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Examining the Effectiveness of the HR Safety Measures Policy's in Curbing Industrial Accident: A Cases Study of the Construction Sector

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Abstract

The construction industry is one of the most hazardous globally, accounting for significant workplace accidents and fatalities. In Lusaka, Zambia, rapid sector growth has intensified safety concerns due to gaps in the implementation and effectiveness of human resource (HR) safety measures. This study evaluates the effectiveness of HR safety policies in Lusaka's construction sector, focusing on employee awareness, safety training, and incident reporting. Using Heinrich's Accident Causation Theory and the Safety Management Systems (SMS) model, the study employs a mixed-methods approach, combining surveys with construction workers and interviews with HR managers and safety officers. Findings reveal substantial gaps in safety awareness, with only 42% of workers familiar with emergency procedures and less than 50% consistently using personal protective equipment (PPE). Although 60% of HR managers reported the existence of safety policies, implementation was inconsistent, hindered by resource constraints and weak regulatory enforcement. Incident reporting systems were underutilized, with only 35% of accidents formally reported due to fear of retaliation and inefficiencies in response. Firms that prioritized regular training and a positive safety culture achieved a 25% reduction in accidents, emphasizing the importance of proactive HR strategies. The study concludes that while progress has been made, significant improvements are needed in training, resource allocation, and policy enforcement to enhance workplace safety.

Keywords: HR Policies, Employee Productivity, Recruitment and Selection, Training and Development

1. Introduction

1.1 Background

Globally, the construction industry faces significant safety challenges, with workplace accidents contributing to high rates of injuries and fatalities. The International Labour Organization (ILO) estimates that construction workers are five to six times more likely to experience fatal accidents than workers in other industries, underscoring the urgent need for effective safety protocols (ILO, 2022) [26]. In developed countries, stringent safety regulations and advanced safety technology have contributed to a decrease in accident rates. For example, the United States' Occupational Safety and Health Administration (OSHA) reported a steady decline in construction-related fatalities due to rigorous enforcement of safety standards and mandatory worker training (OSHA, 2021) [45]. Additionally, European Union (EU) countries have implemented comprehensive health and safety policies, incorporating digital tools for monitoring and reporting incidents to further reduce accident rates in the sector (European Agency for Safety and Health at Work, 2020) [15]. In contrast, many developing regions face challenges in enforcing safety protocols due to limited resources, regulatory constraints, and varying levels of compliance (Mutasa *et al*., 2021) [40]. In African countries such as South Africa, Kenya, and Ghana, construction-related accidents remain prevalent despite ongoing efforts to enhance safety measures. South Africa has introduced more stringent workplace safety laws, leading to a moderate decrease in workplace accidents; however, regulatory limitations and inconsistent implementation still pose risks (Nkosi *et al*., 2022) [44]. Kenya's recent initiatives to enhance safety protocols in construction have seen positive effects, although challenges persist, including a lack of comprehensive training and insufficient oversight (Omollo *et al*., 2020) [46]. In

Zambia, the construction sector has expanded rapidly, driven by government investment in infrastructure development. This growth has increased safety concerns, with frequent accidents reported across construction sites (Zambia Development Agency, 2022) [62]. Although Zambian labor laws mandate safety training and protective measures, enforcement remains inconsistent, and many companies do not fully implement safety standards, which has led to a high incidence of workplace injuries (Mulenga & Phiri, 2021) [39]. Previous studies in Zambia, such as Mwanza (2022) [41], indicate that a lack of worker awareness regarding safety measures and gaps in incident response are primary contributors to workplace accidents. These challenges highlight the importance of assessing HR safety policies' effectiveness in reducing accidents and protecting construction workers' health and safety.

