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The Determinants of Occupational Safety and Health (OSH) Practices Compliance among Employees in Kuching

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Abstract

The working environment has changed dramatically over the past few decades due to globalization. Globalization brought in new technology and saw the rise of multiple industries within the country. This affects the structure of the workplace and Occupational Safety and Health (OSH). This paper takes on the research gap to expand the knowledge and insight on the determinants of OSH practices compliance among employees in Sarawak. It is vital to uncover the determinants of Occupational Safety and Health (OSH) practices compliance among employees due to the fact that health and safety sustainability is fundamental to the performance and growth of organizations in any economic sector. The main purpose of this study is to identify the determinants of Occupational Safety and Health (OSH) practice compliance among employees in Kuching. The research employed quantitative research methods with questionnaires as the tool to collect data. The research location is none other than the capital city of Sarawak, Kuching with a sample size of 384. The data analysis was done via Statistical Package for Social Sciences, SPSS software version 25. Based on data analysis, it is found that the availability of safety rules and procedures, the effectiveness of safety training, and the readiness of Personal Protective Equipment (PPE) have significant relationships towards OSH practices compliance among employees in Kuching. Contrary, management commitment toward safety is found to have a not significant relationship. The study findings offer vital information for top management decision-making to increase OSH practice compliance in their organization. Besides, this study contributes to the expanded literature in the field of OSH practice compliance especially in the Sarawak local context.

Keyword: Management Commitment, Occupational Safety and Health (OSH), Safety Rules and Procedures, Effectiveness of safety training, Readiness of Personal Protective Equipment (PPE).

Introduction

In Malaysia, the Occupational Safety and Health Act (OSHA) 1994 provides a legal framework that places a huge responsibility on employers (Department of Occupational Safety and Health, n.d.). OSHA outlines the requirements for minimizing the consequences of workplace accidents and serious injuries due to dealing with toxic, flammable, chemical, and so on at the workplace. Through a self-regulating scheme, OSHA aims to establish effective safety and health organization and performance. There are several OSH agencies in Malaysia, such as NIOS, NCOSH, DOSH, and SOCSO that are responsible for regulating and enforcing the

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safety and health of employees in the workplace (Feriyanto, Malik, & Zakaria, 2020). The concept of self-regulation encourages the cooperation and commitment between employees and employers in an effort to make the workplace a safe place to work. OSH involves the safety of employees, cost, and productivity of the business. Our country Malaysia adopted a self-regulation approach to regulating OSH in the workplace (Khoo, Surienty, & Kee 2011). Employer and employees hold most of the responsibilities to ensure the safety of the workplace are up to standard. Workplace accidents and serious injuries happen when there are no proper safety rules and procedures set by the employer or management. Besides, employees' compliance with OSH practices set by the employer also affects their safety in the workplace (Subramanian, Shamsudin, Zin, Ramalu, & Hassan, 2016). Employer provides safety rules and wear the safety rules in the workplace. It is up to employees to comply with the safety rules and wear the safety equipment.

The availability of safety rules and procedures is crucial in determining the safety and health of employees in the workplace. Department of Safety and Health Sarawak reminds employers to appoint safety and health officers to ensure employees' safety and health at the workplace (Petingi, 2022). The availability of OSH practices within an organization is taken for granted by employees. Employees refuse to wear safety equipment because they are not accustomed to it. Without safety rules and procedures, employees do not have a guideline on the safety measures and workplace hazards they face every day. According to Povera (2017), the employer was urged to adopt stricter workplace OSH measures after a fatal site accident at a construction site in Kuching, Sarawak. There are some organizations that do not put an emphasis on the workers' safety and health at the workplace. There are no safety rules and procedures set by the employer and one small mistake by the employer can lead to disastrous injury at the workplace.

The effectiveness of safety training is another important aspect of OSH practices in the workplace. Sarawak Energy Berhad is collaborating with CENTEXS to provide training for the contractors (Syahhira, 2022). Every organization can implement safety training. However, its effectiveness is questionable. All employees must attend safety training and the safety training must meet its objectives. The safety training must cater to and have different approaches to cater to all employees from different educational backgrounds. Workers who work in the same position might have different understanding, especially those with low education backgrounds. Safety training also must take into account foreign employees. They might not understand local languages such as Bahasa Malaysia and English. This is a challenge to provide effective safety training to employees. Public-private collaboration for safety training could prevent accidents in the workplace such as the collapsed girder beam at the Pan Borneo highway in Pujut, Miri (Lai, 2019). Effective safety training will enable employees to avoid and handle workplace hazards with sufficient knowledge.

Management commitments toward safety are the foundation for reducing workplace accidents and serious injuries. According to Ashikin (2022), Sarawak Energy Berhad (SEB) aims to achieve zero incidents in the workplace. Zero incidents in the workplace give a good reputation for the employer to the outside world. Kuching North City Commission (DBKU) aims to continue successive runs of zero workplace accidents in the year 2015 (Veno, 2015). Commitment from management towards its employees' safety at the workplace will benefit both parties. Employees can work worry-free because the working environment is free from hazards. However, there is management that puts less emphasis on the importance of its employees in the workplace. Minimal or no commitment from the management to enforce its employees' safety in the workplace is a recipe for disaster. Three were killed and twenty-nine were injured when City One Mall in Kuching exploded (Kumar, 2018). Such incidents can be

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avoided if the involved contractor puts emphasis on the safety aspects of its workers. The mall management company was charged with failing to provide safety measures during the blast (Edward, 2019). This shows that management must put their commitment to enforcing safety and health at the workplace to avoid unnecessary charges.

