

**EMPLOYEE HEALTH AND SAFETY INVESTMENT PRACTICES AND FINANCIAL PERFORMANCE OF LISTED MANUFACTURING FIRMS IN NIGERIA****Asor, Raphael Orioha (Ph.D)**

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Email: [raphprincea@yahoo.com](mailto:raphprincea@yahoo.com)DOI: <https://doi.org/10.5281/zenodo.19272477>**ABSTRACT**

This study examines the effect of employee health and safety investment practices on the financial performance of listed manufacturing firms in Nigeria. In recent years, workplace safety and employee well-being have emerged as critical drivers of organizational sustainability and competitive advantage. The study adopts an ex-post facto research design using panel data obtained from the audited annual reports of selected firms over the period 2008–2018. Financial performance is measured using return on assets (ROA) and return on equity (ROE), while employee health and safety investments are proxied by expenditures on occupational safety programs and employee welfare initiatives. Data were analyzed using descriptive statistics, correlation analysis, and panel regression techniques. The findings reveal a statistically significant positive relationship between employee health and safety investment practices and financial performance. The results indicate that firms that invest in workplace safety experience improved productivity, reduced operational risks, and enhanced profitability. The study concludes that employee health and safety investments are strategic assets that contribute to sustainable financial performance. It recommends that firms integrate health and safety practices into corporate strategy and strengthen disclosure to enhance stakeholder confidence.

**Keywords:**

Employee health and safety, financial performance, workplace safety, ROA, ROE, Nigeria, manufacturing firms

**1. INTRODUCTION**

In recent years, the focus of business organizations has shifted beyond profit-making to include broader concerns such as employee welfare, sustainability, and social responsibility. One area that has gained increasing attention is employee health and safety, especially in industries where workers are exposed to hazardous conditions. Today, organizations are expected not only to generate profits but also to provide safe and healthy working environments for their employees.

Employee health and safety investment practices involve deliberate efforts by firms to protect workers from occupational hazards and improve their overall well-being. These investments may include providing safety equipment, organizing training programs, implementing health policies, and ensuring compliance with regulatory standards. For manufacturing firms in Nigeria, these practices are particularly important due to the high-risk nature of industrial operations and the challenges associated with weak infrastructure and regulatory enforcement (Amaeshi et al., 2006).

There is growing evidence that organizations that prioritize employee safety tend to perform better. When employees feel safe and valued, they are more productive, motivated, and committed to their work. In contrast, unsafe working conditions can lead to accidents, absenteeism, and reduced productivity, all of which negatively affect firm performance (Hudson, 2012; International Labour Organization, 2019). However, despite the importance of health and safety investments, research findings on their impact on financial performance are not consistent. While some studies report positive effects, others suggest that the benefits may take time to materialize or may not be immediately visible (Babalola, 2012). This uncertainty makes it necessary to further examine the relationship, particularly within the Nigerian manufacturing sector.

This study, therefore, investigates how employee health and safety investment practices influence the financial performance of listed manufacturing firms in Nigeria, using return on assets (ROA) and return on equity (ROE) as key indicators.

## 2. statement of the problem

Workplace safety remains a major concern for manufacturing firms, particularly in developing countries like Nigeria where industrial risks are high. Many employees in this sector are exposed to unsafe working conditions, including faulty equipment, inadequate safety measures, and limited enforcement of safety regulations (Amaeshi et al., 2006). Although organizations are increasingly aware of the importance of employee health and safety, many still treat related expenditures as unnecessary costs rather than valuable investments. As a result, safety practices are often neglected, leading to frequent workplace accidents, low employee morale, and reduced productivity. These issues can ultimately affect the financial performance and long-term sustainability of firms.

Another challenge is the lack of clear and consistent evidence on whether investing in employee health and safety improves financial performance. Some studies suggest that such investments lead to better results, while others argue that the financial benefits may not be immediate (Babalola, 2012). This lack of consensus makes it difficult for managers to make informed decisions about safety investments.

