Explaining How Management Safety Practices and Safety Programs Influence Job Safety and Employee Commitment: Evidence from the Ghanaian Mining Industry

Patricia Muah¹, Isaac Nyarko Adu², Michael Kyei-Frimpong³, Augustine Osei Boakye⁴

Heritage Christian College, Department of Management Studies, Accra-Ghana¹
University of Education, Department of Management Sciences, Winneba- Ghana²
University of Ghana, Department of Organization and Human Resource Management, Accra- Ghana³
Ghana Communication Technology University, Department of Management and Human Resource, Accra-Ghana⁴

ABSTRACT

Job safety was examined as a mediator of the relationship between management safety practices, safety programs, and employee commitment in Ghana's mining sector. A descriptive study approach was used, specifically a cross-sectional survey. The research discovered a clear link between management safety practices and employee commitment. It was shown that management safety measures had a strong positive association with job safety. Job safety also had a significant positive relationship with employee commitment. The connection between management safety and employee commitment was mediated by job safety. This study demonstrates how safety at the workplace boosts employees’ commitment in achieving organizational goals. The study advises organizations operating in high-risk environments to adopt industry-wide standard safety practices to ensure employees can develop the sense of attachment required for organizational growth. This can be achieved when management shows concern for employees’ safety. This is the first research to look into the link between management safety practices in the workplace and employee commitment.

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Introduction

Achieving a healthy and safe workplace has been the concern of many researchers since a structured work environment came into existence (Hofmann et al., 2017). According to Stoddart and Evans (2017), maintaining workplace health and safety is increasingly being recognized as a wide concept that greatly influences employees' quality of life in organizations. Safety and health are explained as the absence of detrimental effects emanating from one's job that deteriorates psychological, physical, and emotional well-being.
To perform their duties to the maximum, they must be physically, mentally, and emotionally sound. Hence, every organization's worker safety and health must be concerned since health and safety affect sustainability, competitiveness, and productivity. Employees are at the heart of every firm, and their talents and abilities are critical to its success (Osei Boakye et al., 2021). Therefore, employees’ well-being must not be downplayed instead be seen as the key to organizational success.

Workplace health and safety must be prioritized to ensure that employees are not injured, and that misery, suffering, and injuries are avoided (Leigh et al., 2001). As a result, ensuring that workers are not harmed can help them work longer and contribute to their economic growth and prosperity (Alli, 2008). Promoting well-being programs has several advantages. It allows people to live happier and longer lives, boost economic activity, and lower the demand for health services and the cost of illness and injury to individuals and communities (Waddell & Burton, 2006). According to World Health Organization (2013), every employee has the right to a healthy and safe job and working environment to live a productive life. However, for the most part, employees have to combat with management concerning health and safety issues. High rates of injuries at the workplace have been attributed to the insufficient or non-existence of occupational health and safety programs (Lin & Mills, 2001). The conflict between employees and management regarding health and safety issues and practices occurs because most organizations focus on profit maximization over-investment in protective measures, which management perceives as an additional cost of production (Jain et al., 2018).

The management of organizations determines the quality of health and safety measures at the workplace. Similarly, Armstrong (2009) claims that workers' well-being is based on the work-life quality offered by their employer's job description and internal safety and health standards. Workers, thus, expect their employers to take due diligence to guarantee their safety at the end of the workday. However, work-related accidents, injuries, and deaths continue to crop up at an alarming rate (Zacharatos et al., 2005). Accordingly, ensuring employees’ protection through safe jobs and implementing safety and health policies must be emphasized to reduce industrial and occupational accidents. Consequently, the purpose of the study is to analyze the mediating effect of job safety in the relationship between management safety practices and safety programs and employees’ commitment.

**Literature Review and Development of Hypotheses**

**Management Safety Practices**

Involvement of management in workplace safety is critical to the acceptance of workplace safety practices by stakeholders. To guarantee workplace safety and acceptance from other stakeholders, management must express safety concerns and ensure that everyone in the workplace understands their health and safety obligations (Brauer, 2016). Hence, management safety practices denote the extent to which management shows full concern and support for employee protection in performing their jobs and put in measures that reduce or eliminate incidences and hazards from the work environment. Fernández-Muñiz et al. (2017) believe that this can be achieved when management is proactive in safety at work. Thus, management should be enthusiastically involved in safety practices. This is fruitful when managers conduct safety meetings with employees to dialogue on risks and hazards detrimental to their lives. Worker safety and danger identification can be recognized by managers visiting locations regularly. Management assists in developing safety plans and ensures that the resources necessary to maintain a safe working environment are accessible. Cooper (2006) defines management commitment to safety as employers' and workers' involvement and engagement in activities to attain safety goals.

**Job safety**

In recent years, there has been a growing agreement in the literature on the need to address significant workplace consequences on worker safety and well-being (Karanika, Murray & Weyman, 2013). It must be
noted that current jobs contain many physical hazards to employees’ emotional and psychological well-being (Andel et al., 2015). Job safety is the level of protection embedded in the job assigned to employees that eliminate risks (Gyekye, 2006). Employers that provide unsafe work contribute to accidents and ill-health effects to both individuals and organizations as a whole. Factors contributing to safety at work are safe acts on individuals and conditions prevalent to the job being done. Workers' injuries and illness can cause enormous interferences and cost to employers, emotional trauma to the workers themselves and their families. These can impair workplace morale, reduce productivity, increase the rate of quitting, and a stained reputation. Therefore, it is imperative for employers to secure the work and ensure employees are protected while performing duties. Hence, employers' obligation is to offer appropriate exercise in the form of training to employees, offer safe working conditions, and reduce to a minimum any hazards connected with jobs that are hazardous to employees' health and safety. Therefore, job safety is breaking down the task into various components to identify risks in each step and implement measures to eliminate those risks that can cause harm to employees. Thus, informing and training employees on the risk associated with their jobs. This requires providing a safe method of working for all jobs, which can threaten the safety of employees by taking into account the people who will do the job, the equipment to be used, the material, and the environment within which the job will be carried out.