1.2 Statement of the Problem

Despite the critical role of HR safety measures in reducing workplace hazards, the construction sector in Zambia continues to experience high rates of industrial accidents. This issue indicates potential gaps in safety policy awareness, implementation, and effectiveness. While safety protocols are legally mandated, compliance levels vary, resulting in injuries and fatalities that could have been prevented with proper safety enforcement (Chilufya, 2023) [8]. Additionally, a significant proportion of employees are unaware of existing safety measures, and in cases where awareness exists, adherence to safety standards remains limited (Phiri & Banda, 2022) [48]. These conditions point to a pressing need for focused research on HR safety policies, specifically assessing their effectiveness in curbing accidents in Lusaka's construction sector. The construction industry in Zambia experiences a high rate of workplace accidents, indicating significant gaps in HR safety policy awareness, implementation, and effectiveness. Although the Zambia Occupational Health and Safety Institute (ZOHSI) reports that construction accounts for over 40% of workplace injuries annually, approximately 25% of these result in severe outcomes, including disability and death (ZOHSI, 2022) [63]. This issue persists despite legal safety standards, which are inadequately enforced across many firms (ZABCEC, 2023) [61]. A survey by the Zambia Association of Building and Civil Engineering Contractors in 2023 showed that nearly 60% of workers lack sufficient training on safety protocols. Furthermore, only 35% of accidents were formally reported in 2022, suggesting underreporting and missed opportunities for preventive action (ZOHSI, 2022) [63]. The severity of accidents is exacerbated by inadequate access to personal protective equipment (PPE); only 45% of construction firms provide sufficient PPE, with inconsistent enforcement of usage (ZSHA, 2023) [64]. These gaps underline an urgent need to evaluate HR safety measures' effectiveness to improve workplace safety and reduce the frequency and severity of industrial accidents in Zambia's construction sector.

1.3 Objective of the study

The general objective of this study is to evaluate the effectiveness of HR safety policies in reducing industrial accidents within Lusaka's construction sector. Specifically, it aims to examine employee awareness of HR safety measures, assess the level of implementation of these measures in construction companies, and evaluate the effectiveness of incident reporting and response procedures in preventing future accidents.

1.4 Theoretical framework

This study is grounded in Heinrich's Accident Causation Theory, a foundational concept in safety science that emphasizes the critical role of both human behavior and environmental conditions in the occurrence of workplace accidents. Heinrich (1931) [21] argued that accidents are rarely random events; rather, they result from a sequence of unsafe acts (such as negligence or failure to follow safety protocols) and unsafe conditions (such as inadequate safety equipment or hazardous working environments). According to Heinrich, approximately 88% of all workplace accidents can be traced back to human error, 10% to unsafe conditions, and 2% to unavoidable causes, underscoring the importance of addressing preventable behavioral and systemic safety issues (Heinrich, 1931) [21]. His theory is particularly relevant to the construction sector, where physical hazards and high-risk tasks significantly elevate the likelihood of incidents, highlighting the need for rigorous HR safety policies that address both individual and organizational-level risk factors.

2. Literature Review

2.1 Employee Awareness of HR Safety Measures Policies in the Construction Sector

The construction industry is one of the most hazardous globally, with significant workplace accidents resulting in injuries, disabilities, and fatalities that pose social and economic challenges. Employee awareness of HR safety policies, including safety protocols and risk mitigation strategies, is critical for fostering safer workplaces. Research highlights that safety awareness significantly reduces accidents, though its levels vary widely due to factors like training, communication, and organizational culture (Reason, 2000) [52]. The Safety Climate Theory (Zohar, 1980) [65] suggests that a positive organizational attitude towards safety enhances employee compliance, while the Human Error Theory (Reason, 1990) [50] highlights how awareness minimizes lapses and errors. Empirical evidence from Mearns *et al*. (2003) [37] and Sawacha, Naoum, and Fong (1999) [55] underscores the importance of ongoing training and strong safety cultures in reducing workplace incidents. Globally, the construction sector accounts for 30% of workplace fatalities annually, with effective safety programs playing a vital role in mitigating risks (ILO, 2019) [25].

Developed nations, supported by regulatory frameworks like OSHA, have achieved a 25–35% reduction in workplace accidents through structured safety training and education programs (Lingard & Rowlinson, 2005; Johnson & Hall, 2020) [33, 27]. Multilingual and culturally adapted safety communications further enhance compliance, as shown by studies in diverse workforces across the U.S. and the U.K. (Menzel & Gutierrez, 2010; Jørgensen, 2016) [38, 29]. Technological innovations, such as VR training and mobile safety apps, have also proven effective, improving hazard recognition and reducing minor accidents by 15–30% (Le *et al*., 2018; CCOHS, 2019) [31, 7].

In developing countries, limited training, language barriers, and socio-economic pressures hinder safety awareness. In Zambia, where 65% of workers lack structured training, accident rates remain high (ZOHSI, 2022) [63]. Literacy and

economic constraints further complicate compliance, necessitating accessible and culturally relevant safety programs (Kheni *et al*., 2008; Mwanza, 2022) [30, 41]. Despite these challenges, firms with frequent safety training and drills in Zambia reported fewer incidents, emphasizing the critical role of regular awareness initiatives (ZSHA, 2023) [64].

