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Industrial Safety and Labour Turnover of Selected Multinational Firms in Port Harcourt, Rivers State.

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ABSTRACT : This study investigates the relationship between industrial safety and labour turnover among selected multinational firms in Port Harcourt, Nigeria. Specifically, the study examines how safety compliance, safety training, and safety climate influence employees' intention to remain in or leave their organizations. The study adopted a correlational research design, with a population of 280 employees drawn from five selected multinational firms. Sample size of 162 was ascertained using Krejcie and Morgan 1970 table. Data were collected through structured questionnaires administered to employees across different departments in the selected firms, and analysed using descriptive and inferential statistical tools. 136 questionnaire were properly filled and used for analysis. The reliability of the instrument was attained using the Cronbach Alpha coefficient and all the items were above 0.70 threshold. The hypotheses were tested using the Spearman Rank Order Correlation Coefficient with the aid of Statistical Package for Social Sciences version 26.0, and were carried out at 0.05 level of significance. The findings of the study revealed a significant and inverse association between industrial safety and labour turnover of multinational firms in Port Harcourt. This implies that that adherence to safety compliance procedures, regular safety training, and a positive safety climate significantly reduce labour turnover tendencies among employees. The study concludes that a robust industrial safety system enhances employee retention and organizational stability. It recommends that management of multinational firms should institutionalize effective safety policies, promote continuous safety education, and foster a supportive safety culture to minimize turnover and improve overall organizational performance.

***KEYWORDS**: Industrial Safety, Labour Turnover, Safety Climate, Safety Compliance, Safety Training.*

I. INTRODUCTION

Industrial safety remains a critical concern for organizations operating in hazardous and technologically complex environments, particularly multinational firms whose operations expose employees to diverse occupational risks. Industrial safety refers to the systems, practices, and organizational conditions aimed at preventing workplace accidents, injuries, and occupational diseases (Neal & Griffin, 2006). Beyond regulatory compliance, effective safety management has increasingly been recognized as a strategic organizational issue due to its implications for employee well-being, productivity, and workforce stability (International Labour Organization (ILO), 2023). Globally, occupational accidents and work-related illnesses continue to impose substantial human and economic costs. The ILO (2023) reports that approximately 2.9 million deaths occur annually due to work-related injuries and diseases, alongside millions of non-fatal injuries that disrupt organizational operations. These incidents are associated with productivity losses, compensation costs, and employee withdrawal behaviours, including labour turnover (Campbell Institute, 2025). As a result, organizations are under growing pressure to strengthen safety systems not only to meet legal requirements but also to retain skilled employees in increasingly competitive labour markets (Work Institute, 2024). Research in organizational behaviour suggests that employees' perceptions of workplace safety significantly influence their attitudes and decisions to remain with an employer. When organizations demonstrate commitment to safety through effective policies and practices, employees are more likely to reciprocate with positive work attitudes and continued organizational membership, consistent with the assumptions of Social Exchange Theory (Sam-Mensah et al., 2025). Conversely, unsafe working conditions have been linked to dissatisfaction, stress, reduced commitment, and increased labour turnover (Shaikh et al., 2025). Contemporary literature conceptualizes

industrial safety as a multidimensional construct encompassing safety compliance, safety training, and safety climate. Empirical studies indicate that these dimensions collectively influence safety behaviour, job satisfaction, and employee retention outcomes (Zhang et al., 2023).

In developing economies, industrial safety challenges are often intensified by weak regulatory enforcement, infrastructural deficits, and hazardous industrial environments (Akinbode et al., 2024). Nigeria represents a context where these challenges are particularly pronounced. Port Harcourt, a major industrial hub hosting multinational firms in oil and gas, manufacturing, and allied sectors, is characterized by high-risk operations that demand robust safety management systems. Despite this, empirical evidence on how specific industrial safety dimensions affect labour turnover in multinational firms operating in this context remains limited. From observation, existing studies have predominantly examined safety practices in relation to turnover intention rather than actual labour turnover, and have often treated industrial safety as a one-dimensional construct. This approach limits understanding of how distinct safety dimensions such as compliance, training, and climate interact to influence employee retention in high-risk industrial settings. Moreover, most empirical studies in this area are concentrated in developed economies, thereby constraining the generalizability of findings to developing-country contexts such as Nigeria (Akinbode et al., 2024).

Given the high financial and operational costs associated with labour turnover including recruitment expenses, loss of firm-specific knowledge, and reduced operational continuity, there is a growing need for context-specific evidence linking industrial safety practices to workforce stability (Work Institute, 2024). Addressing this gap is particularly important for multinational firms operating in Port Harcourt, where sustaining a safe and stable workforce is essential for long-term organizational performance. Consequently, this study examines the relationship between industrial safety measured through safety compliance, safety training, and safety climate and labour turnover in selected multinational firms in Port Harcourt, Nigeria.