Personal Protective Equipment (PPE) is a tool or equipment to be worn by employees at the workplace to minimize exposure to hazards (World Health Organization, n.d.). The limited or absence of PPE in the workplace is a serious issue. According to Nazari (2020), medical staff faced insufficient PPE supply during the pandemic, Covid-19 outbreak. The pandemic which is unprecedented foresees a shortcoming in the supply of PPE for medical staff. PPE helped keep medical staff shielded from infection by Covid-19 (Shepard, 2022). Besides, there is more than one-third of employees who wear PPE in an electronic company in Sama Jaya, Kuching (Sarok & Susil, 2012). Employees in the electronic company are exposed to different workplace hazards such as noise and chemical exposure. However, the number of employees who do not wear PPE is worrying. According to Yussop (2017), there are employers and workers in Sarawak who do not care about the importance of PPE in the workplace especially in high-risk workplaces. Workplace injury is preventable with PPE and employees must wear them.

The study aims to identify the determinants of Occupational Safety and Health (OSH) practice compliance among employees in Kuching. The independent variables of this study are the availability of safety rules and procedures, the effectiveness of safety training, management commitments towards safety, and the Readiness of Personal Protective Equipment (PPE). These independent variables are adopted from various studies (Abdul, Warishah, Rohayu, Mohd, Hairin, & Rasyikin, 2021; Mayanja, Ddamulira, Katamba & Mutekanga, 2022). Based on the proposed research mode, the research questions are as follows: i. "What is the impact of the availability of safety rules and procedures on the OSH practices compliance among employees in Kuching?"; ii. "What is the impact of the effectiveness of safety training on the OSH practices compliance among employees in Kuching?"; iii. "What is the impact of management commitments towards safety on the OSH practices compliance among employees in Kuching?"; and iv. "What is the impact of the readiness of Personal Protective Equipment (PPE) on the OSH practices compliance among employees in Kuching?". There are several studies conducted in the field of OSH practices in Malaysia (Sulastre & Fadilah, 2011; Surienty, 2019; Nadzirah, Iman, Munirah, Firdaus, & Wahida, 2022). However, it is found that the study on determinants of OSH practice compliance among employees in Sarawak context is limited. Hence, this paper takes on the research gap to expand the knowledge and insight on the determinants of OSH practices compliance among employees in Sarawak. According to the Department of Statistics Malaysia (2022), Sarawak recorded 1204 injuries and 35 fatalities at the workplace in 2021. This figure is very concerning despite the effort taken by all parties involved. Accident at the workplace is always a concern that remains unsolved effectively (Syaidan & Ifwat, 2018). Hence, it is vital to uncover the determinants of Occupational Safety and Health (OSH) practices compliance among employees in Kuching due to the fact that health and safety sustainability is fundamental to the performance and growth of organizations in any economic sector.

Literature Review

OSH Practices Compliance

Occupational Safety and Health can be defined as protecting the safety and health of people engaged in work (Khan, Mustaq, & Tabassum, 2014). OSH fosters a safe and healthy work

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environment for employees from all industries. Safety at work is one of the key issues in many organizations from different industries. Accidents and injuries in the workplace can cost the organization financially and disrupt production. According to Jonathan and Mbogo (2016), the concern for the health and safety of employees in the workplace is legitimate for every business. The health and safety of employees should be the main concern for employers because it involves lives, productivity, and cost.

According to Vinodkumar (2010), OSH Practices can be defined as the policies and procedures implemented by any organization to ensure the safety of their employees. Employers or organizations play a vital role in ensuring the well-being of their employees in the workplace. Good OSH practices will reduce occupational accidents among employees (Feriyanto et al., 2020). Employees are the backbone of any organization because, without them, the organization cannot operate. Most workplace accidents were caused by a lack of OSH practices compliance among employees. According to Khine, Wut and Seng (2020), workplaces such as in the construction and manufacturing industries are full of hazards. Good OSH practices can prevent employees from harm and reduce loss of property. Employees need to comply with the OSH practices to ensure their safety and health at the workplace.

Compliance is adhering to a set of standards, practices, rules, or laws (Khoo, Hanipah, & Norida, 2018). Mayanja et al. (2022) defined compliance as the act of conforming to or being in accord with a rule or established guidelines. OSH practices compliance is the most effective in preventing injury and illness of employees in the workplace. According to Champoux and Brun (2016), complying with the OSH practices is beneficial because it can eliminate injury and death in the workplace. Safety equipment is among the effective methods to promote good compliance with OSH practices and this can reduce injury (Ayob, Ibrahim, Mokhtar, Syamsyiah, Din, Zahid, Mustaqqim, & Hazif, 2021). The primary objective of OSH practices is to create a safe and healthy environment for all employees. According to Bulanda (2019), the compliance of both employees and employers with applicable regulations in OSH will heavily contribute to workers' safety in the workplace. Thus, it can be concluded that OSH practices compliance is the act of adhering to the OSH practices that are set by the organization to reduce workplace accidents and to ensure the safety of their employees.

Availability of Safety Rules and Procedures

Safety rules and procedures are the first stepping stone in ensuring a workplace that is safe and healthy for employees. According to Ibrahim, Sarina, Noraini & Zulaiha (2012), policies and procedures are developed at the organizational level to reduce the risk of any injuries in the workplace. Workplace accidents and serious injuries are inevitable and ways to reduce them should be implemented. According to Poursadeghiyan, Ebrahimi, Abbasi, Khandan, Biglari, and Hami (2017), administrative intervention such as the setting of safety rules and procedures in the workplace will benefit the organization. Good safety rules and procedures will greatly reduce accidents and serious injuries in the workplace.

The availability of safety rules and procedures is the first step to ensuring the safety and health of employees in the workplace. The rules and procedures must be available for the employees to follow to ensure safety at the workplace. Ibrahim et al. (2012) found that policies and procedures are significantly related to the safety of employees in the workplace. The availability of policies and procedures will impact OSH compliance because the enforcement of the policies and procedures will ensure that employees wear safety equipment and avoid things that induce hazards. Cristi, Birau, Ejaz, Yazdan, Hassan, and Mitu (2022) found that safety rules and procedures are significantly related to safety compliance among employees in the workplace. Safety at the workplace requires everyone within the organization to adhere to

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the safety guidelines. Employers need to ensure that the safety rules and procedures are updated regularly. On the other hand, employees need to carefully follow the safety rules and procedures set by the company. On top of that, Sulastre & Faridah (2011) also stated that safety guidelines and regulations significantly impact the employees' health and safety at the workplace. Employees are required to follow the guidelines and regulations on health and safety at the workplace. Thus, the below hypothesis was suggested:

H1: Availability of safety rules and procedures has a significant impact on OSH practices compliance among employees in Kuching, Sarawak.