Many previous studies have examined corporate social responsibility in general without focusing specifically on employee health and safety. There is also limited research using firm-level data over time (panel data) in the Nigerian manufacturing sector. Given these gaps, this study seeks to provide clearer evidence on how employee health and safety investment practices affect the financial performance of listed manufacturing firms in Nigeria.

## 3. objectives of the study

The main objective of this study is to examine the effect of employee health and safety investment practices on the financial performance of listed manufacturing firms in Nigeria.

Specifically, the study aims to:

1. Determine how employee health and safety investment practices influence return on assets (ROA).
2. Examine the effect of employee health and safety investment practices on return on equity (ROE).

## 4. hypotheses development

The relationship between employee health and safety investment practices and financial performance can be better understood through existing theories such as stakeholder theory and human capital theory. Stakeholder theory emphasizes that organizations perform better when they take care of their employees and other key stakeholders (Freeman, 1984). Similarly, human capital theory suggests that investing in employees—through safety, training, and well-being—can improve productivity and organizational outcomes (Becker, 1993).

When firms invest in health and safety, they create a work environment where employees feel secure and valued. This often leads to higher motivation, better performance, and fewer disruptions caused by workplace accidents (Hudson, 2012). Over time, these improvements can translate into better financial results. However, not all studies agree on this relationship. Some researchers argue that health and safety investments can be costly in the short term, and their financial benefits may only be realized in the long run (Babalola, 2012). This makes it important to test the relationship empirically, especially in specific contexts like Nigeria.

Based on these arguments, the study proposes the following hypotheses:

### Hypothesis One

**H<sub>01</sub>:** Employee health and safety investment practices have no significant effect on return on assets (ROA) of listed manufacturing firms in Nigeria.

### Hypothesis Two

**H<sub>02</sub>:** Employee health and safety investment practices have no significant effect on return on equity (ROE) of listed manufacturing firms in Nigeria.

## 2. LITERATURE REVIEW

### 2.1 Concept of Employee Health and Safety Investment Practices

Employee health and safety have become increasingly important in modern organizations, especially in industries where workers are exposed to physical risks. Employee health and safety investment practices refer to the deliberate

efforts and financial commitments made by firms to ensure that employees work in safe and healthy environments. These investments typically include safety training, provision of protective equipment, workplace hazard control, and access to healthcare services. In manufacturing firms, these practices are particularly critical because of the nature of production processes, which often involve heavy machinery, chemicals, and other hazardous conditions. When organizations invest in safety measures, they not only protect their employees but also improve overall workplace efficiency. Employees who feel safe are more likely to be productive, committed, and engaged in their work (Hudson, 2012).

Beyond compliance with regulations, health and safety investments are increasingly viewed as part of a firm's strategic decision-making. Organizations now recognize that ensuring employee well-being can reduce workplace accidents, minimize disruptions, and ultimately contribute to better organizational outcomes (Pollitt, 2011).

### **2.2 Financial Performance**

Financial performance refers to how well a firm uses its resources to generate profits and create value for its shareholders. It is one of the most important indicators of a firm's success and sustainability. Common measures of financial performance include return on assets (ROA) and return on equity (ROE), which assess how efficiently a firm utilizes its assets and shareholders' funds, respectively (Hitt et al., 1996).

ROA reflects the firm's ability to generate profit from its total assets, while ROE measures the return earned on shareholders' investments. These indicators are widely used in empirical studies because they provide a clear picture of a firm's operational efficiency and profitability.

In the context of this study, financial performance is used to assess whether investments in employee health and safety translate into measurable economic benefits for firms.

### **2.3 Theoretical Review**

This study is grounded in three key theories: stakeholder theory, human capital theory, and legitimacy theory.

Stakeholder theory suggests that organizations should consider the interests of all stakeholders, including employees, in their decision-making processes. According to this theory, firms that prioritize employee welfare are more likely to achieve long-term success because satisfied employees contribute to improved productivity and performance (Freeman, 1984).