2.2 The Importance of HR Safety Measures in Construction

The construction industry is recognized as one of the most hazardous sectors, contributing to a significant proportion of workplace fatalities and injuries globally. The inherently high-risk activities in construction, such as working at heights and handling heavy machinery, highlight the necessity of robust HR safety measures to mitigate risks and protect workers (Lingard & Rowlinson, 2005; Tam, Zeng & Deng, 2004) [33, 57]. Implementing effective HR safety practices fosters a proactive culture of safety, addressing behavioral and environmental risk factors, ultimately reducing workplace accidents (Fernández-Muñiz, Montes-Peón & Vázquez-Ordás, 2009) [18].

Key HR safety measures include thorough training, hazard communication, and the mandatory use of protective equipment. These practices not only reduce accident rates but also enhance workforce morale by prioritizing employee well-being (Hinze, 2006) [22]. Training programs, a central component of HR safety, empower employees to identify and mitigate hazards proactively, preventing incidents before they occur (Burke *et al*., 2006) [6]. Cooper's (2000) [10] Safety Culture Model emphasizes embedding safety deeply within organizational practices to reduce accidents effectively. Variability in the implementation of HR safety measures across organizations is influenced by leadership commitment, resource allocation, and regulatory pressures. Strong leadership commitment correlates with comprehensive safety practices and a safety-oriented culture, significantly enhancing compliance and reducing risks (Guldenmund, 2010; Dedobbeleer & Béland, 1991) [19, 12]. Conversely, some firms adopt minimal safety measures driven by regulatory compliance rather than proactive strategies, potentially limiting the establishment of a pervasive safety culture (Choudhry, Fang & Mohamed, 2007; Fang, Xie & Li, 2004) [9, 16].

Smaller firms often face financial constraints, prioritizing productivity over safety due to limited budgets, resulting in inconsistent safety practices and higher accident rates (Hallowell & Gambatese, 2009) [20]. In contrast, organizations with a strong safety culture marked by open communication and mutual accountability experience reduced accident rates and increased vigilance among workers (Mearns *et al*., 2001; Fang, Xie & Li, 2012) [36, 17].

The diverse and transient nature of the construction workforce poses additional challenges, with varying levels of safety awareness and attitudes toward compliance. Multinational projects often require culturally adapted safety training and communication to address these discrepancies and enhance effectiveness (Rowlinson & Jia, 2015) [53]. Successful HR safety measures demand integration into the organizational framework, fostering a culture that values safety at all levels and positively impacts job satisfaction, productivity, and employee retention (Lingard & Yesilyurt, 2003) [34].

2.3 Incident reporting and response procedures in preventing future industrial accidents

Incident reporting is a cornerstone of effective safety management systems, providing essential data on near-misses, unsafe conditions, and actual incidents. This process enables organizations to identify recurring hazards and implement preventative measures, thereby reducing accident risks (Jones & Fink, 2018) [28]. Robust reporting systems act as early warning mechanisms, allowing for timely interventions and continuous improvement in safety protocols (Al-Hemoud & Al-Asfoor, 2006) [1]. Historical incident data also facilitates the analysis of trends and patterns, enabling organizations to address risks proactively (Jones & Fink, 2018) [28]. A non-punitive reporting culture is critical to effective incident reporting. Punitive environments deter employees from reporting due to fear of repercussions, whereas non-punitive approaches encourage transparency and comprehensive data collection (Dekker, 2007; Probst & Estrada, 2010) [13, 49]. Organizations with non-punitive policies tend to have higher reporting rates and fewer accidents, as employees feel safe sharing information that improves safety outcomes.

Challenges to incident reporting include underreporting due to fear of reprisals or perceptions of inefficacy. McGonagle, Walsh, and Probst (2017) [35] identify underreporting as a significant barrier, especially in hierarchical organizations where employees may doubt their reports will lead to action. Simplified and accessible reporting systems are essential to overcoming these barriers and ensuring widespread participation (McGonagle *et al*., 2017) [35]. Theoretical frameworks like Reason's (1997) [51] Swiss Cheese Model emphasize the role of incident reporting as a defensive layer that identifies gaps in organizational safety measures before accidents occur. Similarly, High-Reliability Theory (HRT) highlights the value of continuous improvement and mindfulness in analyzing all incidents, including near-misses, to refine safety protocols (Weick & Sutcliffe, 2007) [59]. High-reliability organizations (HROs) leverage comprehensive reporting systems to address emerging risks proactively (Bierly & Spender, 1995) [3].