Effectiveness of Safety Training

According to Ibrahim et al. (2012), safety training is vital for employees to attend because it brings awareness to them of the importance of OSH. The effectiveness of the safety training is one form of intervention to improve the safety and health conditions at the workplace. Safety training will educate and encourage compliance among employees in the workplace (Abdul et al., 2021). Employees' understanding of the importance of workplace risks and potential hazards can be obtained through effective training. The knowledge employees obtain from training will ensure safety is implemented at work.

Safety training is a must to get employees accustomed to the safety and health requirements in the workplace. Mostafa & Momen (2014) in their study found that effective training on safety and health is significant to ensure their safety and health for technical programs. Effective training on safety and health will provide employees with the knowledge needed to protect themselves and their working environment. Hassan, Ismail, Makhtar, and Jusoh (2021) in their study found that knowledge to be one of the prominent factors in enforcing OSH. Safety training is one of the ways to deliver the knowledge on OSH to employees. The effectiveness of safety training plays a vital role in influencing the compliance of OSH among employees, especially in high-risk and hazardous workplaces. Moreover, Rondinone, Valenti, Boccuni, Cannone, Dionisi, Cagliardi, Boccuni, and Lavicoli (2021) also found that effective safety training is needed to address OSH issues. Effective safety training among employees is proven to be one of the prominent factors in determining OSH compliance among employees.

Besides, Ricci, Chiesi, Bisio, Panari, and Pelosi (2016) found that the effectiveness of training on worker OSH is significant for interventions on workplace accidents. Effective training is vital in order to ensure employees comply with the safety and health practices in the workplace. Effective training will promote workers' health and overall well-being in the workplace. Therefore, the below hypothesis is proposed:

H2: The effectiveness of safety training has a significant impact on OSH practices compliance among employees in Kuching, Sarawak.

Management Commitments towards Safety

Employer leadership is vital in forming a strong safety culture within an organization (Shin, Kim & Kim, 2021). Management commitments toward safety will create a strong safety culture within the organization. Management should commit to instilling a safety culture within an organization because the safety of their employees is one of their responsibilities. Employees will recognize and appreciate management's commitment to their safety and health in the workplace (McGonagle, Essenmacher, Hamblin, Luborsky, Upfal, & Arnetz, 2016). Management who is committed to providing safe workplaces such as proper office layout and comfort help improve employees' productivity. Management should put high priority on

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employee health and safety in the workplace because it involves lives, productivity, and cost to the organization (Jonathan & Mbogo, 2016). In the long run, management commitment toward safety will change the employees' perception of the organization as a safe workplace to work.

Management is responsible for preventing accidents and serious injuries in the workplace. Management can do so by taking effective safety measures in the workplace. McGonagle et al. (2016) found that there is a link between management commitments and the employees' safety and health among healthcare personnel. Employees are the backbone of any organization for the production and growth of the organization. Besides, Alghaseb and Alshmlani (2022) found that management commitment is significant in determining OSH performance. Management that neglects the safety and health of their employees at the workplace leads to an increase in the number of workplace injuries or even fatalities.

Subramaniam et al. (2016) in their study found that management commitment affects safety compliance among employees in the workplace. Management's commitment to ensuring employees' compliance towards safety and health in the workplace is vital in managing OSH at workplace. Injuries or even fatalities in the workplace will disrupt the organization's productivity. Management to put an emphasis on the workplace OSH practices to ensure that their employees' welfare is well taken care of. Moreover, Balkissoon (2016) found that top management commitment to OSH implementation is vital in Occupational Safety and Health Management System development. Top management within an organization has the ability to influence and create a good safety and health environment in the workplace. Management shall practice leadership through example in safety and health practices compliance. Good practice of OSH compliance by the management path is the way for employees to follow through. Therefore, the author hypothesizes that:

H3: Management commitments towards safety has a significant impact on OSH practices compliance among employees in Kuching, Sarawak.

Readiness of Personal Protective Equipment (PPE)

Personal Protective Equipment (PPE) is equipment worn by employees to reduce exposure to workplace hazards (Hughes, 2009). Workplace hazards are the main causes of serious workplace injuries and illness. According to Cherrie, Semple, and Coggins (2021), PPE covers the body, hands, face, and respiratory system from workplace hazards. The readiness of PPE in the workplace is vital to ensure employees' safety and health at the workplace.

PPE is the equipment worn by employees to reduce the exposure to workplace hazards. Workplace hazards can cause serious injuries or even death to employees. Maharja, Faradisha & Panggeleng et al. (2022) in their study found that the availability of PPE in the workplace has proven to be significant to the safety behavior of employees in the workplace. Kasuma, Ismailly, Ghaffari, Rusuli, and Gapor (2019) found that PPE is the most important factor affecting the safety performance of workers in the workplace. The availability of PPE is vital because it exists as a preventive measure against workplace hazards.

Besides, Sijabat, Sinaga, Pardede, and Hutagalung (2021) in their study found that the availability of PPE during the pandemic is vital for employees' safety. The pandemic, Covid-19 spread worldwide and was first reported in Wuhan, China (Liu, Kuo & Shih, 2020). The availability of PPE for employees in the healthcare industry is vital, especially during the spread of the pandemic. The PPE protects healthcare staff from the spread of the virus (Parente, 2023). PPE is equally important for employees in other industries to protect them from illness and injuries at the workplace.

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On top of that, Exposto, Fransisco, Goncalves, Colo, Barros, Costa, and Fontes (2022) found that PPE utilization among employees is very important for the health and safety of workers at the workplace. PPE helps keep employees safe while performing their tasks daily at the workplace. The unavailability or inadequacy of PPE at the workplace is a sign of the negligence of employer toward their employees' safety at the workplace. Therefore, the author hypothesizes that:

H4: Readiness of Personal Protective Equipment has a significant impact on OSH practices compliance among employees in Kuching, Sarawak.