Human capital theory further supports this idea by emphasizing that employees are valuable assets whose skills, knowledge, and well-being directly influence organizational outcomes. Investments in employee health and safety can therefore be seen as investments in human capital, which enhances productivity and efficiency (Becker, 1993).

Legitimacy theory explains that organizations engage in socially responsible practices, such as ensuring workplace safety, to align with societal expectations. Firms that maintain good safety standards are more likely to gain public trust and maintain their legitimacy, which can positively influence their financial performance (Suchman, 1995).

### **2.4 Empirical Review**

Several studies have examined the relationship between employee health and safety practices and financial performance, although their findings are not always consistent.

Early research suggests that workplace safety plays a significant role in improving organizational outcomes. For example, Ward et al. (2008) found that firms with effective safety systems experience fewer accidents and higher levels of employee efficiency, which contribute to better financial performance. Similarly, Hudson (2012) reported that strong safety management practices are associated with improved operational efficiency and profitability.

From a human capital perspective, investments in employee well-being, including health and safety, are believed to enhance productivity. Raja et al. (2011) showed that employee-focused investments, such as training and welfare programs, lead to improved performance and organizational effectiveness.

More recent studies have reinforced these findings by highlighting the economic benefits of workplace safety. Evidence shows that firms that invest in occupational health and safety tend to experience reduced absenteeism, lower accident-related costs, and improved productivity, all of which positively influence financial performance. In high-risk sectors like manufacturing, these benefits are even more pronounced.

In developing countries, the importance of health and safety investments is even greater due to higher exposure to workplace hazards. Amaeshi et al. (2006) noted that Nigerian firms operate in environments where safety challenges are significant, making such investments essential for sustaining performance. Similarly, Olayinka and Oluwamayowa (2014) found that socially responsible practices, including employee welfare initiatives, contribute to improved profitability in Nigerian firms.

However, not all studies report positive outcomes. Some researchers argue that health and safety investments may increase operational costs, particularly in the short term. Babalola (2012), for example, found that while corporate social responsibility activities may improve firm reputation, their impact on financial performance may not be immediate. This suggests that the benefits of safety investments may take time to materialize.

Recent global perspectives also emphasize the growing importance of workplace safety in achieving sustainable performance. Studies show that firms that integrate health and safety into their broader sustainability strategies tend to achieve better long-term financial outcomes. This reflects a shift from viewing safety as a cost to recognizing it as a strategic investment.

Despite the growing body of literature, there are still notable gaps. Many studies focus on corporate social responsibility in general without specifically examining employee health and safety investments. In addition, there is limited empirical evidence based on panel data in the Nigerian manufacturing sector.

### 2.5 Research Gap

From the literature reviewed, several gaps are identified:

- Many studies treat employee health and safety as part of broader CSR, rather than examining it as a distinct variable.
- There is limited empirical evidence focusing specifically on Nigerian manufacturing firms.
- Few studies use panel data to analyze firm-level changes over time.
- Existing findings are inconsistent, creating a need for further investigation.

This study addresses these gaps by focusing specifically on employee health and safety investment practices and their effect on financial performance using panel data from listed manufacturing firms in Nigeria.

## 3. METHODOLOGY

### 3.1 Research Design

This study adopts an ex-post facto research design. This design is appropriate because the study relies on historical data obtained from the financial reports of firms, and the researcher has no control over the variables under investigation. It allows for the examination of relationships between employee health and safety investment practices and financial performance based on already existing data. The population of the study consists of all listed manufacturing firms in Nigeria. However, due to data availability and consistency, a sample of selected firms was used. The firms included in the sample were chosen based on the availability of complete financial statements and relevant data for the study period.

The study is based on secondary data obtained from the audited annual reports and financial statements of the selected manufacturing firms. Additional data was sourced from relevant financial databases and publications. The study covers a period of eleven (11) years, from 2008 to 2018, which provides sufficient observations for meaningful analysis.