Incident response procedures complement reporting by providing structured approaches to managing and learning from incidents. Effective responses involve containment, investigation, corrective actions, and follow-up to address root causes and prevent recurrences (Hopkin, 2018) [24]. Root cause analysis (RCA) is particularly effective in identifying systemic issues and implementing targeted interventions for long-term safety improvements (Phimister *et al*., 2003) [47]. Swift and thorough incident responses are essential to mitigate risks and implement timely corrective actions (Leveson, 2011) [32].

The effectiveness of incident reporting and response systems depends on factors such as leadership commitment, employee engagement, resource availability, and organizational culture. Leadership commitment is vital, as visible support for safety initiatives fosters trust and empowers employees to report incidents (Zohar, 2002; Reason, 2000) [66, 52]. Engaged employees, who share responsibility for safety, are more likely to participate actively in reporting systems and contribute to a collaborative safety culture (Tucker & Turner, 2015; Neal & Griffin, 2006) [58, 42]. Ultimately, integrating leadership engagement and employee participation ensures the success

of incident management systems in reducing workplace hazards.

3. Research Methodology

3.1 Research Design

A mixed-methods design was used, combining quantitative surveys from 50 construction firms with qualitative interviews from managers and safety officers. Quantitative data underwent descriptive and regression analysis, while qualitative data were thematically analyzed (Braun & Clarke, 2019) [4]. Integrating both strengthened triangulation and improved validity (Creswell & Plano Clark, 2018) [11].

3.2 Target Population

The study targeted small, medium, and large construction firms in the selected region to capture diverse organizational structures and safety environments in this high-risk industry (Hinze, 2011) [23].

3.3 Sampling Design

Stratified random sampling was used to ensure proportional representation of firms by size, reducing sampling bias and improving generalizability (Taherdoost, 2016) [56].

3.4 Sample Size Determination

A sample of 50 firms was selected based on feasibility, resource constraints, and the need for adequate variability, aligning with applied research guidelines (Bryman, 2016) [5].

3.5 Data Collection Methods

Structured questionnaires captured accident trends and compliance levels, while semi-structured interviews explored practical challenges; secondary accident records were used for validation, enhancing data reliability (Saunders *et al*., 2019) [54].

3.6 Data Analysis

Quantitative data were analyzed using descriptive and inferential statistics, and qualitative interviews were thematically examined (Braun & Clarke, 2019) [4]. Combining both provided deeper insight into safety policy effectiveness.

3.7 Triangulation

Triangulation integrated survey results with interview insights to cross-validate findings, reduce method bias (Denzin, 2017) [14], and clarify discrepancies such as reported compliance versus actual enforcement (Yin, 2014) [60].

3.8 Limitations

The study faced limitations including self-report bias, restricted access to some records, a modest sample size, and limited generalizability due to the regional focus (Neuman, 2020) [43].

3.9 Ethical Considerations

Ethical compliance was ensured through informed consent, voluntary participation, confidentiality, secure data handling, cultural sensitivity, and approval from relevant ethics committees (Bell & Bryman, 2018) [2].

4. Results/Findings

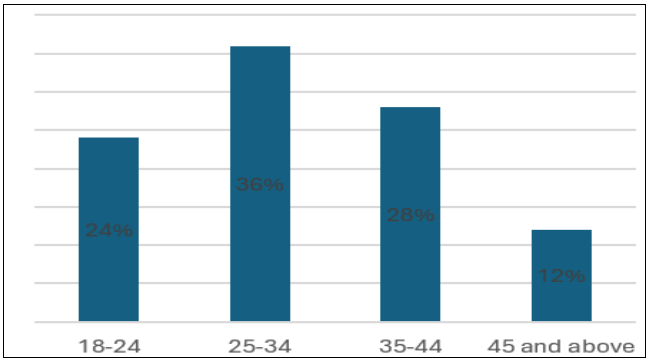

Fig 1: Age Group of the participant

The workforce is predominantly young, with 36% aged 25–34, representing a productive phase, and 24% aged 18–24, reflecting an influx of early-career professionals. Experienced employees aged 35–44 make up 28%, while only 12% are 45 and older, indicating limited retention of older workers or a preference for younger talent.