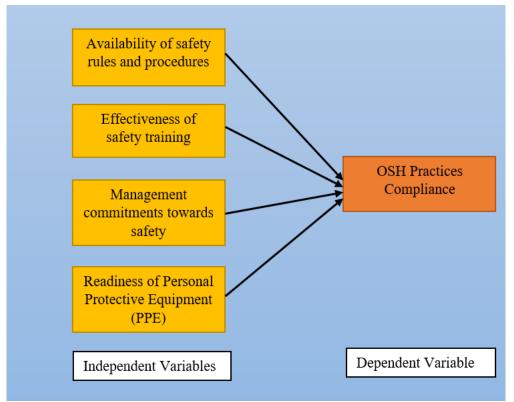


Figure 1: Conceptual Framework Source: Abdul et al. (2021) & Mayanja, et al. (2022)

Methodology

The research location is none other than the capital city of Sarawak, Kuching. Kuching is situated on the banks of the Sarawak River on the island of Borneo. Kuching is the largest city in the entire Borneo and placed fourth for the biggest city in Malaysia (Attractions in Malaysia, n.d.). The population of Kuching was 812,900 in 2020 (Sarawak Government, n.d.). This figure is obtained from the population census that was conducted once every 10 years. So, the latest population figure is in 2020 based on the population census.

The non-probability sampling method is the sampling design of this study. Nonprobability sampling method involves the selection of respondents based on the convenience of collecting data (McCombes, 2019). Convenience sampling which is one type of nonprobability sampling method was used to select the respondents for this study. According to

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Etikan, Musa, & Alkassim (2016), convenience sampling is one type of sampling method where members of the target population meet certain practical criteria set by the researchers. The researcher chose convenience sampling because it can save time and cost to collect data from the sample or respondents of this study. The criteria to be selected as respondents for this study are must be working, staying in Kuching, and knowing what OSH is. People who meet these criteria will be given the questionnaire for the data collection.

The sample size for this study was determined by Raosoft online sample size calculator. This sample size calculation technique was chosen because it is one the easiest methods to calculate the sample size. The researcher needs to enter the population and select the confidence and precision level. The online sample size calculator calculated the sample size automatically. Based on the Raosoft online sample size calculator, the sample size for this study is 384 at 95% confidence level and 5% precision level (Raosoft, n.d.).

According to Bhandari (2021), a questionnaire is a list of items used to gather required data from respondents of the study. The questionnaire is in two main spoken languages in Malaysia which are English and Bahasa Malaysia. The dual language nature of the questionnaire will further improve the understanding of respondents towards each question on the questionnaire. The questionnaires were distributed to respondents via the online platform and self-administered.

The data collection with the least possible distortion is preferred in a study to obtain credible outcomes (Parveen & Showkat, 2017). The data of this study was collected via online platforms (WhatsApp group, and social media), email, and self-administered. Employees who fulfil the set criteria are eligible to be respondents to this study. The data collection started in February 2023 and the whole process roughly take two months to complete. Completed questionnaires were taken further for data analysis. However, uncompleted questionnaires were discarded.

Findings

The first section of the questionnaire which is the demographics section was analyzed using descriptive statistics. The data from this section was presented in table and graph forms. To do this, the demographic data of respondents was entered to SPSS software. The demographic items such as gender, age group, industry, education level, and income level were analyzed and discussed. The demographic information of respondents is as follows:

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| Variables | Items | Frequency (Unit) | Percentage (%) | |
|-----------------|-----------------------------|------------------|----------------|--|
| Gender | Male | 210 | 60.3 | |
| | Female | 138 | 39.7 | |
| Age Group | 18-28 years old | 97 | 27.9 | |
| | 29-38 years old | 107 | 30.7 | |
| | 39-48 years old | 92 | 26.4 | |
| | Above 48 years old | 52 | 14.9 | |
| Industry | Automotive | 16 | 4.6 | |
| | Construction | 154 | 44.3 | |
| | Food and Beverages | 70 | 20.1 | |
| | Manufacturing | 87 | 25.0 | |
| | Others | 21 | 6.0 | |
| Income Level | RM2200 and below | 76 | 21.8 | |
| | RM2201-RM3200 | 86 | 24.7 | |
| | RM3201-RM4200 | 150 | 43.1 | |
| | RM4201-RM5200 | 26 | 7.5 | |
| | RM5201 and above | 10 | 2.9 | |
| Education Level | UPSR | 33 | 9.5 | |
| | PMR | 43 | 12.4 | |
| | SPM | 135 | 38.8 | |
| | Diploma/Degree/Postgraduate | 125 | 35.9 | |
| | Others | 12 | 3.4 | |

Table 1: Demographic Information of Respondents

Source: Author

Table 2: Reliability Analysis

| Variable | Cronbach alpha | |
|--------------|----------------|--|
| Safe | .953 | |
| Train | .928 | |
| Manage | .944 | |
| PPE | .951 | |
| OSH | .953 | |
| | | |

Source: Author

Reliability analysis of the study was done through SPSS version 25. According to Bonett & Wright (2014), one of the most widely used measures of reliability is Cronbach's Alpha. Table 2 above shows the reliability analysis output of the study. According to Nunnally (1978), the acceptable value of Cronbach's alpha should be at least 0.7 and above. The Cronbach alpha value for all the variables in the study is above 0.7. Thus, this means that the questionnaire item of this study is reliable and acceptable.