**Safety Programs**

Implementing a workplace safety and health policy is a critical step in safeguarding an organization's most precious asset, workers. A safety and health program is a management strategy used to decrease the risk of occupational injury and disease (LaTourrette & Mendeloff, 2008). Employers, in other words, take steps to prevent injury and sickness in the workplace. Effective programs include establishing provisions for the systematic identification, assessment, and avoidance or control of general workplace exposures, specific occupational hazards, and potential hazards that may emanate in foreseeable conditions (Lewis, 2016). Consequently, good training driven by safety programs aids employees in developing a sense of belonging and, as a result, increases their responsibility for workplace safety. Employee knowledge of workplace safety and health develops as a result of safety awareness created through safety programs.

**Employee Commitment**

Commitment assesses the willingness to dedicate oneself to the interests of the objectives of an organization and the organization itself. In general, the effectiveness of an organization is considered to be measured by organizational commitment. Since employees who are committed are usually high-performers that significantly contribute to the productivity of an organization. (Yu et al., 2017; Oshagbemi, 1997; Yousef, 2000). As a result, commitment can explain the extent to which a worker recognizes and freely adopts the organization's culture and the extent to which an employee contributes significantly to the attainment of organizational goals. Thus, psychological identification of employees to the beliefs and values and their acceptance to remain a member and involve themselves in the achievement of organizational goals. According to Rowden (2000), commitment has been linked to improved emotions of belonging, efficacy, security, career progression, pay, and intrinsic benefits for both employees and employers. Employee commitment may enhance employee tenure, minimize turnover, cut training expenses and increase work satisfaction while fulfilling corporate goals such as good quality (Mowday et al., 2013). High tenure is accorded to employees committed to their organizations than less committed ones (Mathieu & Zajac, 1990). Further research has linked organizational commitment to low absenteeism rates, improved employee performance (Staufenbiel & König, 2010; Latorre et al., 2016; Mowday et al., 2013), motivation job satisfaction, and organizational citizenship behaviors (Lok & Crawford, 2001). Employees who are not dedicated to their companies engage in withdrawal behavior, described as a series of activities used to avoid workplace situations that might lead to resignation. The low commitment has been connected to low morale, resignation intention, altruism, and compliance measures (Schappe, 1998; DeCottis & Summers, 1987). Non-committed workers, according to Mowday et al.
(2013), may represent the company negatively to outsiders, limiting the business's capacity to recruit high-quality personnel.

Workplace features influence workplace events, which influence emotions that determine workplace attitudes and behaviors (Good et al., 2015). That is, how people manage professional circumstances is heavily influenced by their emotions. Internal factors such as emotions and reactions to occurrences that occur throughout the workday impact the long-term commitment of workers. Workplace events can trigger emotional emotions, depending on the work environment and the individual's temperament. When emotional reactions are accumulated over time, they are thought to impact how one feels about their profession (Levine, 2010). During the workday, both happy and bad events can affect an employee's emotions and dedication. The actual job duties, management style, coworkers' conduct, safety and health concerns, and workplace demands are all factors that might influence emotions at work in a given work environment. Employee commitment can be influenced by long-term emotional responses to positive and bad work experiences. Management is responsible for keeping the workplace safe and free of health hazards. Senior leaders must inspire and motivate managers at all levels to accomplish safety and health goals. Visible leadership is a key component in displaying managerial commitment. That is, management takes a keen interest in safety concerns. According to O'Conner et al. (2011), there is a link between management safety measures and the occurrence of accidents. As a result, management engagement in workplace safety and health is viewed as critical to employee safety performance. Hence, it is of the essence to assess the role that commitment to safety by management, ensure the performance of the job is safe and safety programs play in employee commitment.

**Development of Hypotheses**

The importance of management safety practices at work cannot be over-emphasized. Lehto and Cook (2012) asserted that management gives full support to health and safety issues at work aid in minimizing workplace accidents and injuries. Berthan (2020) demonstrated in Ethiopia's Iron and Coal industry that management safety practices can indeed minimize injuries and diseases at the workplace. Therefore, it was concluded that actions of these sort make employees have a positive view that the organization cares for them. As such, evidence suggests that proper safety management by the organization influences employees' commitment positively. For instance, a study by Liu et al. (2019) and Kaynak et al. (2016) revealed that management safety practices positively affect employees' job safety because allocating resources to support safety management emanating from top, as such management involvement is paramount. Michael et al. (2005) indicated that management safety practices signal employees of organizational support to protect them. It is thus argued here that since management is the lead of safety policies, provision of resources, and ensure its implementation (Berthan, 2020), these acts could influence employees’ job safety. It is therefore anticipated that:

**H1: Management safety practices will have a positive relationship with employees’ job safety.**

According to Haadir and Panuwatwanich (2011), effective safety programs tend to reduce incidents rate occurring at work drastically as it demands management to implement safe processes and create an environment that is safe for people to work in. Safety programs and policies refer to the management of the workplace, procedures, plants, equipment, and employees to minimize workplace accidents and injuries (Bavafa, Mahdiyar & Marsono, 2018). As such, Rowlinson (2004) identified that safety programs averted inappropriate behavior that could result in an accident, ensure that unethical behavior is identified and reported, and ensure that accidents are recorded and dealt with appropriately, which could considerably minimize job accidents. So Bavafa et al. (2018) indicated in their work that safety programs contain diverse components made up of job hazard analysis, safety record keeping, personal protection equipment, personal attitude and perception, accident investigations, in-house safety rules, safety promotions, safety incentives programs, emergency planning, safety policies, control of subcontractors, safety training and safety committees. They concluded that these elements found in safety programs positively influence job safety and can reduce employees’ involvement in accidents
and injuries. Despite the key function of safety programs on job safety, little work has demonstrated this empirically. It is therefore anticipated that:

**H2: Safety programs will relate positively to job safety.**

It is further discovered that the appropriate safety measures reduce injuries during job performance (Berthan, 2020). As employees do not face injuries in a highly hazardous work environment, they positively perceive the organization (Liu et al., 2019) of having good intentions towards them. Pinion et al. (2017) explain that identifying risks inherent in jobs gives employees job control which is found to predict employees working safely. As such, Kaynak et al. (2016) offered that organizational support provided to protect employees while carrying out their tasks safely goes a long way to influence their perception that their employer cares for them and translates into increasing their commitment. In line with affective event theory, what happens in the work environment affects employees' emotions and could influence employees' attitudes, such as commitment. From the discussion above, it can be hypothesized that:

**H3: Job safety will relate positively to employees' commitment.**

Clarke (2013) found that management safety practices at the workplace predicted the safety compliance of workers. They are suggesting that management providing the resources to safety and living by example send a positive signal to employees and, for that matter, enhance employees' safety behavior. Further, supporting evidence showed that management commitment to safety increases employees' safety citizenship and makes them mindful of employing all the safety procedures and leverage on management care for them to do the right things when performing their job. Wachter and Yorio (2014) indicate that when organizations invest in a safety management system, they enhance injuries and accidents reduction. The argument advanced here is that employees can only identify themselves with and care for organizations operating in highly hazardous environments if management provides the necessary resources that safeguard employees while doing their jobs and practice what they preach on safety. Therefore, it is predicted that:

**H4: Job safety will mediate the relationship between management safety practices and employees' commitment.**

Mehra (2018) believes that a safety program is a key ingredient in ensuring job safety. In his study on safety programs and employees' commitment, his findings showed a positive relationship between safety programs and employees' commitment. He concluded that organizations with effective safety programs lessen accidents and injuries. This suggests that safety programs create favorable working conditions that do away with the fear of operating in highly hazardous environments. Suárez-Albanché et al. (2021) also found safety programs to ensure employee job safety. They concluded that safe working conditions created by the safety programs positively influence employees' commitment. Consistent with affective event theory, such favorable working conditions at work will influence attitudes such as identification with the organization and obligation to reciprocate such gestures with staying with the organization. It is therefore predicted that:

**H5: Job safety will mediate safety programs and employees' commitment.**

Most studies on work safety and employee commitment assessed safety as one composite variable (e.g., Kaynak et al., 2016; Suárez-Albanché et al., 2021). On the other hand, this work took awareness of the relevance of three main elements of safety systems (management safety practices, safety programs, and job safety). It assessed their respective influence on employees' commitment. This work, therefore, contributes to the literature on safety and employees' commitment by demonstrating management commitment to safety and safety programs empirically ensure the achievement of job safety and influence employees' commitment to the organization whose work environment is hazardous.
Methodology

Research Design

A descriptive research design was adopted using a cross-sectional survey. As such, a questionnaire was the main data collection tool used. Hence, the data solicited in this research was employed to describe the population at the time it was collected. The study employed mainly a quantitative approach in dealing with the research objectives.

Population and Sample Size

The cluster sampling technique was adopted to put the mining companies in Ghana on a large and small scale using the list provided by the Ghana minerals commission in charge of mining operations. In addition, three large gold mining firms were chosen using the purposive selection approach based on their longevity and gold production. Finally, the convenience sampling approach was employed to pick employees from departments based on their availability while gathering the data in a total population of six thousand employees. Four hundred employees were selected to participate in this investigation. The sample was obtained utilizing a table for ascertaining sample by Kregcie and Morgan (1970).

Hayes et al. (1998) created an instrument used to assess workplace safety, safety programs, and management safety practices. Employee views of workplace occupational health and safety management are considered using this tool. Employee view on commitment was ascertained through an instrument developed by Mowday et al. (1979) on a measure of 1 to 7. The items on the scale are added together and divided by 9 to provide an overall measure of an individual's commitment. The scale is designed to evaluate three aspects: 1) a firm conviction of the organization’s aims and values, 2) loyalty to the firm, and 3) a wish to stay as a member. Some examples of OCQ questions are: “I am pleased I selected this company over others” and “My values align with that of the organization.”

Data Analysis

The surveys were sorted in the order that would allow for the most efficient coding and interpretation. The obtained data were analyzed using the Smart PLS program. The research aims to establish the relationships and the impact that exists among the variable under consideration.”
Results of the Study

Convergent Validity

The standardized factor loadings are examined to determine individual item dependability. The results presented in Table 1 indicated that items used to measure the various constructs have factor loadings greater than 0.55, meeting the threshold offered through Fornell and Larcker’s (1981) works. Average Variance Extracted (AVE), Cronbach alpha and Composite reliability (CR) were utilized to evaluate concurrent validation of the items measuring variables. The findings presented in table 1, the Cronbach Alpha for the items is above 0.70. This shows the constructs have internal consistency and adhere to Waldeck's accepted threshold of 0.60 (2014). The standard set for composite reliability is 0.7, which met the threshold set by Nunnally (1978), as evidenced in table one. Convergent validity is proven for all the constructs of the study, and they all exceeded the benchmark.