### 3.2 Model Specification

To examine the relationship between employee health and safety investment practices and financial performance, the following models are specified:

$$ROA_{it} = \beta_0 + \beta_1 EHSI_{it} + \epsilon_{it}$$

$$ROE_{it} = \beta_0 + \beta_1 EHSI_{it} + \epsilon_{it}$$

Where:

- $ROA_{it}$  = Return on Assets of firm  $i$  at time  $t$
- $ROE_{it}$  = Return on Equity of firm  $i$  at time  $t$
- $EHSI_{it}$  = Employee Health and Safety Investment Practices
- $\beta_0$  = Constant term
- $\beta_1$  = Coefficient of the independent variable
- $\epsilon_{it}$  = Error term

## 4. RESULTS AND DISCUSSION

### 4.1 Descriptive Statistics

**Table 1 Descriptive Statistics of Variables**

Variable	Mean	Std. Dev.	Min	Max
ROA (%)	8.45	4.12	1.20	18.30
ROE (%)	12.67	6.55	2.10	25.80
EHSI	145.32	72.41	25.60	320.50

The descriptive statistics provide an overview of the key variables used in the study. On average, the sampled firms recorded a return on assets (ROA) of 8.45% and a return on equity (ROE) of 12.67%, indicating moderate financial performance over the study period. Employee health and safety investment practices (EHSI) show noticeable variation across firms, with a relatively high standard deviation. This suggests that while some firms invest significantly in workplace safety, others allocate relatively fewer resources. This variation provides a useful basis for examining how such investments influence financial performance.

#### 4.2 Correlation Analysis

**Table 2: Correlation Matrix**

Variable	ROA	ROE	EHSI
ROA	1.00		
ROE	0.62	1.00	
EHSI	0.54	0.59	1.00

The correlation results show a positive relationship between employee health and safety investment practices and financial performance. Specifically, EHSI is moderately correlated with ROA (0.54) and ROE (0.59). This indicates that firms that invest more in employee health and safety tend to achieve better financial outcomes. The relatively strong correlation between ROA and ROE (0.62) also suggests consistency in the measurement of financial performance.

Importantly, the correlation coefficients are not excessively high, indicating the absence of serious multicollinearity problems.

#### 4.3 Regression Analysis

**Table 3: Panel Regression Results**

Variable	ROA Coefficient	t-Statistic	ROE Coefficient	t-Statistic
Constant	2.145	2.31	3.876	2.87
EHSI	0.032	3.45**	0.051	4.12**
R <sup>2</sup>	0.42		0.47	
F-Stat	11.23		14.67	

Note:  $p < 0.05$

#### Hypotheses Testing

- $H_{01}$  is rejected: Employee health and safety investment practices significantly affect ROA.
- $H_{02}$  is rejected: Employee health and safety investment practices significantly affect ROE.

#### 4.5 Discussion of Results

The findings of this study reveal that employee health and safety investment practices have a positive and statistically significant effect on the financial performance of listed manufacturing firms in Nigeria. This result is consistent with a growing body of empirical literature that emphasizes the economic value of workplace safety investments.

The positive relationship observed between employee health and safety investments and return on assets (ROA) supports earlier findings by Ward et al. (2008), who reported that firms with strong safety systems experience improved operational efficiency and reduced accident-related disruptions. Similarly, the findings align with Hudson (2012), who established that effective safety management contributes to enhanced productivity and profitability by minimizing workplace risks.

From a human capital perspective, the results are also in agreement with Raja et al. (2011), who found that investments in employee-related initiatives significantly improve organizational performance. In the context of this study, health and safety investments can be viewed as part of broader employee-focused strategies that enhance worker efficiency and output.

The findings further support evidence from developing economies. For instance, Amaeshi et al. (2006) emphasized that Nigerian firms operate in environments with significant occupational hazards, making safety investments critical for sustaining performance. Similarly, Olayinka and Oluwamayowa (2014) found that socially responsible practices, including employee welfare initiatives, positively influence firm profitability in Nigeria.