Table 3: Kolmogorov-Smirnov Test of Normality

| | Statistic | | df Sig. |
|--------|-----------|-----|---------|
| Safe | .314 | 348 | .000 |
| Train | .327 | 348 | .000 |
| Manage | .313 | 348 | .000 |
| PPE | .307 | 348 | .000 |
| OSH | .308 | 348 | .000 |

Source: Author

The data will be considered normally distributed if the p-value from the Kolmogorov-Smirnov test is more than 0.05 (SPSS Tutorials, n.d.). Based on the value above, the p-value of all variables is below 0.05. This indicates that the data are not normally distributed. According to

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Statistics How To (n.d.), use a non-parametric test when the data distribution is not normal. Hence, a non-parametric test was conducted to further analyze the data of the study.

| | | Safe | Train | Manage | PPE | OSH |
|--------|-----------------|--------|--------|--------|--------|--------|
| Safe | Correlation | 1.000 | .628** | 019 | .357** | .896** |
| | Sig. (2-tailed) | | .000 | .721 | .000 | .000 |
| | N | 348 | 348 | 348 | 348 | 348 |
| Train | Correlation | .628** | 1.000 | 0.40 | .084 | .612** |
| | Sig. (2-tailed) | .000 | | .460 | .119 | .000 |
| | N | 348 | 348 | 348 | 348 | 348 |
| Manage | Correlation | 019 | 040 | 1.000 | .055 | 031 |
| 0 | Sig. (2-tailed) | .721 | .460 | | .308 | .567 |
| | N | 348 | 348 | 348 | 348 | 348 |
| PPE | Correlation | .357** | .084 | .055 | 1.000 | .460** |
| | Sig. (2-tailed) | .000 | .119 | .308 | | .000 |
| | N | 348 | 348 | 348 | 348 | 348 |
| OSH | Correlation | .896** | .612** | 031 | .460** | 1.000 |
| | Sig. (2-tailed) | .000 | .000 | .567 | .000 | |
| | N | 348 | 348 | 348 | 348 | 348 |

Table 4: Spearman Rank Correlation

** correlation is significant at 0.01 level (2-tailed) Source: Author

Table 4 above shows the correlation analysis output of the study. The data of this study is not normally distributed. Hence, Spearman Rank Correlation was used. Based on Table 4 above, it can be concluded that the availability of safety rules and procedures (SAFE) (.896) has a strong positive correlation relationship with OSH practices compliance. This reflects that when the availability of safety rules and procedures increases, the OSH practices compliance will increase. Besides, the effectiveness of safety training (TRAIN) (.612) shows a moderate positive relationship with OSH practices compliance among employees. Readiness of Personal Protective Equipment (PPE) (.460) shows a very weak positive relationship with OSH practices compliance. Contrary, management commitments towards safety (MANAGE) (-.031) show a negligible negative relationship with OSH practices compliance among employees. This indicates that when management commitments towards safety increase, this will decrease OSH practices compliance among employees in a negligible manner.

| Model | | Unstandardized B | Coefficients Std. Error | Standardized Coefficients Beta | t | Sig. | Collinearity Tolerance | Statistics VIF |
|-------|------------|---------------------|----------------------------|--------------------------------------|--------|------|---------------------------|-------------------|
| 1 | (Constant) | 448 | .123 | | -3.647 | .000 | | |
| | SAFE | .695 | .033 | .691 | 21.193 | .000 | .387 | 2.582 |
| | TRAIN | .215 | .034 | .189 | 6.249 | .000 | .451 | 2.218 |
| | MANAGE | 011 | .019 | 012 | 571 | .569 | .972 | 1.028 |
| | PPE | .200 | .023 | .201 | 8.692 | .000 | .772 | 1.296 |

Source: Author

Table 5 above shows the coefficient value obtained from the Multiple Linear Regression. According to Dhakal (2018), the P-value of less than 0.05 indicates that there is a significant relationship between the independent and dependent variables.

The standardized beta of SAFE (0.691) showed that if SAFE increases by 1 unit (%), OSH practices compliance will increase by 0.691 unit (%). The standardized beta of TRAIN (0.189) showed that if TRAIN increases by 1 unit (%), OSH practices compliance will increase by 0.189 unit (%). The standardized beta of PPE (0.201) showed that if PPE increases by 1 unit (%), OSH practices compliance will increase by 0.201 unit (%).

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The p-value for independent variables of Safe, Train, and PPE is .000 which is less than the threshold of 0.5. This indicates that these variables have a significant relationship with the dependent variable of OSH practice compliance. Table 6 below shows the summary of the relationship between the independent and dependent variables of the study.

| Variable | Relationship |
|--|-----------------|
| H1 = The availability of safety rules and procedures | Significant |
| H2 = The effectiveness of safety training | Significant |
| H3 = Management commitments towards safety | Not significant |
| H4 = The readiness of Personal Protective Equipment (PPE) | Significant |
| $\frac{114 - 116 \text{ readiness of reisonal riotective Equipment (11E)}}{2}$ | Significant |

Source: Author

Discussion

The finding of this study uncovers that the availability of safety rules and procedures (p=0.000, p<.05) has a significant impact on OSH practices compliance among employees in Kuching. Besides, the availability of safety rules and procedures $(r=.896^{**})$ has a strong positive relationship with OSH practices compliance among employees in Kuching. This indicates that when the availability of safety rules and procedures increases, the OSH practices compliance among employees in Kuching increases in a strong manner. Based on this research finding, it can be concluded that employees in Kuching value the availability of safety rules and procedures in their OSH practices compliance. Safety rules and procedures are necessary as a precautionary measure to avoid workplace injuries and accidents. Safety rules and procedures in the workplace are important as they protect workers from injury and even death. This finding is consistent with the finding from Ibrahim et al. (2012). Ibrahim et al. in their study of safety at the office found that safety rules and procedures are one of the significant factors in determining the safety at the office. The study was conducted in the northern part of Malaysia. Moreover, this study is consistent with the findings of Subramaniam et al. (2016). Subramanian et al. found safety rules and procedures to be one of the significant factors in safety behavior. The study was conducted in the northern region of Malaysia. Besides, the finding of this study is also consistent with the findings from Boadu, Wang & Sunindijo (2021). Boadu et al. in their study of challenges for OSH enforcement found that standards and policies are one of the significant factors in OSH enforcement. The study was conducted in Ghana. The availability of safety rules and procedures is proven on its significant towards OSH practices compliance among workers. The availability of safety rules and procedures will improve the efficiency and productivity of the organization because employees are protected from illness or injuries while working.