Conceptual Framework

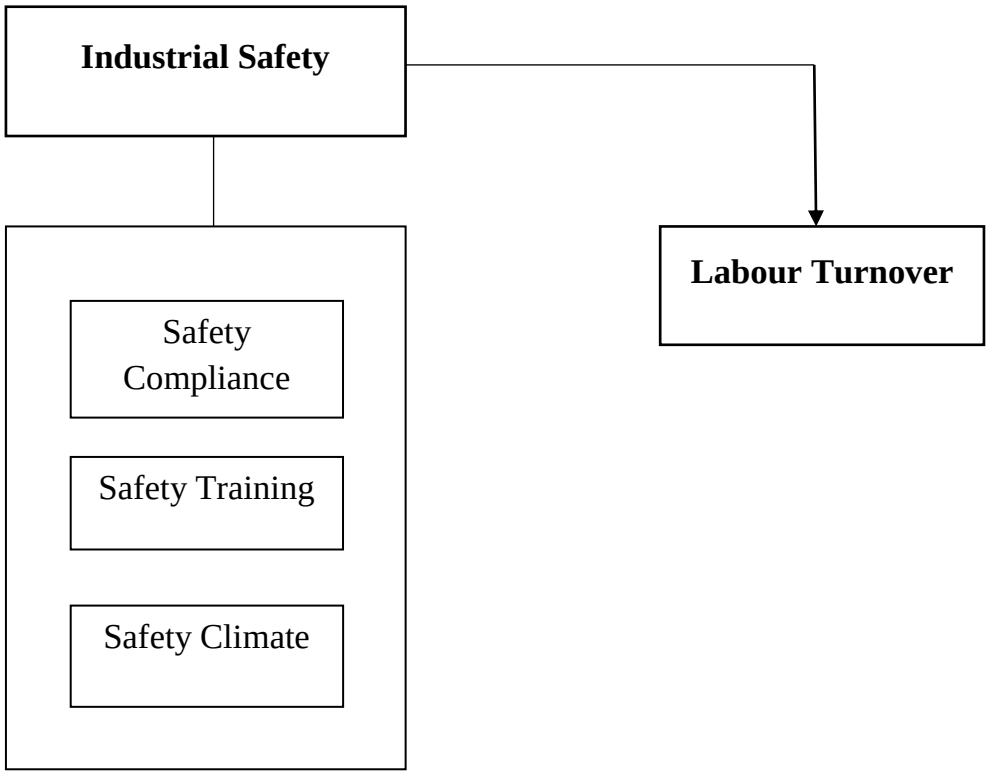

Fig 1: Conceptual Framework of Industrial Safety and Labour Turnover of Multinational Firms in Port Harcourt, Rivers State.
Source: Industrial Safety (Amah & Onuoha, 2022; Onuegbu & Onuoha, 2021) and Labour Turnover (Ofurum, 2020).

Research Hypotheses

$H0_1$: There is no significant relationship between safety compliance and labour turnover of selected multinational firms in Port Harcourt.

$H0_2$: There is no significant link between safety training and labour turnover of selected multinational firms in Port Harcourt.

$H0_3$: There is no significant association between safety climate and labour turnover of selected multinational firms in Port Harcourt.

II. LITERATURE REVIEW

Theoretical Review

The baseline theories underpinning this study are Social Exchange Theory and Heinrich Domino Theory.

The social exchange theory: This theory was propounded by Blau (1964); and is premised on human behaviour or social interaction which is an exchange of activity and can be tangible or intangible (Homan, 1961). Social Exchange Theory (SET) posits that employment relationships are based on reciprocal exchanges between employees and organizations, as well as mutual gratifications among individuals (Copranzano and Mitchell, 2005). Hence, the basic assumption of the social exchange theory is that individuals interact socially based on their expectations that such relationship will be mutually advantageous to them. The concept of reciprocity can be a determining factor on the frequency of turnover rate on the part of the employees in the social interaction. When employees perceive that the organization provides valuable resources such as a safe work environment, adequate safety training, and supportive safety policies, they feel obligated to reciprocate with positive attitudes and behaviours, including organizational commitment and reduced turnover intention. Studies consistently show that safety climate, training, and compliance systems act as organizational investments in employee wellbeing, which are reciprocated through lower turnover intentions (Acheampong et al., 2025; Dela Cruz et al., 2025; Huang et al., 2016). Thus, industrial safety can be conceptualized as a social exchange resource that fosters retention.