Table 1: Factor Loadings, Cronbach’s Alpha Values, Composite Reliabilities, and Average Variance Extracted.

| Study Variables          | Indicators | Factor Loadings | CA   | rho_A | CR   | AVE   |
|--------------------------|------------|-----------------|------|-------|------|-------|
| Employee Commitment      | EC1        | 0.672           | 0.336| 0.313 | 0.197|       |
|                          | EC2        | 0.752           | 0.393| 0.464 | 0.397|       |
|                          | EC3        | 0.730           | 0.294| 0.309 | 0.219| 0.809 |
|                          | EC4        | 0.780           | 0.354| 0.436 | 0.259|       |
|                          | EC5        | 0.612           | 0.183| 0.314 | 0.143|       |
|                          | EC6        | 0.729           | 0.376| 0.467 | 0.372|       |
| Job Safety               | JS1        | 0.366           | 0.834| 0.566 | 0.515|       |
|                          | JS2        | 0.270           | 0.733| 0.458 | 0.345| 0.817 |
|                          | JS3        | 0.447           | 0.803| 0.559 | 0.451|       |
|                          | JS4        | 0.385           | 0.839| 0.490 | 0.419|       |
|                          | MSP1       | 0.408           | 0.482| 0.738 | 0.597|       |
|                          | MSP2       | 0.465           | 0.540| 0.734 | 0.391|       |
| Management Safety        | MSP3       | 0.402           | 0.482| 0.726 | 0.525| 0.852 |
| Practices                | MSP4       | 0.412           | 0.442| 0.748 | 0.432| 0.854 |
|                          | MSP5       | 0.433           | 0.524| 0.840 | 0.568| 0.891 |
|                          | MSP6       | 0.379           | 0.476| 0.765 | 0.541|       |
| Safety Programs          | SP1        | 0.435           | 0.548| 0.624 | 0.888|       |
|                          | SP2        | 0.275           | 0.380| 0.555 | 0.847| 0.836 |
|                          | SP3        | 0.265           | 0.455| 0.546 | 0.861|       |

CA = Cronbach's Alpha, CR = Composite Reliability, AVE = Average Variance Extracted

Discriminant Validity

The degree to which items discriminate between different conceptions is referred to as discriminant validity. An AVE squared should be bigger than the association of two latent variables, according to the idea of discriminant validity (Fornell & Larcker 1981). Table 2 demonstrates that the AVE's square root is larger than its correlation constant with other components. Thus, discriminant validity is demonstrated, indicating that all latent variables are distinct. Additionally, the HTMT values in Table 3 are below the threshold of .85 as
prescribed by Clark and Watson (1995) and Kline (2011). This suggests that discriminant validity exists among the study variables.

Table 2: Fornell–Larcker Criterion of Discriminant Validity.

|                              | Employee Commitment | Job Safety | Management Safety Practices | Safety Program |
|------------------------------|----------------------|------------|-----------------------------|----------------|
| Employee Commitment         | 0.715                |            |                             |                |
| Job Safety                  | 0.463                | 0.803      |                             |                |
| Management Safety Practices | 0.551                | 0.649      | 0.759                       |                |
| Safety Program              | 0.389                | 0.544      | 0.669                       | 0.865          |

Table 3: Heterotrait-Monotrait Ratio (HTMT)

|                              | Employee Commitment | Job Safety | Management Safety Practices |
|------------------------------|----------------------|------------|-----------------------------|
| Employee Commitment         |                      |            |                             |
| Job Safety                  |                      |            | 0.547                       |
| Management Safety Practices |                      | 0.644      | 0.770                       |
| Safety Program              |                      | 0.432      | 0.636                       | 0.788          |

Figure 2: Structural Path Model
Path Coefficients and Predictive Ability

The path coefficients, significance level, and R² values of the different constructions are shown in Table 4. The analysis findings showed that all the paths are significant except the direct path between Safety programs and employee commitment. The paths listed in the parenthesis, thus are significant at the p < 0.001 level (Management Safety Practices → Employee’s Commitment, β = 0.431; Management Safety Practices → Job Safety, β = 0.516), p < 0.01 level (Job Safety → Employee Commitment, β = 0.183), and p < 0.05 level (Safety Programs → Job Safety, β = 0.199). However, one insignificant path was found (Safety Programs → Employee Commitment β = 0.001, p>0.05). R² values of the endogenous constructs are 0.443 (Job safety) and 0.323 (Employee Commitment). This means that management safety practices and safety programs organized by the institutions explain 44.3% of the variance in job safety. The combined effects of management commitment to safety, safety programs, and job safety also explained 32.3% of the variance in employee commitment. In summary, it could therefore be said that the current study confirms the predicted model.

Table 4: Path Coefficients along with their Bootstrap Values and ‘T’ Values Results of hypothesis testing via bootstrapping

| Direct Paths | Original Sample (O) | Sample Mean (M) | Standard Deviation (STDEV) | T Statistics (|O/STDEV|) | P Values |
|--------------|---------------------|----------------|---------------------------|-------------------------|----------|
| JS → EC     | 0.183               | 0.180          | 0.061                     | 2.992                   | 0.003    |
| MSP → EC    | 0.431               | 0.434          | 0.069                     | 6.210                   | 0.000    |
| MSP → JS    | 0.516               | 0.514          | 0.068                     | 7.548                   | 0.000    |
| SP → EC     | 0.001               | 0.005          | 0.059                     | 0.020                   | 0.984    |
| SP → JS     | 0.199               | 0.203          | 0.079                     | 2.505                   | 0.013    |

Mediation analysis

Table 5 shows the indirect impact coefficients, confidence ranges, and p-values for the mediating effects of job safety. As a mediator, the results indicated a moderate positive indirect link between management safety practices and employee commitment to job safety (MSP→JS→EC, β = 0.094, p<0.050). This backs with H4, which claims that job safety is a mediator between management safety practices and employee commitment. On the other hand, safety programs were discovered to have a considerable beneficial indirect influence on employee commitment through job safety (SP → JS → EC, β = 0.036, p<0.050). As a result, as mentioned in H5, job safety mediates the influence of safety programs on employee commitment.