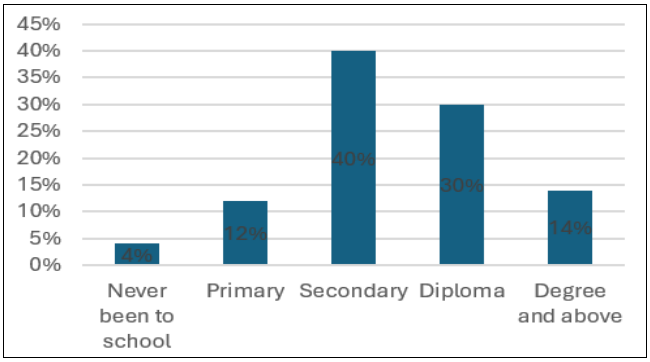

Fig 2: Highest Level of Education of the respondents

The educational profile reveals a moderately skilled workforce, with 40% having secondary education and 30% holding diplomas. Higher qualifications are held by 14%, while 12% have only primary education, and 4% have no formal education, indicating low literacy barriers overall.

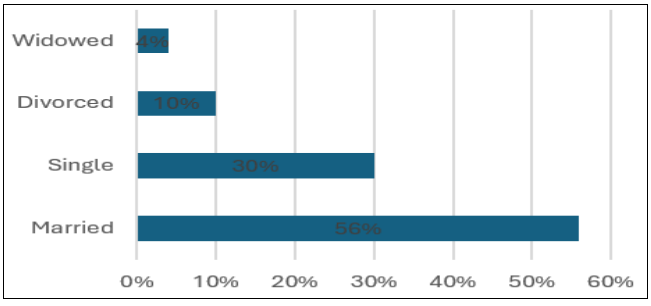

Fig 3: Marital Status of the participants

The majority of respondents (56%) are married, reflecting a workforce with family responsibilities that may impact job stability and benefit preferences. Single employees make up 30%, representing a younger demographic, while divorced (10%) and widowed (4%) individuals form smaller, potentially more flexible groups.

4.1 Employee awareness regarding HR safety measures policies

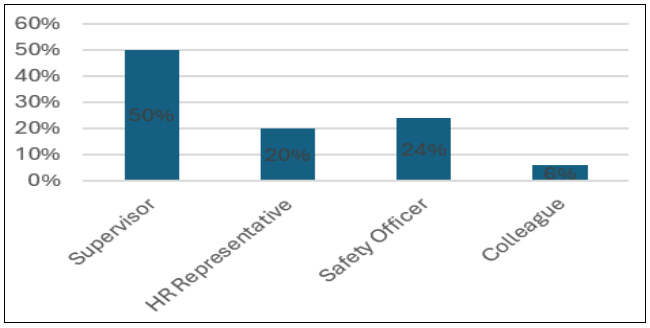

Fig 4: Responsibility for Incident Reporting

The survey reveals that 50% of respondents see supervisors as primarily responsible for incident reporting, reflecting a top-down approach to safety. Safety officers are viewed as responsible by 24%, highlighting their specialized role, while 20% identify HR as a key reporting channel for issues like interpersonal conflicts or policy violations. Only 6% see colleagues as responsible, indicating limited peer accountability. This reliance on specific roles may create bottlenecks or delays in addressing workplace safety concerns.

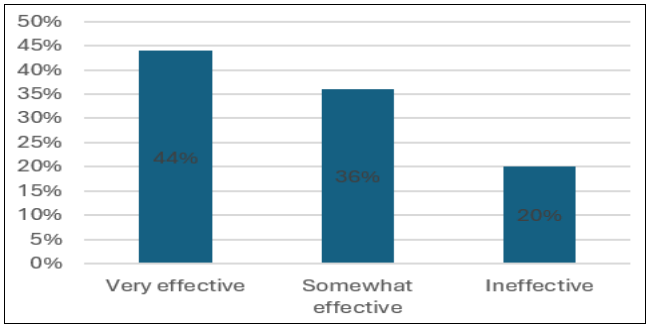

Fig 5: Effectiveness of Safety Measures

Most respondents viewed safety measures positively, with 44% rating them as very effective and 36% as somewhat effective, indicating that strategies are generally addressing key safety concerns. However, 12% were neutral, and 8% found them ineffective, highlighting gaps in implementation, communication, or enforcement. To improve effectiveness, organizations should involve employees in policy design, conduct regular audits, update protocols, and share success stories to build trust and awareness. Open dialogue and prompt responses to concerns can further enhance confidence in safety initiatives.