Next, the findings of this study reveal that the effectiveness of safety training (p=.000, p<.05) towards OSH practices compliance among employees in Kuching is significant. Moreover, it is also found that the effectiveness of safety training (r=.612^{**}) has a moderate positive relationship towards OSH practices compliance among employees in Kuching. This indicates that when the effectiveness of safety training increases, the OSH practices compliance among employees in Kuching will increase in a moderate manner. To conclude, the effectiveness of safety training does play a vital element in OSH practices compliance among employees in Kuching. The effectiveness of safety training is a vital component in managing the risks and hazards at the workplace. Training exposes employees to the knowledge and awareness required by them when it comes to workplace hazards and risks. The findings of this present study are consistent with the findings of a study done by Theoneste (2015). Theoneste

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found that employee training on the safety standard is one of the significant factors of OSH. The study was conducted in Uganda. Moreover, the finding of this study is also consistent with the study done by Ricci et al. (2016). Ricci et al. in their study of the effectiveness of OSH training found that the effectiveness of safety training to be a significant factor in reducing workplace injuries and accidents. Besides, the finding of this study is also supported by a study done by Burke, Sarpy, Crowe, Serafin, Salvador and Islam (2006). Burke et al. found that effective training on safety reduces workplace injuries and illness. The effectiveness of safety training has a greater effect in reducing workplace accidents. The effectiveness of safety training provides employees with the knowledge, awareness, and skills they require to conduct their jobs safely.

The finding of this study acknowledged that management commitments towards safety (p=.569, p>0.05) do not have a significant relationship with OSH practices compliance among employees in Kuching. Moreover, management commitments towards safety (r=-.031) have a negligible negative relationship with OSH practices compliance among employees in Kuching. This means that when management commitments towards safety increase, OSH practices compliance among employees in Kuching will decrease in a negligible manner. The independent variable of management commitments towards safety has an inverse relationship with the dependent variable of the study which is OSH practices compliance among employees in Kuching. Negligible here means a very small or unimportant impact. The finding of this study is consistent with the findings of a study done by Zhang, Hua, Huang & Shi (2022). Zhang et al. in their study found that management commitment toward safety was not significant in affecting employee safety performance. The study was conducted in China. Interestingly, the finding of this study is not consistent with a study done by Nderitu, Mwaura, and Gichuhi (2019). Nderitu et al. found that management commitment is one of the significant factors in OSH compliance. However, there are many direct and indirect factors that result in management commitment towards safety that do not significant impact on OSH practices compliance among employees in Kuching. Different locations might yield different results due to many other direct and indirect factors that might affect the outcome. To conclude, surprisingly, management commitments towards safety do not play a significant impact on OSH practices compliance among employees in Kuching.

The finding of this study affirmed that the readiness of Personal Protective Equipment (PPE) (p=.000, p<0.5) has a significant relationship with OSH practices compliance among employees in Kuching. Moreover, the readiness of Personal Protective Equipment (PPE) (r=.460**) has a very weak positive relationship with OSH practices compliance among employees in Kuching. This indicates that when the readiness of Personal Protective Equipment (PPE) increases, OSH practices compliance among employees in Kuching will increase in a weak manner. Employees in Kuching value the readiness of Personal Protective Equipment (PPE) in their OSH practices compliance. Hazards in the workplace exist in various ways and wearing PPE will reduce the risk of workplace hazards. Employees in Kuching have an awareness of the importance of wearing PPE to reduce workplace accidents and illness. PPE is paramount to protect workers from contracting risks and illness at the workplace. The finding of this study is consistent with the findings by Zin and Ismail (2011). Zin and Ismail in their study of OSH improvement in the construction industry found that PPE was one of the significant factors in OSH improvement. The study was conducted in Klang Valley, Malaysia. Next, the finding of this study is also supported by George, Shafqat, Verma, and Patidar (2023). George et al. in their study of determinants of PPE compliance found that the availability of PPE is one of the significant factors in OSH compliance. The study was conducted in India. Besides, the finding of this study is also supported by a study done by Al-Bayati, Rener, Listello,

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and Mohamed (2023). Al-Bayati et al. found that the readiness of PPE is one of the significant factors in workplace safety. The study was done in the US. PPE is useful and it is one of the effective ways to minimize employee's exposure to workplace risks and hazards.

Contribution

The first implication for management is this study provides insight to the management on the determinants of Occupational Safety and Health (OSH) practices compliance among employees, especially in the capital city of Sarawak, Kuching. An insight into OSH practices compliance among employees in Kuching, Sarawak is a valuable insight for management. Insight enables management to make the right management decision. The management can act based on the findings of the study to further improve their employee compliance with OSH practices.

The findings of the study pinpoint the determinants that have a significant relationship with OSH practices compliance among employees. The significant determinants that this study presents are the availability of safety rules and procedures, the effectiveness of safety training, and the readiness of Personal Protective Equipment (PPE). So, management can strengthen these three determinants to increase the OSH practices compliance among its workers. The availability of safety rules and procedures is important because it can hinder employees from workplace hazards and uphold the company's reputation. The effectiveness of safety training within an organization will ensure employees are knowledgeable and aware of workplace hazards and risks. Besides, the readiness of Personal Protective Equipment (PPE) minimizes employee's exposure to workplace hazards that can cause serious workplace injuries and accidents. Limiting risk at the workplace can improve the environment at the workplace and the employee's safety.

The implication of this study for the management is to enable the management to strategize or act based on the findings of this study. Manage can pave their strategy to improve OSH practices compliance based on the findings of this study. Strategizing for the present and future of OSH practices compliance is vital because of the ever-changing technology and machines in the workplace. The advancement of technology and machines in the workplace risks. Hence, the manager needs to strategize ahead to minimize the potential risks. Management needs to act based on the findings of this study to strengthen their OSH practices compliance within their organization or company. Management needs to set their directions for their organization or company in the future to further improve the OSH practices compliance.