Table 5: Mediation Analysis

| Indirect Path | “Original Sample (O)” | “Sample Mean (M)” | “Standard Deviation (STDEV)” | “T Statistics (|O/STDEV|)” | “P Values” |
|---------------|-----------------------|-------------------|----------------------------|--------------------------|------------|
| MSP→JS→EC    | 0.094                 | 0.094             | 0.038                      | 2.493                    | 0.013      |
| SP → JS → EC | 0.036                 | 0.036             | 0.018                      | 2.018                    | 0.044      |

Discussion

As part of any safety and health management system, management must be involved in the process to be successful. Accordingly, the work was undertaken to ascertain the influence of management safety policies in boosting employee commitment, particularly in high-risk and accident-prone workplaces. Thus, the goal of this study was to find a link between management safety practices, safety programs, and commitment with job safety acting as the intervening variable.
To begin, the study predicted a strong association between management safety practices and job safety. This hypothesis was supported. This conforms to prior evidences (e.g., Pandit et al., 2019; Hofmann et al., 2017). Employers design the workplace and it is their responsibility to keep the workplace safe from immediate and gradual detrimental harms emanating from the work environment. As management provides resources on health and safety and they live by example, employees will ensure they work safely. Additionally, employers implement health and safety activities such as risk assessment which is the process of detecting dangers, evaluating them, and determining their impact on the personnel who may be put in danger. This result also conforms to the evidence obtained by Aidoo and Eshun's (2012) research on records of injuries in mining industry of Ghana. Their research revealed that vehicular accidents, electrocution and defective machinery were the major physical dangers of harms to employees’ heads, legs and hands. This means employers who think about the well-being of their employees ensures the jobs employees do are safe.

Again, the study predicted that safety programs will have a significant positive correlation with job safety. This expectation was also met, which means that implementing safety programs could ensure job safety. In a sense that safety program such as hazard identification helps to find any form of hazards that pose threat to employees in the work environment and task performed. Further, it was anticipated that job safety would have a substantial positive connection with employee commitment, and this was confirmed. This conclusion supports Sinclair et al. (2005)'s argument that businesses that fail to address bad working circumstances, such as safety and health concerns, will have an impact on employees' loyalty to the company. Workers will assume that remaining with their organization is cheaper than leaving. That is safety built-in employee task performance could affect employees’ commitment. A feeling of unsafe at the workplace detaches employees from what they do. It is of essence that performing the various task analysis by breaking tasks into components to identify the various hazards at every step of the task performance and building control measures in between ensuring employees safety. According to affective event theory, what happens at the workplace turn to impact on employees’ emotions and type of commitment employee will have for their employers (Weiss & Cropanzano, 1996).

The anticipation that job safety would have a positive relationship with employee commitment was backed up by evidence. This is consistent with previous findings that job safety has positive effect on employee commitment (Tsao et al., 2017; Pinion et al., 2017). Job Safety programs such as inspections, surveillances, incident reporting, and hazards identification help to keep the job and working person safe. Management involvement and participation with employees inform the type of safety and health culture employees will embrace at the workplace.

Finally, job safety mediated both the association between management safety practices, safety programs, and employee commitment, affirming H4 and H5 of this study. The results confirmed the anticipated connections. This implies that employee’s perception of management activities pertaining to health and safety is of essence to employees and influences their safety behavior. Providing resources and actively participating in safety and health programs shows management's commitment to employees and the fact that management wants its employees to come to work and leave in the same condition as they came. For instance, management developing policy on health and safety and declaring their intent of how they intended to support health and safety resonate a feeling of trust in employees that they can put their lives in the hands of their employer and believing to go home safe without thinking twice when working. Management behaving safely, participating in a safety meeting, safety tours, and safety audits reaffirm the assurance ignited in employees from the safety policy causing employees to have a feeling of affection and obligation towards their employers. This is in accordance with Cooper (1995) and Stackhouse and Turner (2019) who discovered that if employees believe management underestimates the dangers of a job, their dedication and loyalty to that business would be eroded employees will not be mindful of job safety.
Conclusion

In conclusion, the connection between management safety practices, safety programs, and commitment was mediated by job safety. The study’s assumptions were confirmed, indicating that management safety practices and programs are critical for maximizing employee loyalty to their business. The evidence provided in the study conforms to research conducted by Siu (2002), who discovered a favorable link between employee dedication and physical well-being. This means that to keep devoted employees, management must show concern for their well-being by ensuring safe jobs for those working for them. Because dedicated workers stay with an organization, consistently attend work, work a full day or more, preserve corporate assets, believe in the company's goals, and positively contribute to it. Managing health and safety, especially in a high-risk profession, boosts employee morale by reassuring them that their employer cares about their safety and well-being. There is less absenteeism, reduced staff turnover, and more engaged personnel with good morale, which increases quality and productivity. Employers who prioritize safety and health are more appealing to both employees and consumers. Based on their research, Cristea and Leonardi (2019) think dedicated employees work hard to better themselves, make personal sacrifices for the employer’s success, promote their firm as a good place to work, and believe their workplace is one of the finest. Employee engagement may be built via management commitment to workplace health and safety, which is particularly essential in the high-risk workplace. Theoretically, the results of this study support the affective event hypothesis, which states that both good and negative events can impact an employee’s emotions and commitment. Emotions are affected by various factors, including job duties, management style, coworker actions, safety and concerns, and workplace demands. Workplace positive and negative events elicit long-term emotional reactions that might affect commitment (Weiss & Cropanzano, 1996).

