acquired this knowledge, skills, and instincts. As a result, the firm benefits from their unwillingness to leave and market talents eloquently. Tony (2019) discussed the advantages of investing in employee human capital development. According to him, human capital is the economic value that an employee provides through their knowledge, skills, and abilities. Total human capital costs account for nearly 70% of a company's operating expenses on average. Regardless of how much employees cost, many businesses fail to properly invest in an employee development plan, or in human capital. According to the 2015 Talent Mobility Research Report, more than 40% of organizations claim to provide little or no career planning or development. If your company is among the 40%, you should seriously reconsider your approach to human capital management.

1. **Boost Employee Satisfaction:** Investing in professional development for your employees can result in higher job satisfaction. According to a 2014 Society for Human Resource Management survey, 42 percent of employees believe their organization's commitment to professional development is very important to their job satisfaction. Internal professional development for your employees demonstrates to them that your company cares about their careers. Employees are more likely to be satisfied with their jobs if they believe their employer cares about their development.
2. **Boost Retention Rates:** When it comes to looking for work, nearly 54 percent of employees say that career advancement opportunities are more important than pay. Furthermore, 44 percent of employees cite a lack of opportunities for growth and advancement as the most stressful aspect of their jobs. These statistics demonstrate the significance of career advancement to employees. Workers who are pursuing professional education and development are less likely to seek alternative employment. As a result, if an employee can advance within the company, he or she will not need to look for opportunities outside of the company. Millennials place a high value on development opportunities. It is estimated that replacing a salaried employee will cost between six and nine months' salary. A small investment in an employee development plan can save a lot of money in terms of employee turnover.
3. **Increase Employee Engagement:** Increasing employee engagement is a top priority for any company. Employees who are engaged are more productive and loyal to the company.

According to a Gallup poll, only 32% of workers are engaged at work. Investing in employee development can aid in increasing employee engagement. Giving your employees opportunities for advancement and investing in their development gives them a reason to be engaged at work. Ideally, each company should ask its employees what areas they want to grow in and then provide opportunities in those areas. Personalize your development opportunities to get the most out of your employees.

4. **Increase Client Engagement:** Employees who are given opportunities for advancement, as previously discussed, are more likely to be satisfied with their jobs and engaged in the company. Employees are the public face of any organization. Customers are more likely to have a positive experience when they interact with staff who are engaged and satisfied. Every positive experience boosts customer engagement and satisfaction. The more satisfied your employees are, the more likely it is that your clients will be satisfied as well.
5. **Increase your Return on Investment:** Every company, whether it realizes it or not, invests in human capital. Salary, benefits and perks for your employees are all investments in your company's human capital. Spending this money but not investing a little more in employee development is analogous to paying a lot of money for a Super Bowl commercial spot but then refusing to invest in making a good commercial. That would be a terrible investment for your business. Don't just throw this money away. To maximize the return on your human capital investment, your company must invest in employee development. Improve your employees' morale by providing opportunities for growth and learning; this will, in turn, improve your bottom line.
6. **Organizational Communication Has improved:** Human capital management improves the flow of information throughout your organization. Investing in your human capital can improve communication by increasing the quantity and quality of information flowing up and down your organization. Relationships formed through a mentorship program, for example, can open up lines of communication between superiors and subordinates that would not have existed otherwise. Human capital development focuses on improving all aspects of employee performance, including communication. This process can assist your company in identifying employees who may be lacking in communication skills and assisting them in correcting the situation. When communication improves, your business improves as well. Better communication results in higher levels of employee satisfaction and engagement. This, in turn, leads to improved overall performance and productivity.
7. **Improved Recruitment:** Yes, human capital development aids in employee retention. However, it also aids in the recruitment of prospects. As more millennials enter the workforce, the importance of human capital development in the recruiting process will only grow. Gallup discovered earlier this year that opportunities to learn and grow were the most important factor for millennials when applying for jobs. Millennials want to work for a company that values their human capital. A company that already has a proven human capital plan in place can demonstrate to millennial candidates their commitment to employee development.
8. **Improved Company Culture:** Another advantage of investing in human capital is that it helps to improve the culture of your organization. Improved employee satisfaction, engagement, and communication result in a more positive overall culture. Employees want to learn, advance in their careers and look forward to going to work every day. Employees who work in a positive environment are more engaged and happier. This happy culture boosts employee productivity, which boosts your bottom line. Employees who are happy are 12 percent more productive. Companies with happy employees outperform the competition by 20.% and earn 1.2 to 1.7 percent more, according to Entrepreneur.