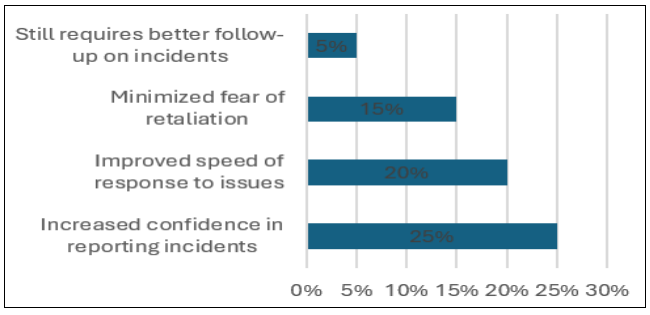

Fig 6: How well do you think the company's response has influenced safety incident reporting among employees?

The company's response has improved incident reporting, with 35% citing increased confidence and 25% noting faster response times. Additionally, a culture of accountability (20%) and reduced fear of retaliation (15%) have encouraged reporting. However, 5% emphasized the need for better follow-up, highlighting the importance of transparent and timely handling to maintain trust and accountability.

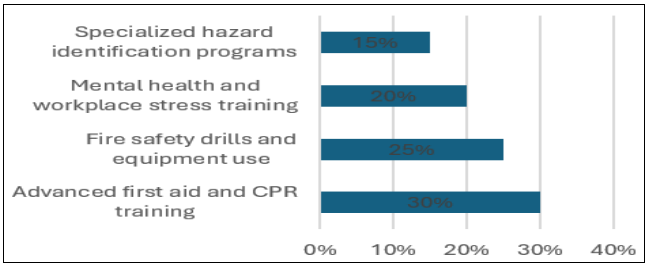

Fig 7: What safety training or resources would you like to see provided by the company to improve workplace safety?

Employees prioritized advanced first aid and CPR training (30%) and fire safety drills (25%) for practical preparedness, with 20% emphasizing mental health and workplace stress training for psychological safety. Hazard identification programs (15%) focused on proactive risk management, while e-learning modules (10%) offered flexible learning options. A holistic approach addressing both physical and mental safety is crucial.

4.2 The implementations level of HR safety measures in construction companies

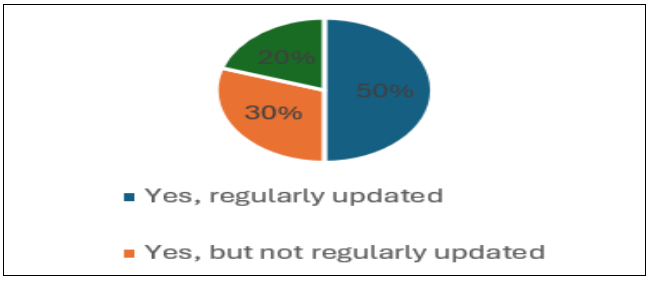

Fig 8: Written Safety Policy

Half of the respondents (50%) confirmed their companies have regularly updated written safety policies, indicating proactive safety management. However, 30% reported infrequent updates, potentially reducing policy effectiveness. Additionally, 20% stated their companies lack a formal policy, though one is planned, highlighting the need for organizations to prioritize both the creation and regular revision of safety policies to stay aligned with industry standards and emerging risks.

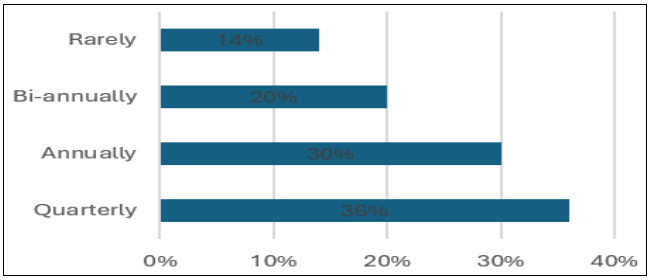

Fig 9: Frequency of Safety Training

Quarterly training sessions were most common (36%), showing a strong commitment to regular safety engagement. Annual (30%) and bi-annual (20%) sessions also occur, though less frequently. However, 14% reported rare training, highlighting gaps in consistent safety education. To maximize impact, organizations should focus on quarterly or bi-annual sessions tailored to specific workplace hazards.