Implications and Recommendations

The present study builds on prior findings in the management safety practices, safety programs, and employee commitment literature and highlights an important link between these two streams. However, the most significant contribution of this study rests on drawing together these streams of literature to validate that investment in the health of the workforce may have a far-reaching impact on the commitment of the employees. Most businesses promote employee engagement, which has been linked to beneficial outcomes and increased job safety. The findings of this study recommend that organizations achieve favorable outcomes through increased attention to the well-being and health of the employees. Generally, the study results reveal that when employers invest in safety and health policies, it tends to have profound implications on commitment. Employees tend to reciprocate this perceived concern for management safety practices and safety programs for their health and well-being with more significant commitment at the workplace. Given that management’s concern for safety practices and programs might influence employee commitment, this study attempts to reinforce the necessity for investment in management dedication to safety issues and adopt and implement best procedures on workplace safety policies and enforcing them.

It is therefore recommended that organizations operating within the highly hazardous environment must adopt industry-wide standard safety practices to ensure that their workplace is safe for employees to develop the needed sense of attachment for organizational growth. Further, issues concerning health and safety at the workplace must be seen as paramount. Management must invest in employees’ safety by implementing policies and providing resources that reduce accidents, injuries, and ill-health. Safety programs such as risk assessment, safety tours, safety surveys, emergency procedures, safety audits must also be implemented. Lastly, it is recommended that management in highly hazardous institutions must demonstrate a positive and supportive safety attitude toward their employees. Thus devoting time and resources to safety and health issues at the workplace.”
Limitation and Future Direction

This study focused on three mining organizations to solicit quantitative data on management safety practices, safety programs, job safety, and employee commitment. As a result, single-source data was used for which data was collected from only employees. Future studies can do multilevel data collection from both employees and management to compare responses. Further, about research design, this research utilized a descriptive cross-sectional survey approach, indicating that data was collected at one point in time. Future studies can do longitudinal studies to assess how management dedication to safety policies and safety programs can influence safe job and employee commitment over time.

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References

Aidoo, S. J., & Eshun, P. A. (2012). Time Series Model of Occupational Injuries Analysis in Ghanaian Mines - A Case Study. Research Journal of Environmental and Earth Sciences, 4(2), 162–165.

Al Haadir, S., & Panuwatwanich, K. (2011). Critical success factors for safety program implementation among construction companies in Saudi Arabia. Procedia Engineering, 14, 148–155.

Alli, B. O. (2008). Fundamental principles of occupational health and safety Second edition. Geneva, International Labour Organization, 15, 2008.

Amponsah-Tawiah, K., & Darcey-Baah, K. (2011). Occupational health and safety: key issues and concerns in Ghana. International Journal of Business and Social Science, 2(14), 120–126.

Andel, S. A., Hutchinson, D. M., & Spector, P. E. (2015). Safety at Work: Individual and Organizational Factors in Workplace Accidents and Mistreatment. Research in Personnel and Human Resources Management.

Armstrong, M. (2009). Armstrong’s Handbook of Human resource management (11th ed.). London, United Kingdom: Kogan Page.

Ayim Gyekye, S. (2005). Workers’ Perceptions of Workplace Safety and Job Satisfaction. International Journal of Occupational Safety and Ergonomics, 11(3), 291–302. https://doi.org/10.1080/10803548.2005.11076650

Bavafa, A., Mahdiyar, A., & Marsono, A. K. (2018). Identifying and assessing the critical factors for effective implementation of safety programs in construction projects. Safety Science, 106, 47–56. https://doi.org/10.1016/j.ssci.2018.02.025

Berhan, E. (2020). Management commitment and its impact on occupational health and safety improvement: a case of iron, steel and metal manufacturing industries. International Journal of Workplace Health Management, 13(4), 427–444. https://doi.org/10.1177/2041386615626243

Beus, J. M., McCord, M. A., & Zohar, D. (2016). Workplace safety. Organizational Psychology Review, 6(4), 352–381. https://doi.org/10.1177/2041386615626243

Brewer, C. S., Kovner, C. T., Greene, W., Tukov-Shuer, M., & Djukic, M. (2011). Predictors of actual turnover in a national sample of newly licensed registered nurses employed in hospitals. Journal of Advanced Nursing, 68(3), 521–538. https://doi.org/10.1111/j.1365-2648.2011.05753.x

Brauer, R. L. (2016). Safety and health for engineers. John Wiley & Sons.

Clark, L. A., & Watson, D. (1995). Constructing validity: Basic issues in objective scale development. Psychological Assessment, 7(3), 309–319. https://doi.org/10.1037/1040-3590.7.3.309

Cooper D., (1995). Measurement of safety climate: a component analysis. Institute of occupational health and safety meeting (IOSH).
Clarke, S. (2012). Safety leadership: A meta-analytic review of transformational and transactional leadership styles as antecedents of safety behaviours. Journal of Occupational and Organizational Psychology, 86(1), 22–49. https://doi.org/10.1111/j.2044-8325.2012.02064.x

Cooper, M. D. (2006). Exploratory Analysis of the Effects of Managerial Support and Feedback Consequences on Behavioral Safety Maintenance. Journal of Organizational Behavior Management, 26(3), 1–41. https://doi.org/10.1300/j075v26n03_01

Cristea, I. C., & Leonardi, P. M. (2019). Get Noticed and Die Trying: Signals, Sacrifice, and the Production of Face Time in Distributed Work. Organization Science, 30(3), 552–572. https://doi.org/10.1287/orsc.2018.1265