**Net Profit Margin:** The net profit margin, also known as the net margin, is a percentage of revenue that measures how much net income or profit is generated. It is the ratio of a company's or business segment's net profits to revenues. Net profit margin is commonly expressed as a percentage, but it

can also be expressed in decimal form. The net profit margin shows how much of a company's revenue is converted into profit per dollar of revenue collected. A net profit margin of more than 10% is generally considered excellent, though this varies depending on the industry and business structure. When combined with the gross profit margin, you can calculate the total amount of selling, general, and administrative expenses (which are located on the income statement between the gross margin and the net profit line items).

The net sales part of the equation is gross sales minus all sales deductions, such as sales allowances. The formula is:

$(\text{Net profits} \div \text{Net sales}) \times 100 = \text{Net profit margin}$

The net profit margin is affected by a number of factors, including the following:

- **Comparability:** This is because inventory turns over so quickly in one industry, such as groceries, a low net profit margin may be acceptable. In other industries, on the other hand, a high net profit margin may be required just to generate enough cash flow to buy fixed assets or fund working capital.
- **Leverage Situations:** A company may prefer to grow through debt financing rather than equity financing, in which case it will incur significant interest expenses, reducing its net profit margin. As a result, a financing decision affects the net profit margin.
- **Accounting compliance:** A company may accrue revenue and expense items to meet various accounting standards, but this may result in an inaccurate picture of its cash flows. As a result, even if cash flows are high a large depreciation expense may result in a low net profit margin.
- **Non-operating items:** The presence of unusually large non-operating gains or losses can significantly skew the net profit margin. For example, a large gain on the sale of a division could result in a large net profit margin even if the company's operating results are poor.
- **Focus on the short term:** In order to increase the net profit margin, company management could deliberately cut back on expenses that impair the company's ability to compete in the long run such as equipment maintenance, research and development and marketing. These are referred to as discretionary expenses.
- **Taxes:** A company's net profit margin can be increased if it can apply a net operating loss carry forward to its before-tax profits. Alternatively, management could try to accelerate the recognition of non-cash expenses in order to reduce the amount of tax liability that must be recorded in the current period. As a result, a specific tax-related scenario can have a significant impact.

### **The relationship between human capital cost and net profit margin**

Human capital costs can exert a significant influence on net profit margin by enhancing employee skills, productivity, and satisfaction, ultimately contributing to improved operational efficiency, reduced turnover rates, and increased customer satisfaction, thereby positively impacting the bottom line. Human capital costs are a critical investment for businesses, as they directly contribute to the skill enhancement and professional growth of employees (Newstyle & Major 2022). By providing comprehensive training programs, companies can equip their workforce with the necessary knowledge and competencies to perform their roles effectively. This leads to improved productivity levels, as employees become more adept at their tasks and are better equipped to handle challenges efficiently. Additionally, investing in employee development fosters a culture of continuous learning and innovation within the organization, which can result in the generation of new ideas and solutions to improve processes and products. Moreover, human capital cost initiatives play a crucial role in employee retention and satisfaction. When employees perceive that their company is invested in their growth and development, they are more likely to feel valued and engaged in their work. This, in turn, reduces turnover rates and associated costs such as recruitment and onboarding expenses. Furthermore, a skilled and satisfied workforce is better equipped to deliver high-quality products and services, leading to increased customer satisfaction and loyalty. From a financial perspective, while the upfront costs of training and development programs may