Heinrich Domino Theory: This theory was developed by Heinrich (1931) and further extended by Peterson (1988). The theory emphasizes that workplace accidents result from a chain of factors, which are categorized in five dominos: (i) ancestry and social environment; (ii) person's fault; (iii) unsafe act and/or condition; (iv) accident; and (v) injury. According to him, accidents are caused by unsafe acts of people and can be controlled under modern conditions of other highly efficient productivity. The theory further states that management, machine, media and man are other factors that influence an accident. Within this framework, safety training, safety compliance, and safety climate serve as preventive "domino removals" that interrupt accident causation. Empirical evidence suggests that when organizations fail to invest in safety systems, accidents, stress, dissatisfaction, and ultimately labour turnover may occur as downstream consequences.

Conversely, effective safety training, climate, and compliance reduce accidents and enhance psychological safety, indirectly lowering turnover intentions. As these measures will control the factors causing undesirable events and prevent the errors before they occur. Heinrich et al. (1980) assert that managers and supervisors can actively work to lessen hazards at the work place and the response of workers towards unsafe conditions is based on whether the worker identifies the unsafe condition. Although Heinrich's theory traditionally focuses on accident prevention, recent empirical studies extend its implications to human resource outcomes such as retention.

III. CONCEPTUAL REVIEW

Industrial Safety

Industrial safety refers to the systematic application of policies, procedures, and practices designed to protect workers from occupational hazards, prevent accidents and injuries, and sustain healthy and productive work environments (Neal & Griffin, 2006). Historically rooted in engineering and behaviour-based approaches to accident prevention, industrial safety has evolved to encompass both technical controls and psychosocial factors that influence employee behaviour and organizational outcomes (Work Institute, 2024). A robust industrial safety programme not only reduces workplace accidents but also contributes to employees' perceptions of organizational care and support factors that influence job satisfaction and turnover outcomes (Suárez-Albánchez et al., 2021). In high-risk industries such as oil and gas, manufacturing, and construction, the importance of industrial safety is magnified due to the complexity of operations and the severity of potential accidents. Similarly, industrial safety is critical not only for legal and ethical reasons but also for maintaining workforce stability and productivity (International Labour Organization (ILO) 2023). Effective industrial safety performance requires integrated systems that combine policy compliance, continuous training, and a positive safety climate to protect employees and maintain operational continuity (International Labour Organization (ILO), 2023).

Safety Compliance

Safety compliance is the behavioural dimension of industrial safety that reflects employees' adherence to formal safety rules, procedures, and regulatory standards established by the organization (Neal & Griffin,

2006). It involves following prescribed work methods, wearing personal protective equipment, and adhering to safety protocols (Zohar, 1980; Neal & Griffin, 2006). Compliance is crucial because non-adherence increases the likelihood of accidents and injuries, which can lead to operational disruptions and negative employee outcomes. Conceptually, safety compliance signals the extent to which organizational structures and enforcement mechanisms shape daily work behaviours. High levels of safety compliance have been associated with lower rates of accidents and enhanced perceptions of managerial commitment to employee welfare (Ajmal et al., 2022; Zhang et al., 2023).

Safety Training

Safety training encompasses systematic instruction and educational activities aimed at developing employees' knowledge, skills, and competencies to identify hazards and perform tasks safely (Shiri et al., 2023). It includes orientation sessions, drills, refreshers, and simulations that reinforce safe work practices (Shiri et al., 2023). Effective safety training builds cognitive awareness of risks, procedural proficiency, and confidence in safe task execution. Beyond technical competence, training conveys organizational investment in employee development, which can enhance perceived organizational support. Acheampong et al. (2025) identified safety training as a core component of occupational health and safety practices that strengthened organizational commitment. Employees who received adequate safety training perceived the organization as investing in their wellbeing, which translated into lower intentions to quit. These findings indicate that safety training functions both as a preventive mechanism against workplace accidents and as a retention strategy. Empirical evidence shows that training not only reduces unsafe acts but also improves job satisfaction and perceived preparedness factors linked to lower turnover intentions (Robson et al., 2012; Barati Jozan et al., 2023; Huang et al., 2016).

Safety Climate

Safety climate refers to shared employee perceptions regarding the priority and value that an organization places on safety relative to other objectives (Neal & Griffin, 2006). It captures beliefs about management commitment, safety communication quality, norm enforcement, prioritization of employee wellbeing, and the general psychological context in which safety behaviours occur (Zohar, 1980). A positive safety climate fosters mutual trust, open reporting of hazards, and collective engagement in safety behaviours. Unlike compliance and training, which focus on discrete practices, safety climate represents the psychosocial environment that shapes how employees interpret and enact safety policies. Empirical studies have consistently linked strong safety climates to reduced accident rates, enhanced job satisfaction, and lower turnover intentions, underscoring its importance for both safety performance and workforce stability (Balogun et al., 2020; Wang et al., 2021). Earlier but still influential evidence by Huang et al. (2016), using a national sample of workers in the United States, demonstrated that safety climate positively influenced job satisfaction and that both variables were significant negative predictors of turnover intention. Although conducted earlier, this study remains foundational and is frequently cited in recent safety–turnover research due to its robust methodology and broad sample coverage.