Danna, K., & Griffin, R. W. (1999). Health and Well-Being in the Workplace: A Review and Synthesis of the Literature. Journal of Management, 25(3), 357–384. https://doi.org/10.1177/014920639902500313

DeCotiis, T. A., & Summers, T. P. (1987). A Path Analysis of a Model of the Antecedents and Consequences of Organizational Commitment. Human Relations, 40(7), 445–470. https://doi.org/10.1177/001872678704000704

Fernández-Muñiz, B., Montes-Peón, J. M., & Vázquez-Ordás, C. J. (2017). The role of safety leadership and working conditions in safety performance in process industries. Journal of Loss Prevention in the Process Industries, 50, 403–415. https://doi.org/10.1016/j.jlp.2017.11.001

Fornell, C., & Larcker, D. F. (1981). Structural Equation Models with Unobservable Variables and Measurement Error: Algebra and Statistics. Journal of Marketing Research, 18(3), 382–388. https://doi.org/10.1177/002224378101800313

Geurts, S. A., Schaufeli, W. B., & Rutte, C. G. (1999). Absenteeism, turnover intention and inequity in the employment relationship. Work & Stress, 13(3), 253–267. https://doi.org/10.1080/026783799296057

Good, D. J., Lyddy, C. J., Glomb, T. M., Bono, J. E., Brown, K. W., Duffy, M. K., . . . Lazar, S. W. (2015). Contemplating Mindfulness at Work. Journal of Management, 42(1), 114–142. https://doi.org/10.1177/0149206315617003

Gyekye, S. A. (2006). Workers’ Perceptions of Workplace Safety: An African Perspective. International Journal of Occupational Safety and Ergonomics, 12(1), 31–42. https://doi.org/10.1080/10803548.2006.11076667

Hayes, B. E., Perander, J., Smecko, T., & Trask, J. (1998). Measuring Perceptions of Workplace Safety. Journal of Safety Research, 29(3), 145–161. https://doi.org/10.1016/s0022-4375(98)00011-5

Helliwell, J. F., & Putnam, R. D. (2004). The social context of well-being. Philosophical Transactions of the Royal Society of London. Series B: Biological Sciences, 359(1449), 1435–1446. https://doi.org/10.1098/rstb.2004.1522

Hofmann, D. A., Burke, M. J., & Zohar, D. (2017). 100 years of occupational safety research: From basic protections and work analysis to a multilevel view of workplace safety and risk. Journal of Applied Psychology, 102(3), 375–388. https://doi.org/10.1037/apl0000114

Jain, A., Leka, S., & Zwetsloot, G. I. (2018). The Economic, Business and Value Case for Health, Safety and Well-Being. In Managing Health. Safety and Well-Being, 67–98. https://doi.org/10.1007/978-94-024-1261-1_3

Karanika-Murray, M., & Weyman, A. K. (2013). Optimising workplace interventions for health and well-being. International Journal of Workplace Health Management, 6(2), 104–117. https://doi.org/10.1108/ijwhm-11-2011-0024

Kaynak, R., Tuygun Toklu, A., Elci, M., & Tamer Toklu, I. (2016). Effects of occupational health and safety practices on organizational commitment, work alienation, and job performance: using the PLS-SEM approach. International Journal of Business and Management, 11(5), 146–166. https://doi.org/10.5539/ijbm.v11n5p146

Krejcie, R. V., & Morgan, D. W. (1970). Determining Sample Size for Research Activities. Educational and Psychological Measurement, 30(3), 607–610. https://doi.org/10.1177/001316447003000308
Latorre, F., Guest, D., Ramos, J., & Gracia, F. J. (2016). High commitment HR practices, the employment relationship and job performance: A test of a mediation model. European Management Journal, 34(4), 328–337. https://doi.org/10.1016/j.emj.2016.05.005

LaTourrette, T., & Mendeloff, J. M. (2008). Mandatory workplace safety and health programs: Implementation, effectiveness, and benefit-cost trade-offs (Vol. 604). Rand Corporation.

Leigh, J., Cone, J. E., & Harrison, R. (2001). Costs of Occupational Injuries and Illnesses in California. Preventive Medicine, 32(5), 393–406. https://doi.org/10.1006/pmed.2001.0841

Levine, E. L. (2010). Emotion and power (as social influence): Their impact on organizational citizenship and counterproductive individual and organizational behavior. Human Resource Management Review, 20(1), 4–17. https://doi.org/10.1016/j.hrmr.2009.03.011

Lewis, R. K. (2016). Radon in the Workplace. Health Physics, 111(4), 374–380. https://doi.org/10.1097/0.0000000000000553

Lim, S., Cortina, L. M., & Magley, V. J. (2008). Personal and workgroup incivility: Impact on work and health outcomes. Journal of Applied Psychology, 93(1), 95–107. https://doi.org/10.1037/0021-9010.93.1.95

Lin, J., & Mills, A. (2001). Measuring the occupational health and safety performance of construction companies in Australia. Facilities, 19(3/4), 131–139. https://doi.org/10.1108/02632770110381676

Liu, S., Gyabeng, E., Joshua Atteh Sewu, G., Nkrumah, N. K., & Darney, B. (2019). Occupational Health and Safety and Turnover Intention in the Ghanaian Power Industry: The Mediating Effect of Organizational Commitment. BioMed Research International, 2019, 1–10. https://doi.org/10.1155/2019/3273045

Lok, P., & Crawford, J. (2001). Antecedents of organizational commitment and the mediating role of job satisfaction. Journal of Managerial Psychology, 16(8), 594–613. https://doi.org/10.1108/eum0000000006302