seem substantial, they can yield significant long-term benefits for the organization's bottom line (Xiao-Bing et al., 2021). Improved employee performance and efficiency directly contribute to cost savings through reduced errors, waste, and operational inefficiencies. Additionally, highly skilled employees are better positioned to identify opportunities for process improvements and innovation, which can further enhance the company's competitiveness and profitability. Overall, the relationship between employee training and development costs on net profit margin is multifaceted. While these investments may initially impact profitability, the long-term benefits in terms of enhanced employee performance, retention, customer satisfaction, and operational efficiency can ultimately lead to a positive impact on the bottom line (Olaoye & Afolalu 2020). Therefore, businesses should view training and development expenditures as strategic investments that contribute to sustainable growth and success. Human capital development play a crucial role in shaping the net profit margin of a company in various ways. Firstly, investing in employee enhances the skills and competencies of the workforce, thereby improving their overall performance and productivity. When employees are well-trained and equipped with the necessary knowledge and skills, they can carry out their tasks more efficiently and effectively, leading to increased output and reduced operational costs. This improvement in productivity directly contributes to higher revenues and profitability. Moreover, employee training and development initiatives contribute to employee engagement and job satisfaction. Employees who feel supported by their organization through opportunities for learning and growth are more likely to be motivated and committed to their work (Rufus et al. (2022). This increased job satisfaction can lead to lower turnover rates and associated costs, such as recruitment and training expenses for new hires. Furthermore, engaged employees are more inclined to go the extra mile to provide exceptional service to customers, leading to enhanced customer satisfaction and loyalty. Additionally, investing in employee training and development can result in innovation and process improvements within the organization. Well-trained employees are better equipped to identify inefficiencies in existing processes and suggest innovative solutions to address them. This culture of continuous improvement can lead to cost savings, increased operational efficiency, and a competitive edge in the market, all of which positively impact the company's bottom line. However, it is essential to consider the upfront costs associated with employee training and development programs (Nwauzor & Longjohn 2020). These costs may include expenses related to training materials, instructor fees, and employee time away from regular duties. In the short term, these costs may impact the company's net profit margin. However, it is crucial to view these expenses as long-term investments in the company's human capital and future success. While employee training and development costs may initially impact the net profit margin of a company, the long-term benefits far outweigh the upfront expenses. By investing in the skills, knowledge, and engagement of employees, companies can improve productivity, reduce turnover, enhance customer satisfaction, and drive innovation, all of which contribute to a healthier bottom line in the long run. Therefore, businesses should prioritize employee training and development as a strategic investment in their future growth and success.

### **Human-Capital Theory**

Human capital theory is defined as a modern extension of Adam Smith's explanation of wage differentials by the so-called net (dis) advantages between different employments by the Dictionary of Sociology. The Human Capital theory proposed by Schultz (1961) and extensively developed by Becker (1964) served as the foundation for this study. The theory derives from labour economics, a branch of economics that focuses on the general workforce in quantitative terms. According to the theory, education or training increases workers' productivity by imparting useful knowledge and skills, thereby increasing workers' future income through an increase in their lifetime earnings. According to the theory, spending on education or training and development is costly, but it should be considered an investment because it is done to increase personal income. To explain or support occupational wage differentials, the human capital approach is used. However, this study contends that education or training and development will not only increase employee personal income, but will also serve as a means of achieving corporate competitive advantage, which will ultimately reflect

in financial performance. Individuals with general skills have skills that add value to a company and are transferable across industries. For example, by acquiring employees with general management knowledge, the ability to apply financial ratios, or general cognitive ability, all competitor firms have the potential to accrue equal value. Specific skills, on the other hand, are valuable only to one firm and have no value to competing firms. Knowledge of how to use a specific technology used only by one firm, or knowledge of a firm's policies and procedures provided to that firm but usually not valuable to other firms, are examples like other assets, human capital has value in the market place, but unlike other assets, the potential value of human capital can be fully realized only with the cooperation of the person. Therefore, all costs related to eliciting productive behaviours from employees including those related to motivating, monitoring, and retaining them-constitute human capital investments made in anticipation of Future returns (Flamholtz & Lacey. 1981). Organizations can use human resource management in a variety of ways to increase their human capital (Cascio. 1991 Flamholtz & Lacey, 1981). For example, they can buy human capital in the market (e.g. by offering extensive training and development opportunities), investments of either type have associated costs, which are justifiable only to the extent the organization is able to productively utilize the accumulated capital (Tsang *et al.*, 1991). In human capital theory, contextual factors such as market conditions, unions, business strategies, and technology are important because they can affect the value of the organization's human capital and the value of the anticipated returns, such as productivity gains (e.g. Boudreau & Berger, 1985; Russell *et al.*, 1993).

According to human capital theory, the value of these investments to employees, employers, and society as a whole can be quantified. A sufficient investment in people, according to human capital theory, will result in a growing economy. Some countries, for example, provide free college education to their citizens because they recognize that a more educated population earns and spends more, thereby stimulating the economy. Human capital theory is an extension of human resource management in the field of business administration. Human capital theory is often attributed to Adam Smith, the founding father of economics, who defined it in 1776 as the acquired and useful abilities of all the inhabitants or members of the society. Smith proposed that wage disparities were based on the relative ease or difficulty of performing the jobs involved.

## **METHODOLOGY**

### **Research Design**

The design for this study was ex-post facto design. This design was ideal for this study because it helped the researcher to identify the existing level of relationships among the variables by using correlations and regression analyses. This kind of research was based on scientific and analytical examination of dependent and independent variables.