Labour Turnover

Labour turnover refers to the rate at which employees leave an organization and are replaced by new hires within a specified period (Ofurum, 2020). High turnover is typically costly for organizations due to recruitment expenses, training costs, and loss of institutional knowledge. Turnover intention, often measured in organizational research, is considered a proximal antecedent to actual turnover and is influenced by job satisfaction, organizational commitment, and perceptions of workplace conditions. When employees perceive their workplace as risky, poorly managed, or unsupportive, they are more likely to withdraw, seek alternative employment, or exhibit lower organizational commitment (Mobley, 1977; Work Institute, 2024). A growing body of research shows that workplace conditions including safety perceptions can influence turnover decisions. Unsafe conditions, lack of training, poor compliance enforcement, and weak safety climates contribute to stress, dissatisfaction, and burnout, which in turn elevate turnover intention and actual turnover behaviour. Empirical evidence shows that stronger safety management practices significantly reduce turnover intentions, as observed among Vietnamese migrant workers where improved safety practices correlated with lower intended turnover (Tran Hong Duc, & Lu, 2025).

Industrial Safety and Labour Turnover

The conceptual linkage between industrial safety and labour turnover rests on both behavioral and psychological mechanisms. From a behavioral perspective, poor workplace health and safety conditions are linked to higher turnover intention, reflecting employees' desire to avoid unsafe or stressful environments (Agyemang-Tawiah & Mensah, 2016). Conversely, a positive safety climate is associated with higher job satisfaction and lower turnover intention (Huang et al., 2016). From a psychological perspective, safety practices influence employees' perceptions of organizational care and support. High perceived organizational

support, often developed through consistent safety training and a positive safety climate, bolsters commitment and reduces turnover intentions (Sam-Mensah et al., 2025; Suárez-Albánchez et al., 2021). Empirical studies demonstrate that workplace safety climate significantly predicts turnover intention (Nielsen et al., 2020). Likewise, high accident rates or unsafe working conditions increase both physical risk and psychological insecurity, two leading precursors to voluntary turnover. Moreover, effective safety management systems contribute to employee engagement, reduced absenteeism, and higher morale, indirectly lowering turnover rates (Chen et al., 2022).). Furthermore, studies in mining and industrial settings demonstrate that employees who perceive stronger safety support report higher satisfaction and reduced intentions to leave (Balogun et al., 2020). In healthcare contexts, a strong safety culture reduces turnover intention by enhancing career satisfaction and mitigating negative stressors, such as compassion fatigue (Labrague, 2025). In this way, industrial safety serves both as a practical risk control mechanism and as a strategic determinant of retention Thus, the nexus between industrial safety and labour turnover is grounded in the idea that safety is a retention strategy. When employees feel protected and valued, their intention to stay rises; when safety is neglected, turnover accelerates

Empirical Review

Recent empirical studies highlight the relationship between industrial safety practices and employee turnover. Acheampong et al. (2025), in a study of security personnel in Ghanaian public universities, found that strong occupational health and safety practices captured through safety rules, management support, and training significantly enhanced organizational commitment, which in turn reduced turnover intention. Shaikh et al. (2025) found that in Pakistan's mining industry, effective safety training and compliance significantly reduced turnover intentions. Moreover, in China construction industry, Yao et al. (2025) study reveals that training is effective in reducing turnover intention among frontline employees when perceived supervisor support is also, high and moderating the relationship between employee training and turnover intentions. Likewise, Adim and Mezeh (2020) found a significant and positive correlation between health and safety training and employee performance in oil and gas companies in Rivers State, Nigeria. Furthermore, Zhang et al. (2023) showed that continuous safety training in Chinese manufacturing improved compliance and job satisfaction, lowering turnover risk. Moreover, Sam-Mensah et al. (2025) observed that adherence to safety rules and organizational safety support enhanced commitment and lowered turnover. Similarly, Mohamad Nor et al. (2025) indicated that poor safety practices in Malaysian construction sites correlated with higher turnover intentions, while Onuegbu and Onuoha (2021) reported that safety dimensions (safety supervision, safety promotion and safety commitment) have significant influence on organizational performance of the Nigerian oil and gas sector. Additionally, Dela Cruz et al. (2025), examining nurses in the Philippine healthcare sector, reported that a supportive safety climate was negatively associated with turnover intention. Their study further revealed that safety climate indirectly influenced turnover intention through career satisfaction and reduced compassion fatigue. This underscores the psychological pathways through which safety perceptions translate into retention outcomes. Also, Lingard et al. (2024), studying contractor employees, also reported that host organizations' safety climate and enforcement practices influenced contractors' turnover intentions, suggesting that compliance expectations and safety governance structures affect retention even in non-permanent employment arrangements. Collectively, these studies support the proposition that safety compliance, training, and climate are key predictors of turnover intention and retention, especially in high-risk and multinational industrial contexts.