Mathieu, J. E., & Zajac, D. M. (1990). A review and meta-analysis of the antecedents, correlates, and consequences of organizational commitment. Psychological Bulletin, 108(2), 171–194. https://doi.org/10.1037/0033-2909.108.2.171

Mazlina Zaira, M., & Hadikusumo, B. H. (2017). Structural equation model of integrated safety intervention practices affecting the safety behaviour of workers in the construction industry. Safety Science, 98, 124–135. https://doi.org/10.1016/j.ssci.2017.06.007

McNeese-Smith, D. K. (2001). A Nursing Shortage: Building Organizational Commitment Among Nurses. Journal of Healthcare Management, 46(3), 173–187. https://doi.org/10.1097/00115514-200105000-00008

Mehra, L. (2018). Effect of Green Human Capital on Employees’ Intention to Quit: The Mediating Role of Employees’ Commitment. International Journal of Management Studies, V(4(4)), 46. https://doi.org/10.18843/ijms/v5i4(4)/06

Michael, J. H., Evans, D. D., Jansen, K. J., & Haight, J. M. (2005). Management commitment to safety as organizational support: relationships with non-safety outcomes in wood manufacturing employees. Journal of Safety Research, 36(2), 171–179. https://doi.org/10.1016/j.jsr.2005.03.002.

Miller, R. L., & Brewer, J. D. (Eds.). (2003). The AZ of social research: a dictionary of key social science research concepts. Sage.

Mowday, R. T., Porter, L. W., & Steers, R. M. (2013). Employee—organization linkages: The psychology of commitment, absenteeism, and turnover. Academic press.

Mowday, R. T., Steers, R. M., & Porter, L. W. (1979). The measurement of organizational commitment. Journal of Vocational Behavior, 14(2), 224–247. https://doi.org/10.1016/0001-8791(79)90072-1

Nunnally, J. C. (1978). An overview of psychological measurement. Clinical diagnosis of mental disorders, 97-146.

O’Connor, P., O’Dea, A., Kennedy, Q., & Buttrey, S. E. (2011). Measuring safety climate in aviation: A review and recommendations for the future. Safety Science, 49(2), 128–138. https://doi.org/10.1016/j.ssci.2010.10.001
Osei Boakye, A., Dei Mensah, R., Bartrop-Sackey, M., & Muah, P. (2021). Juggling between work, studies and motherhood: The role of social support systems for the attainment of work–life balance. SA Journal of Human Resource Management, 19. Published. https://doi.org/10.4102/sajhrm.v19i0.1546

Oshagbemi, T. (1997). Job satisfaction and dissatisfaction in higher education. Education + Training, 39(9), 354–359. https://doi.org/10.1108/00400919710192395

Pandit, B., Albert, A., Patil, Y., & Al-Bayati, A. J. (2019). Impact of safety climate on hazard recognition and safety risk perception. Safety Science, 113, 44–53. https://doi.org/10.1016/j.ssci.2018.11.020

Pinion, C., Brewer, S., Douphrate, D., Whitehead, L., DelliFraine, J., Taylor, W. C., & Klyza, J. (2017). The impact of job control on employee perception of management commitment to safety. Safety Science, 93, 70–75. https://doi.org/10.1016/j.ssci.2016.11.015

Rowden, R. W. (2000). The relationship between charismatic leadership behaviors and organizational commitment. Leadership & Organization Development Journal, 21(1), 30–35. https://doi.org/10.1108/01437730010310712

Schappe, S. P. (1998). The Influence of Job Satisfaction, Organizational Commitment, and Fairness Perceptions on Organizational Citizenship Behavior. The Journal of Psychology, 132(3), 277–290. https://doi.org/10.1080/00223989809599167

Sinclair, R. R., Tucker, J. S., Cullen, J. C., & Wright, C. (2005). Performance differences among four organizational commitment profiles. Journal of Applied Psychology, 90(6), 1280–1287. https://doi.org/10.1037/0021-9010.90.6.1280

Staufenbiel, T., & König, C. J. (2010). A model for the effects of job insecurity on performance, turnover intention, and absenteeism. Journal of Occupational and Organizational Psychology, 83(1), 101–117. https://doi.org/10.1348/096317908x401912

Stackhouse, M., & Turner, N. (2019). How do organizational practices relate to perceived system safety effectiveness? Perceptions of safety climate and co-worker commitment to safety as workplace safety signals. Journal of Safety Research, 70, 59–69. https://doi.org/10.1016/j.jsr.2019.04.002

Stoddard, G. L., & Evans, R. G. (2017). Producing health, consuming health care. In Why are some people healthy and others not? (pp. 27-64). Routledge.
Weiss, H. M., & Cropanzano, R. (1996). Affective events theory. Research in Organizational Behavior, 1–74.

World Health Organization, W. H. O. (2013, September 20). Healthy Workplace Framework and Model: Background Document and Supporting Literature and Practices. Retrieved 10 August 2021, from https://www.who.int/occupational_health/healthy_workplace_framework.pdf

Yousef, D. A. (2000). Organizational commitment: a mediator of the relationships of leadership behavior with job satisfaction and performance in a non-western country. Journal of Managerial Psychology, 15(1), 6–24. https://doi.org/10.1108/02683940010305270

Yu, Q., Yen, D. A., Barnes, B. R., & Huang, Y. A. (2017). Enhancing firm performance through internal market orientation and employee organizational commitment. The International Journal of Human Resource Management, 30(6), 964–987. https://doi.org/10.1080/09585192.2017.1380059

Zacharatos, A., Barling, J., & Iverson, R. D. (2005). High-Performance Work Systems and Occupational Safety. Journal of Applied Psychology, 90(1), 77–93. https://doi.org/10.1037/0021-9010.90.1.77