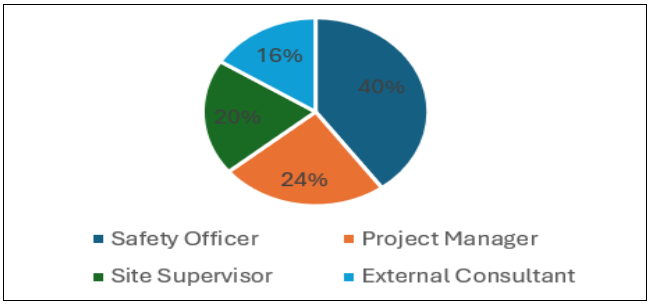

Fig 10: Responsibility for Safety Audits

Safety audits were primarily led by Safety Officers (40%), followed by Project Managers (24%) and Site Supervisors (20%). External consultants were used by 16%, suggesting a reliance on third-party expertise for objective assessments. A balanced approach, combining internal oversight with external audits, is ideal for identifying risks effectively.

4.3 Effectiveness of incident reporting and response procedures in preventing future industrial accidents

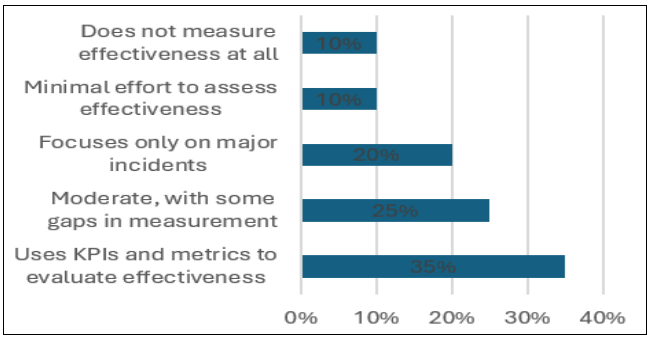

Fig 11: How effectively does your company measure the effectiveness of incident reporting and response procedures?

A significant 35% of respondents confirmed their companies have well-documented and easy-to-follow investigation processes. Thirty five percent noted mostly clear but improvable procedures, while 15% described inconsistencies in application. Alarmingly, 10% reported the absence of a formal process, and 10% said investigations were handled case-by-case.

Table 1: How does your company ensure employee engagement in incident reporting and response

Response	percentage
By creating a blame-free reporting culture	30%
Offering training on the importance of reporting	25%
Rewarding proactive reporting behavior	20%
Providing clear reporting procedures	15%
Minimal efforts, resulting in low engagement	10%
Total	100%

Thirty-five percent of respondents indicated their organizations use KPIs and metrics to measure the effectiveness of incident reporting and response. However, 25% noted moderate efforts, while 20% said the focus was limited to major incidents. Alarmingly, 10% cited minimal efforts, and another 10% reported no measurement at all. Implementing robust evaluation frameworks ensures continuous improvement and builds accountability

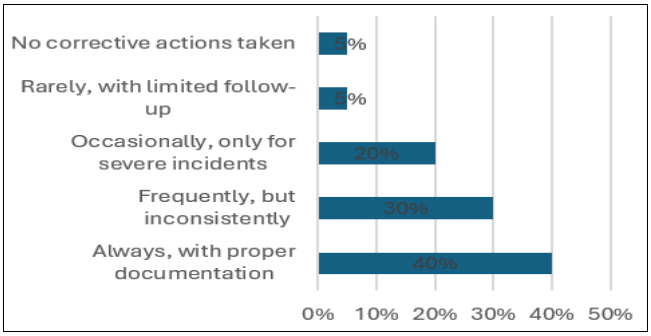

Fig 12: Has your company taken corrective actions in response to past incidents?

To enhance incident reporting, strategies included creating a blame-free culture (30%), offering training on reporting (25%), rewarding proactive behavior (20%), and providing clear procedures (15%). However, 10% noted minimal engagement efforts. Fostering a positive reporting environment is crucial for encouraging participation and improving workplace safety.

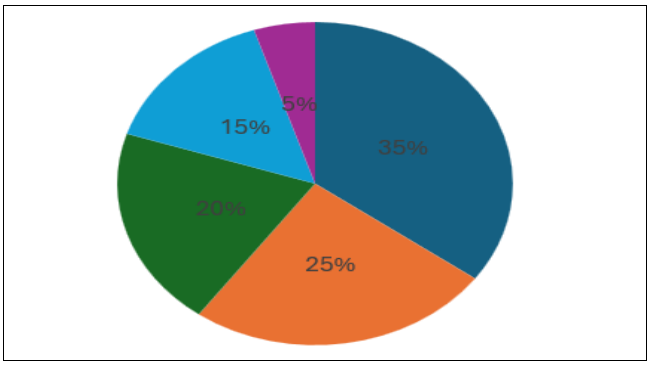

Fig 13: Has your company encountered challenges in implementing effective incident reporting and response procedures?