Research Gaps

Despite extensive research on occupational health and safety, notable gaps persist. First, most studies were conducted in developed or Asian economies, leaving a contextual gap regarding multinational firms in Port Harcourt, Nigeria. Second, there is a dimensional gap, as many studies treat industrial safety as a single construct rather than examining safety compliance, training, and climate simultaneously. Third, a theoretical gap exists because few studies integrate Heinrich's Domino Theory and Social Exchange Theory (SET) to explain the safety–turnover relationship. Fourth, a methodological gap persists due to limited multi-sectoral and comparative studies within multinational contexts. Fifth, an outcome gap is evident since most prior works focus on turnover intention rather than actual labour turnover. Sixth, an industry gap exists since, most recent empirical studies focus on healthcare, construction, security services, or public sector organizations (Acheampong et al., 2025; Dela Cruz et al., 2025). There is limited empirical evidence from manufacturing, fast-moving consumer goods, logistics, and other high-risk industrial sectors, particularly in developing economies. Lastly, a temporal gap arises as post-pandemic changes in workplace safety and employee retention remain underexplored. This study seeks to bridge these gaps by empirically assessing how industrial safety dimensions influence labour turnover in selected multinational firms in Port Harcourt.

IV. METHODOLOGY

The study adopted a cross-sectional survey research design, which is appropriate for examining relationships among variables without manipulation. This design enables the collection of data from respondents

at a single point in time and is widely used in organizational and behavioral studies involving employee perceptions. The population of the study comprised 280 employees drawn from five selected multinational firms operating in Port Harcourt, Rivers State, Nigeria. These firms were selected due to their scale of operations and exposure to industrial safety risks, making them suitable for examining the relationship between industrial safety and labour turnover. A sample size of 162 respondents was determined using the Krejcie and Morgan (1970) sample size determination table for finite populations. This sample size was considered adequate for achieving representativeness and statistical reliability. The study employed a multistage sampling technique. First, stratified random sampling was adopted, with each of the five multinational firms treated as a distinct stratum to ensure representation across organizations. Second, Bowley's proportionate allocation technique was used to distribute the sample size (162) among the five firms in proportion to their respective population sizes. Finally, simple random sampling was employed within each firm to select individual respondents, ensuring that every employee had an equal chance of participation. Out of the 162 questionnaires distributed using the above procedure, 136 questionnaires were correctly completed and returned, representing an 84.0% response rate. Primary data were collected using a structured questionnaire administered to employees of the selected multinational firms. The questionnaire comprised two sections: Section A captured respondents' demographic characteristics, while Section B measured safety compliance, safety training, safety climate, and labour turnover. All measurement items were rated on a five-point Likert scale, ranging from Strongly Disagree (1) to Strongly Agree (5). Content validity of the instrument was ensured through expert evaluation by scholars in management and industrial relations. Reliability was assessed using Cronbach's Alpha, and all constructs recorded coefficients exceeding the 0.70 threshold, indicating satisfactory internal consistency. Data were coded and analyzed using the Statistical Package for Social Sciences (SPSS). Descriptive statistics were used to summarize demographic characteristics, means and standard deviation while Spearman's Rank Order Correlation Coefficient (SROCC) was employed to test the hypotheses at a 0.05 level of significance. SROCC was considered appropriate due to the ordinal nature of the Likert-scale data and the study's focus on examining the strength and direction of relationships between variables

Interpretation of Results

Table 1: Reliability Statistics of Study Variables (n=136)

S/No	Variable	Number of Items	Cronbach's Alpha (α)
1	Safety Compliance	3	0.867
2	Safety Training	3	0.893
3	Safety Climate	3	0.874
4	Labour Turnover	3	0.851

Source: Field Survey, 2025 and SPSS Version 26.0

Reliability analysis on table 1 above revealed satisfactory internal consistency for all constructs, with Cronbach's alpha values ranging from 0.851 to 0.893. Each variable was measured using three items, and all reliability coefficients exceeded the recommended 0.70 threshold, confirming the suitability of the scales for further analysis.

Table 2: Demographic Characteristics of Respondents (n = 136).