The implication of this study for the management is to increase the employee's welfare and safety at the workplace. From this study, the management will be aware of the determinants that influence employees' OSH practices compliance. Employee welfare and safety at the workplace will be better given that management is aware of the determinants that influence their employees' OSH practices compliance. An increase in employee welfare and safety at the workplace will increase the company's productivity and attract more potential employees to join the company. Workplace accidents are a serious matter for any company or organization. Workplace accidents will result in reduced production because some sort of investigation will force the company to shut down its operation. When the management is aware of the determinants that can increase their employees' OSH practices compliance, they will enforce or further strengthen the effective determinants in an effort to increase their employees' OSH practices compliance. In turn, this will reduce workplace accidents.

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The implication for academics is this study provides literature for academicians who participate in this field of study. Interestingly, the study found that management commitments towards safety do not have a significant relationship with OSH practices compliance among employees. Literature in the field of OSH practices compliance will be expanded with the presence of this study especially in the capital city of Sarawak, Kuching. The presence of this study provides some readings to the academicians who are interested in this field of study. This can enhance their knowledge and understanding in the field of OSH practices compliance. Moreover, this study provides some reference for future studies. Citation and reference are important to justify or support the researcher's claim and finding.

The next implication for academics is this study provides directions for future study in the same field of OSH practices compliance. The directions for future study are important to produce an effective and efficient study. Based on the directions of the study, other researchers can take note of what is needed to have a better study in the future. This will yield better study results for other researchers. Basically, other researcher gets to learn based on other researcher' experiences in conducting a study in the same field.

Moreover, other researchers can take on the gap of the study. This study might spark some interest for academicians to conduct a study in this area. Other academicians or researchers who are interested in doing a study in this field can take on the gap of the study. The gap in the study provides some niche areas for them to explore or study. This results in more research in the same field in the future.

Recommendations for Future Research

The recommendation of the study is to expand the study throughout Sarawak to get a better understanding of OSH practices compliance. Sarawak is one of the biggest states in Malaysia. According to Asiamah, Mensah, and Abayie (2017), a larger sample will contribute to a better representation of the population in the study area. The bigger the population will yield a better result that can represent the whole state of Sarawak. The presence study only caters to the capital city of Sarawak, Kuching. Kuching is only one division within the state of Sarawak. The findings of this study might not be applicable to Miri, Sibu, or Bintulu. So, it is recommended to study the OSH practices compliance throughout the state of Sarawak.

The gap in the study is in the data collection process. It is recommended to do a mixedmethod study to get a better generalization of the study. A mixed-method study is a combination of quantitative and qualitative research. According to Emerald Publishing (n.d.), the mixed-method study can result in a better understanding of the study's niche area and produce complete evidence. Researchers can utilize questionnaires and interviews to get a better understanding of the determinants of Occupational Safety and Health (OSH) practices compliance among employees in Kuching. The current study only captures respondents' data through a questionnaire. In-depth interviews with respondents will strengthen the findings of the study. The interview provides a better understanding of the OSH practices compliance among employees.

Another recommendation of the study is to get a translator. Communication barrier with the respondent's consumer time during the data collection process. Language barriers yield ineffective and inefficient data collection processes. A translator is needed to deal with respondents who do not speak the same language as the researcher. A translator will speed up and smoothen the data collection process. Respondents need to clearly understand what the questionnaire is all about before they can answer the questionnaire. Moreover, with a translator,

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the researcher can better brief and explain the questionnaire. Translation service is a must when dealing with respondents from various races and educational backgrounds.

Next, it is recommended to further expand the research framework. The research will yield better results if more independent variables are added. Independent variables are not restricted to the four used in this study. There are some other independent variables that are proven by other researchers in the same field. Besides, the moderator and mediator can also be considered to be included in the research framework. This will add depth to the study and yield better results. There are other factors that influence the OSH practices compliance among employees that could be considered. However, due to time constraints, researchers stick to just 4 independent variables.

Besides, it is recommended to have the questionnaire in multi-language. The present study provides the questionnaire in two main languages namely English and Bahasa Malaysia. Apparently, two main languages was not sufficient as the respondents were from diverse races. It is recommended to cover at least all the main languages spoken in a particular state. In Sarawak, the main spoken languages are Iban, Bidayuh, Mandarin, and Bahasa Melayu Sarawak. So, it is best to have the questionnaire to be in the respondent's native language for their better understanding of the questionnaire. This will yield a better result because the respondents understand better the requirements of the questionnaire.

Conclusion

This study discussed and concluded with the findings of this study on the determinants of Occupational Safety and Health (OSH) practices compliance among employees in Kuching. The finding of the study revealed that the availability of safety rules and procedures, the effectiveness of safety training, and the readiness of Personal Protective Equipment (PPE) are significant factors in determining Occupational Safety and Health (OSH) practices compliance among employees in Kuching. The implications of this study are divided into two namely for management and for academics. The limitations of this study are time constraints, budget constraints, and communication barriers to name a few. The recommendations for future study are bigger population of the study, conduct interviews to gain more insight into the field of study, and get a translator to name a few.

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References

Abdul, A., Warishah, A.W., Rohayu, C.O., Mohd, Z.M.N., Hairin, T., & Rasyikin, R. (2021). Factors influencing the compliance of workplace safety culture in the Government Linked Company (GLC). ICST 2021 – The 2nd Geoscience and Environmental Management Symposium. Yogyakarta, Indonesia.

Al-Bayati, A.J., Rener, A.T., Listello, M.P., & Mohamed, M. (2023). PPE non-compliance among construction workers: An assessment of contributing factors utilizing Fuzzy Theory. *Journal of Safety Research*, 85(June 2023). doi.org/10.1016/j.jsr.2023.02.008

Alghaseb, M.A. & Alshmlani, T. (2022). OSH performance within TQM application in construction companies: A qualitative study in Saudi Arabia. *International Journal of*

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Published: 31 December 2023

Environmental Research and Public Health, 2022(19). doi.org/10.3390/ijerph1912299.