### **Population of the Study**

The population for this study, included some listed industrial goods manufacturing companies firms in Nigeria Stock Exchange (NSE) now Nigeria Exchange group (NXG). The population of interest in this study constitutes all the thirteen (13) industrial goods manufacturing companies listed on Nigeria Exchange group as at 31<sup>st</sup> December, 2022.

### **Sample Size and Sampling Technique**

The non-probability sampling technique that was adopted in this study was convenience sampling which was based on availability of financial data covering the period of 2015-2022, three firms were excluded due to inadequate financial data covering the period of study.

### **Source of Data**

The source of data collection was secondary because the study was a quantitative research and the data were available in the financial statements of the sampled companies already prepared by the management. Every empirical study requires a specific study area, which can encompass institutions or geographical regions.

**Instrument for Data Collection**

This study used quantitative research method. Data sourced from the audited and published financial statements of the sampled companies covering a period of 8 years spanning from 2015 to 2022 meaning that secondary data were used for this study. Secondary data are data collected by someone other than the user but still relevant to the research question (Shank and Orlando, 2004). This study includes two independent variables: employee training and development cost and staff welfare cost and three dependent variables: net profit margin, return on assets and return on equity.

**Method of Data Analysis**

The formulated research questions were analysed with descriptive statistics. The hypotheses were tested using the least square panel data regression analysis with the aid of E-view version 10. A simple correlation analysis was followed up by multiple linear regression analysis on the model specified below, with evaluation and analysis of the same. Firstly, the correlation analysis was necessary to see if there are strong correlation between the variables of financial performance and market value (dependent variable) and human capital costs (independent variables). The multiple linear regression analysis enabled the determination of the extent or degree of relationship between the variables and also analysis relative significance of human capital costs on financial performance of the listed firm.

**Results**

**ANOVA<sup>a</sup>**

<b>ANOVA<sup>a</sup></b>					
Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	.140	2	.070	1.066	.039 <sup>b</sup>
Residual	5.051	77	.066		
Total	5.191	79			

a. Dependent Variable: ROE

b. Predictors: (Constant), CETD, COSW

Source: SPSS OUTPUT

The ANOVA results indicate that the regression model, which includes employee training and development expenditure and staff welfare cost as predictors, is statistically significant in explaining the variance in return on equity, as evidenced by the significant F-statistic (F = 1.066, p = .039). This suggests that at least one of the predictors significantly contributes to explaining the variability in return on equity. The ANOVA results reveal that the regression model, comprising employee training and development expenditure and staff welfare cost as predictors, is statistically significant in elucidating the variance observed in return on equity, as demonstrated by the significant F-statistic (F = 1.066, p = .039). This implies that at least one of the predictors included in the model significantly contributes to explaining the variability in return on equity. However, it's important to note that while the overall model is statistically significant, further analysis may be required to discern the individual contributions of each predictor and their combined relationship with return on equity. Additionally, considering the relatively small magnitude of the F-statistic and the significance level, caution should be exercised in interpreting the practical significance of the model's explanatory power in real-world contexts.

**CONCLUSIONS**

The analysis of the relationship between human capital costs on the net profit margin of listed industrial goods manufacturing firms in Nigeria. The findings suggest that while there may be correlations between human capital costs and certain financial performance metrics, such as net profit margin, the relationship is not uniform across all indicators. Specifically, employee training and development costs may have a significant positive impact on return on assets, indicating that

investments in enhancing employee skills and capabilities can lead to improved asset utilization efficiency.

### RECOMMENDATIONS

- 1) It is recommended that firms should prioritize strategic investments in employee training and development programs to enhance skills, knowledge, and capabilities, thereby potentially improving operational efficiency, productivity, and ultimately, net profit margin.
- 2) Firms should carefully evaluate their investment in staff welfare initiatives to ensure alignment with organizational objectives and financial sustainability. While prioritizing staff welfare is essential for employee satisfaction and retention, firms should strive to strike a balance between meeting employee needs and optimizing operational costs to safeguard net profit margin amidst competitive pressures in the industry.
- 3) Firms should consider the unique implications of their organizational size when strategizing human capital investments. Larger firms may leverage their resources and infrastructure to implement more extensive human capital development initiatives, while smaller firms may focus on targeted and cost-effective programs tailored to their specific needs. Understanding the moderating role of technology can inform strategic decision-making and resource allocation, ultimately optimizing the impact of human capital investments on financial performance within the industrial goods manufacturing sector in Nigeria.

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