Demographic Variables	Category	Frequency	Percentage (%)
Gender	Male	75	55.1
	Female	61	44.9
Age(Years)	Below 30	32	23.5
	30- 39	56	41.2
	40-49	37	27.2
	50 and above	11	8.1
Educational Qualification	Secondary Education	18	13.2
	Diploma/OND	26	19.1
	Bachelor's degree/HND	75	55.2
	Postgraduate degree	17	12.5
Length of Service	Below 5 Years	42	30.9
	5-10 Years	51	37.5
	11-15 Years	32	23.5
	Above 15 Years	11	8.1
Job Category	Managerial	27	19.9
	Supervisory	41	30.1
	Operational	68	50.0

Source: Field Survey, 2025 and SPSS Version 26.0

The demographic characteristics of the 136 respondents on table 2 above, indicate a slightly higher proportion of males (55.1%) compared to females (44.9%). The majority of respondents were aged 30–39 years (41.2%), suggesting that most employees are within the economically active and career-oriented age group. In terms of educational qualification, more than half of the respondents held a Bachelor's degree/HND (55.2%), reflecting a relatively well-educated workforce. Regarding length of service, employees with 5–10 years of experience constituted the largest group (37.5%), followed by those with less than 5 years (30.9%), indicating a mix of new and experienced staff. Finally, the distribution of job categories showed that operational staff represented half of the sample (50%), while supervisory and managerial staff accounted for 30.1% and 19.9%, respectively. Overall, the demographic profile demonstrates a balanced representation across gender, age, education, tenure, and job roles, enhancing the generalizability and reliability of the study findings on industrial safety and labour turnover.

Table 3: Descriptive Statistics of Study Variables (n=136)

Variables/Dimensions	Mean(M)	Standard Deviation(SD)	Interpretation(Mean)
Safety Compliance	4.18	0.55	High
Safety Training	4.21	0.56	High
Safety Climate	4. 13	0.62	High
Labour Turnover	2.17	0.77	Low

Source: Field Survey, 2025 and SPSS Version 26.0

The descriptive statistics on table 3 above, shows that respondents generally reported high levels of safety compliance (M = 4.18, SD = 0.55), safety training (M = 4.21, SD = 0.56), and safety climate (M = 4.13, SD = 0.62), indicating strong adherence to safety rules, effective training, and a positive safety environment. Labour turnover was relatively low (M = 2.17, SD = 0.77), consistent with the observed negative correlations, suggesting that better safety practices are associated with reduced employee turnover.

Testing of Hypotheses (Bivariate Analysis)

For the bivariate analysis, Spearman Rank Order Correlation Coefficient was used to test the hypotheses**.** However, the scatter graph as shown in fig 2 was used to establish the existence of a relationship between the predictor variable (industrial safety) plotted on the x axis and criterion variable (labour turnover) plotted on the y axis as espoused by Neumann (2000). Fig 2 displays a strong link between industrial safety and labour turnover with R^2 of 0.926. The R^2 (linear value) slopes from right to left depicting a strong viable and negative association between the two constructs. This implies that an increase in industrial safety practices will lead to reduction in labour turnover.