Challenges in incident reporting and response were cited by 35% of respondents, mainly due to resource constraints. Lack of employee awareness (25%) and inadequate training (20%) were also significant barriers. To improve, targeted training, sufficient resources, and stronger processes are needed.

4.4 Discussion and Implication of Findings

Incident reporting systems were rated as very effective by 40% of respondents, and 30% described them as somewhat effective. However, 20% expressed neutrality, and 10% found them ineffective. The study highlighted the need for clear mechanisms, prompt follow-ups, and transparent communication to improve trust and effectiveness.

Structured Processes for Hazard Mitigation

The findings revealed that 40% of respondents worked in organizations with structured hazard mitigation processes, often through regular audits, while 25% relied on

departmental initiatives, 20% had outdated processes, and 15% lacked a system altogether. The study highlighted the need for standardized, updated processes to effectively minimize hazards. Regarding training, 35% of organizations provided tailored site-specific programs, while 25% offered less detailed training, 20% provided occasional sessions, and 15% only conducted rare training after incidents. The study stressed the importance of proactive, site-specific training to prevent accidents. To promote engagement, 30% of respondents reported a blame-free reporting culture, 25% received training on reporting, 20% had rewards for proactive behavior, and 15% had clear reporting procedures. However, 10% experienced minimal efforts, leading to low engagement. Organizations were encouraged to create a supportive environment to empower employees to report incidents without fear of retaliation.

Corrective Actions in Response to Past Incidents

The study found that 40% of organizations consistently took corrective actions with proper documentation, while 30% reported frequent but inconsistent responses, and 20% limited actions to severe incidents. Alarmingly, 5% of organizations took rare or no corrective actions. The study emphasized the need for consistent and transparent corrective measures to maintain trust, prevent recurrence, and improve workplace safety.

Challenges in Implementing Incident Reporting and Response Procedures

The study identified several challenges in implementing effective incident reporting and response procedures. Resource constraints were cited by 35%, followed by a lack of employee awareness (25%) and inadequate training (20%). Fifteen percent reported rare challenges due to efficient processes, and 5% faced no challenges. The study recommended overcoming these barriers through targeted training, adequate resource allocation, and the establishment of robust, user-friendly processes to enhance incident management.

5. Conclusion

This study underscores the critical role of incident reporting systems and structured hazard mitigation processes in fostering workplace safety. While 40% of respondents rated incident reporting systems as very effective, 30% found them somewhat effective, highlighting room for improvement. Trust and efficiency in reporting can be enhanced through clear mechanisms, timely follow-ups, and transparent communication.

The presence of structured hazard mitigation processes in 40% of organizations highlights the value of regular audits. However, 20% of respondents reported outdated systems, and 15% had none, underscoring the urgency of standardized, updated processes. Proactive, site-specific training offered by only 35% of organizations must become a priority to minimize workplace hazards effectively. Encouragingly, 30% of organizations foster a blame-free culture, but the lack of such initiatives in 10% of cases signals a need for greater emphasis on empowerment and engagement. Corrective actions following incidents are consistent in 40% of organizations, but inconsistent or limited in 50%, indicating the need for transparency and accountability to prevent recurrences. Challenges such as resource constraints (35%), lack of employee awareness (25%), and inadequate training (20%) continue to impede effective incident management. Overcoming these barriers requires targeted training, resource allocation, and streamlined reporting systems. Ultimately, the study reinforces the necessity of fostering a culture of safety through consistent practices, open communication, and a commitment to continuous improvement. Addressing the identified gaps and challenges can significantly enhance organizational safety, build trust, and reduce workplace incidents.

6. Recommendations

1. Update and Review Safety Policies

Regularly revise safety policies to reflect industry standards and emerging risks, addressing both physical and non-physical hazards. Simplify audits and incorporate technology for improved compliance monitoring.

2. Enhance Training Programs

Conduct frequent, role-specific training (quarterly or bi-annually) using interactive and hands-on methods. Integrate training into onboarding and offer e-learning platforms for continuous skill development.

3. Promote Employee Engagement

Encourage participation by rewarding proactive safety behaviors, conducting toolbox talks, involving employees in risk assessments, and ensuring safe, anonymous reporting systems to build a strong safety culture.

4. Optimize Incident Reporting and Response

Simplify reporting systems, set clear investigation timelines, and document incidents thoroughly. Use KPIs to track and enhance the effectiveness of reporting and response processes.

7. Acknowledgments

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