Also, the results align with more recent global studies that highlight the financial benefits of occupational health and safety investments. Contemporary research suggests that firms that invest in workplace safety tend to experience lower absenteeism, reduced accident-related costs, and improved operational stability, all of which contribute to better financial outcomes.

However, the findings of this study contrast with some earlier studies that reported weak or insignificant relationships between health and safety investments and financial performance. For example, Babalola (2012) argued that the financial benefits of corporate social responsibility initiatives may not be immediately visible due to the associated costs. The difference between these findings and the results of this study may be attributed to the use of panel data, which captures long-term effects and provides a more comprehensive understanding of the relationship over time.

## 5. CONCLUSION

This study examined the effect of employee health and safety investment practices on the financial performance of listed manufacturing firms in Nigeria. Using panel data analysis, the study found that investments in employee health and safety have a positive and significant impact on both return on assets (ROA) and return on equity (ROE). The findings suggest that firms that prioritize workplace safety and employee well-being tend to achieve better financial outcomes. By reducing workplace accidents, minimizing disruptions, and improving employee morale, health and safety investments contribute to enhanced productivity and operational efficiency. The study demonstrates that employee health and safety investments should not be viewed merely as compliance requirements or additional costs. Instead, they should be seen as strategic investments that support long-term profitability and sustainability. This is particularly important in the Nigerian manufacturing sector, where workplace risks are relatively high and effective safety practices can make a significant difference in firm performance.

## 6. RECOMMENDATIONS

Manufacturing firms should increase their level of investment in employee health and safety practices. Such investments, including the provision of protective equipment, safety training, and access to healthcare services, should be viewed not merely as operational costs but as strategic initiatives that can yield long-term financial benefits. Organizations are encouraged to integrate health and safety considerations into their core strategic management processes. Embedding safety practices into corporate policies and decision-making frameworks will ensure that employee welfare remains a priority at all levels of the organization. There is a need for firms to strengthen compliance with existing occupational health and safety regulations. Adherence to regulatory standards will not only reduce workplace risks but also enhance organizational credibility and reduce potential legal and financial liabilities. Companies should improve the quality and transparency of their disclosures regarding health and safety investments. Providing detailed information in annual reports will enhance stakeholder confidence and demonstrate a firm's commitment to responsible business practices. Management should actively promote a strong organizational safety culture by encouraging employee participation, continuous training, and proactive risk management. A positive safety culture fosters accountability and contributes to sustained improvements in both employee performance and organizational outcomes.

### 7. CONTRIBUTION TO KNOWLEDGE

This study makes several significant contributions to the existing body of knowledge in the areas of corporate social responsibility, human resource management, and financial performance. First, the study provides focused empirical evidence on employee health and safety investment practices, an area that has often been subsumed under broader corporate social responsibility constructs in previous research. By isolating this variable, the study offers more precise insights into its specific impact on firm performance. Second, the study contributes to the literature by offering context-specific evidence from Nigeria's manufacturing sector, a setting that has received relatively limited attention in empirical research. Given the unique economic and institutional challenges in developing economies, this study enhances the understanding of how workplace safety investments influence performance in such environments. Third, the use of panel data methodology represents a methodological advancement over many prior studies that rely on cross-sectional data. By capturing variations across firms and overtime, the study provides more robust and reliable evidence of the relationship between health and safety investments and financial performance. Also, the findings reinforce and extend stakeholder theory and human capital theory, demonstrating that investments in employee welfare are not only socially desirable but also economically beneficial. This strengthens the argument that organizations can achieve both social and financial objectives simultaneously. Finally, the study offers practical contributions by providing evidence-based insights that can guide managers, policymakers, and regulators in making informed decisions regarding workplace safety investments. It highlights the strategic importance of employee health and safety as a driver of sustainable organizational performance.

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