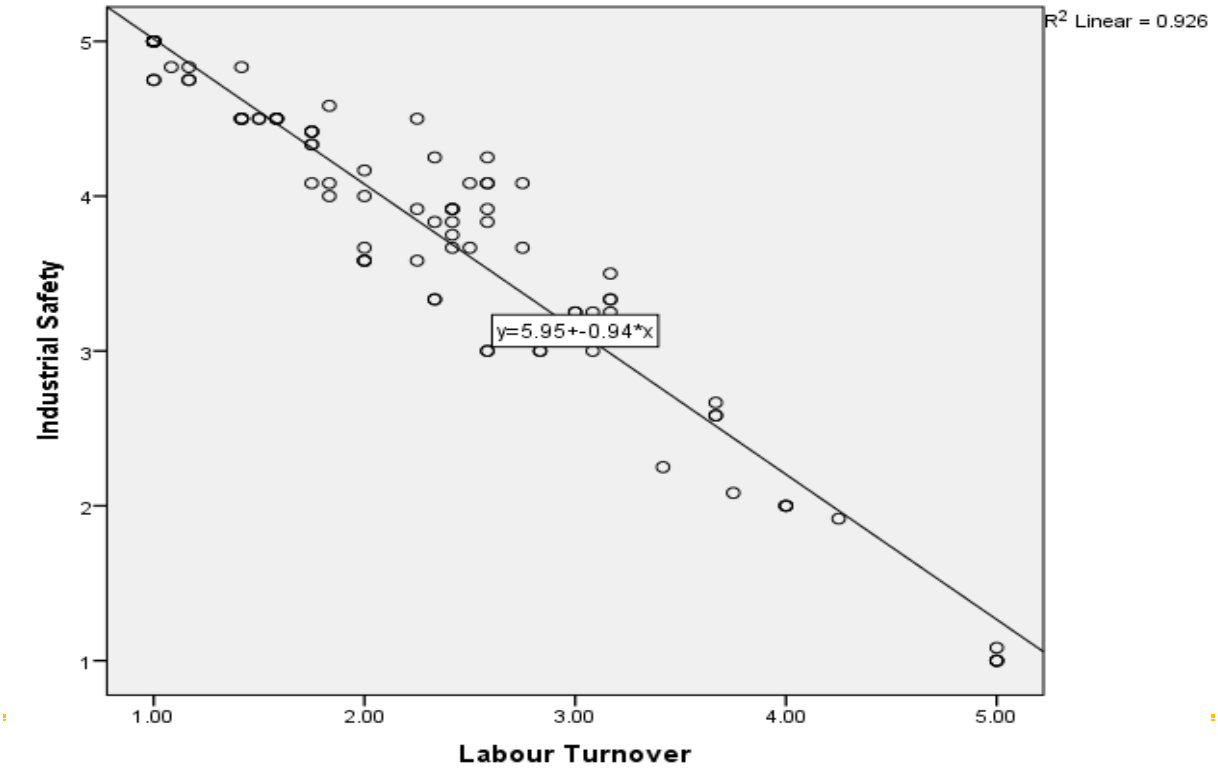

Fig 2: Scatter Graph between Industrial Safety and Labour Turnover of Multinational Firms in Port Harcourt.

Table 4: Correlation Matrix between Safety Compliance and Labour Turnover

			Safety Compliance	Labour Turnover
Spearman's rho	Safety Compliance	Correlation Coefficient	1.000	-.821**
		Sig. (2-tailed)	.	.000
		N	136	136
	Labour Turnover	Correlation Coefficient	-.821**	1.000
		Sig. (2-tailed)	.000	.
		N	136	136

**. Correlation is significant at the 0.01 level (2-tailed).
Source: Field Survey, 2025 and SPSS Version 26.0

The results in table 4 showed that there is a significant association between safety compliance and labour turnover (rho = -821; p<0.01). Based on the above findings, the earlier stated null hypothesis **$H0_1$** is hereby rejected. Thus, there is a significant and very strong negative relationship between safety compliance and labour turnover of multinational firms in Port Harcourt.

Table 5: Correlation Matrix between Safety Training and Labour Turnover

			Safety Training	Labour Turnover
Spearman's rho	Safety Training	Correlation Coefficient	1.000	-.913**
		Sig. (2-tailed)	.	.000
		N	136	136
	Labour Turnover	Correlation Coefficient	-.913**	1.000
		Sig. (2-tailed)	.000	.
		N	136	136

**. Correlation is significant at the 0.01 level (2-tailed).
Source: Field Survey, 2025 and SPSS Version 26.0

The results in table 5 revealed that there is a significant relationship between safety training and labour turnover (rho = -913; p<0.01). Therefore, based on observed finding **$H0_2$** is hereby rejected and the alternate upheld. Thus, there is a significant and very strong negative association between safety training and labour turnover of multinational firms in Port Harcourt.

Table 3: Correlation Matrix between Safety Climate and Labour Turnover

			Safety Climate	Labour Turnover
Spearman's rho	Safety Climate	Correlation Coefficient	1.000	-.876**
		Sig. (2-tailed)	.	.000
		N	136	136
	Labour Turnover	Correlation Coefficient	-.876**	1.000
		Sig. (2-tailed)	.000	.
		N	136	136

**. Correlation is significant at the 0.01 level (2-tailed).
Source: Field Survey, 2025 and SPSS Version 26.0

The results in table 6 indicated the existence of a significant link between safety climate and labour turnover (rho =-876; p<0.01). Therefore, based on the above finding **$H0_3$** is hereby rejected and the alternate upheld. Thus, there is a significant and strong negative relationship between safety climate and labour turnover of multinational firms in Port Harcourt.

Discussion of Findings

The findings of this study indicate a strong and significant inverse relationship between industrial safety dimensions and labour turnover in selected multinational firms in Port Harcourt. Specifically, the results revealed a strong negative relationship between safety compliance and labour turnover (rho = -0.821; $p<0.01$). This result implies that increased adherence to safety rules and procedures significantly reduces employee turnover. The finding supports earlier empirical studies which reported that strict safety compliance enhances employees' perceptions of organizational care and reduces withdrawal behaviours. For instance, Zhang et al. (2023) found that consistent safety compliance was associated with higher job satisfaction and lower turnover intention among manufacturing employees. Similarly, Smith (2018) reported that employees working in organizations with strong safety enforcement mechanisms were less likely to consider leaving their jobs. The analysis further revealed a very strong negative association between safety training and labour turnover (rho = -0.913; $p<0.01$), indicating that safety training plays a dominant role in reducing labour turnover among multinational firms. This finding suggests that employees who receive adequate and continuous safety training develop higher confidence in handling workplace hazards and perceive stronger organizational support. This outcome corroborates prior empirical studies which established that safety training enhances job satisfaction, organizational commitment, and employee retention. Shiri et al. (2023), in a systematic review, found that continuous professional and safety-related training significantly improves employment stability. Likewise, Sam-Mensah et al. (2025) reported that organizations investing in safety-related training experienced lower turnover rates due to increased employee trust and loyalty. In addition, the study found a strong negative link between safety climate and labour turnover (ρ = rho=−0.876; $p<0.01$), indicating that a positive safety climate significantly reduces employee exit behaviour. This result suggests that when management demonstrates genuine commitment to safety, prioritizes safety over production pressures, and encourages open communication, employees are more likely to remain with the organization.

This finding is consistent with prior empirical evidence that links safety climate to retention-related outcomes. Smith (2018) reported that safety climate was a significant predictor of lower turnover intention across multiple industries, while Ofei et al. (2023) found that poor organizational climate and leadership behaviours increased turnover intentions among healthcare workers. Although these studies focused on turnover intention, the present study extends their findings by demonstrating a similar relationship with actual labour turnover in a high-risk industrial context. Theoretically, the study extends existing safety and organizational behaviour literature by empirically demonstrating that industrial safety conceptualized through safety compliance, safety training, and safety climate has implications beyond accident prevention to include labour turnover outcomes. By linking these safety dimensions to employee retention, the study strengthens Social Exchange Theory, showing that employees reciprocate organizational commitment to safety with continued organizational membership. It also broadens the application of Heinrich's Domino Theory by illustrating that unsafe conditions can trigger not only accidents but also employee withdrawal behaviours.

From a practical standpoint, the findings suggest that multinational firms in Port Harcourt should treat industrial safety as a strategic tool for workforce retention rather than merely a regulatory requirement. Consistent enforcement of safety compliance, continuous safety training, and strong management commitment to safety are essential for reducing labour turnover. For managers and policymakers, strengthening safety systems and regulatory enforcement can enhance employee confidence, reduce turnover-related costs, and promote sustainable organizational performance in high-risk industrial environments. By demonstrating strong negative relationships between safety compliance, safety training, safety climate, and labour turnover, the study confirms that industrial safety practices serve not only as accident-prevention mechanisms but also as strategic tools for employee retention. The results further extend prior empirical studies by providing context-specific evidence from multinational firms operating in Port Harcourt, thereby contributing to the growing body of safety and retention literature in developing economies. Overall, the findings of this study are consistent with existing empirical literature and provide robust evidence that industrial safety is a critical determinant of labour turnover in multinational firms.

V. CONCLUSION

This study examined the relationship between industrial safety and labour turnover in selected multinational firms in Port Harcourt, Nigeria, with particular emphasis on safety compliance, safety training, and safety climate. The findings demonstrate that industrial safety is a critical determinant of workforce stability, as employees' perceptions of organizational commitment to safety significantly influence their decisions to remain with or leave an organization. By adopting a multidimensional approach to industrial safety, the study provides empirical evidence that safety practices extend beyond accident prevention to shape employee attitudes and retention outcomes. The results reinforce the relevance of Social Exchange Theory and Heinrich's Domino Theory in explaining labour turnover within high-risk industrial environments. Overall, the

study concludes that strengthening industrial safety systems is essential for reducing labour turnover and promoting sustainable operations among multinational firms in Port Harcourt. However, future researchers should carry out a longitudinal studies on the study variables, as well as use other methods of analysis aimed at addressing some of the limitations of this study.

Recommendations

Based on the findings of the study, the following recommendations are proposed:

1. Strengthen Safety Compliance: Multinational firms should enforce strict adherence to safety rules and procedures through regular monitoring, audits, and disciplinary measures to minimize unsafe practices and enhance employee confidence in workplace safety.
2. Enhance Safety Training Programmes: Multinational firms should implement continuous, job-specific safety training to equip employees with the skills and knowledge required to manage workplace hazards effectively, thereby reducing turnover linked to perceived safety risks.
3. Promote a Positive Safety Climate: Management of Multinational firms should demonstrate visible commitment to safety through leadership involvement, open communication, and prioritization of safety over production pressures to foster trust and employee retention.
4. Integrate Safety into Retention Strategies: Human resource managers should incorporate safety indicators into retention policies, performance appraisal systems, and employee engagement initiatives.
5. Improve Regulatory Oversight: Government agencies and regulators should strengthen enforcement of occupational safety standards in industrial hubs such as Port Harcourt to encourage compliance and protect workers.
6. Future studies should adopt longitudinal designs, expand the scope of investigation, and examine multiple industries to strengthen casual interpretation of findings.

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