Ashikin (2022, January 8). Sarawak Energy aims zero workplace incidents. *Dayak Daily*. https://dayakdaily.com/sarawak-energy-aims-zero-workplace-incidents/

Asiamah, N., Mensah, H.K., & Abayie, E. F. (2017). Do larger samples really lead to more precise estimates? A Simulation Study. *American Journal of Educational Research*, 5(5). doi.org/10.12691/education-5-1-2

- Attractions in Malaysia (n.d.). *Kuching*. Retrieved from https://sarawak.attractionsinmalaysia.com/kuching.php
- Ayob, A., Ibrahim, A.M., Mokhtar, H., Syamsyiah, N.R., Din, A.Z., Zahid, M.Z., Mustaqqim, A R., & Hazif, Z. (2021). Evaluation of Occupational Safety and Health at construction site in state of Perlis [Paper Presentation]. 4th National Conference on Wind & Earthquake Engineering, Bagor, Indonesia.
- Balkissoon, M.N. (2016). Occupational Safety and Health Management System implementation metrics: Results of a survey of manufacturing companies in a small island developing state. *The Journal of the Association of Professional Engineers of Trinidad and Tobago*, 44(2). doi.org/10.6084/m9.figshare.4573480
- Bhandari, P. (2021). *Questionnaire design* | *Methods, question types & examples.* Scribbr. Retrieved from https://www.scribbr.com/methodology/questionnaire/
- Boadu, E.F., Wang, C.C. & Sunindijo, R.Y. (2021). Challenges for Occupational Health and Safety enforcement in the Construction Industry in Ghana. *Construction Economics and Building*, 21(1). https://doi.org/10.5130/AJCEB.v21i1.7482
- Bonett, D.G. & Wright, T.A. (2014). Cronbach's alpha reliability: Interval estimation, hypothesis testing, and sample size planning. *Journal of Organizational Behavior*, 36(1). doi.org/10.1002/job.1960
- Bulanda, A.B. (2019). Impact of Occupational Health and Safety regulations on the employee's decision to take up employment. *CzOTO*, *1*(1). doi.org/10.2478/czoto-2019-0018.
- Burke, M.J., Sarpy, S.A., Crowe, K.S., Serafin, S.C., Salvador, R.O., & Islam, G. (2006). Relative effectiveness of worker Safety and Health Training methods. *American Journal of Public Health*, 96(2). doi.org/10.2105/AJPH.2004.059840.
- Champoux, D. & Brun, J.P. (2016). OSH practices and interventions in small businesses: Global issues in the Quebec context. *Policy and Practice in Health and Safety*, *13*(1). doi.org/10.1080/14774003.2015.11667811.
- Cherrie, J., Semple, S, & Coggins, M.A. (2021). *Monitoring for health hazards at work (5th Ed.)*. Wiley-Blackwell.
- Cristi, S., Birau, R., Ejaz, A., Yazdan, M.A., Hassan, Z., & Mitu, N. E. (2022). Investigating the nexus between safety training, safety rules and procedures, safety performance and protection against hazards in Pakistani construction companies considering its impact on textile industry. *Industria Textilă*, 73(1). doi.org/10.35530/IT.073.01.202154.
- Department of Occupational Safety and Health. (n.d.). *DOSH profile*. Retrieved from https://www.dosh.gov.my/index.php/about-us/dosh-profile
- Department of Statistics Malaysia (2022). *Big data analytics: National occupational accident and disease statistics 2021*. Retrieved from https://www.dosm.gov.my/v1/index.php?r=column/cthemeByCat&cat=492&bul_id= MkRoQ2IyZ0JkdEIIZ0JidUhpaWxydz09&menu_id=WjJGK0Z5bTk1ZEIVT09yUW 1tRG41Zz09#:~:text=For%20the%20year%202021%2C%20the,1.43%20(2020%3A %202.18).

Accepted: 6 November 2023

- Dhakal, C.P. (2018). Interpreting the basic outputs (SPSS) of Multiple Linear Regression. *International Journal of Science and Research*, 8(6). doi.org/10.21275/4061901
- Edward, C. (2019, September 24). Cityone Megamall management company charged with failing to provide safety measures during blast. *Borneo Post Online*. https://www.theborneopost.com/2019/09/24/cityone-megamall-management-company-charged-with-failing-to-provide-safety-measures-during-blast/
- Emerald Publishing (n.d.). *How to use mixed methods research*. Retrieved from https://www.emeraldgrouppublishing.com/how-to/research-methods/using-mixed-methods-research
- Etikan, I., Musa, S.A., & Alkassim, R. S. (2016). Comparison of Convenience Sampling and Purposive Sampling. *American Journal of Theoretical and Applied Statistics*, 5(1). doi.org/10.11648/j.ajtas.20160501.11
- Exposto, L.A., Fransisco, M., Goncalves, T.R., Colo, A.L., Barros, Q.F., Costa, H.M.C., & Fontes, R. (2022). Monitoring the use of Personal Protective Equipment on employers' health and safety. *Indonesian Journal of Multidisciplinary Science*, 1(4). doi.org/10.55324/ijoms.v1i4.66
- Feriyanto, D., Malik, A., & Zakaria, S. (2020). Occupational Safety and Health (OSH) practices and its influenced factor-review OSH in Malaysia. *International Journal of Advanced Technology in Mechanical, Mechatronics and Materials*, 1(3). doi.org/10.37869/ijatec.v1i3.36.
- George, J., Shafqat, N., Verma, R., & Patidar, A.B. (2023). Factors influencing compliance with Personal Protective Equipment (PPE) use among healthcare workers. *Cureus*, 14(2). doi.org/10.7759/cureus.35269
- Hassan, R., Ismail, A.R., Makhtar, N.K., & Jusoh, N. (2021). Improving Occupational Safety and Health (OSH) enforcement among employers in manufacturing sector in Kelantan. In Razak, A. R., Abdullah, M. M., Rahim, Z., Tahir, M. F., Mortar, N. A. & Jamaludin, L. (Eds.), 8th International Conference on Advanced Materials Engineering & Technology (ICAMET 2020). AIP Publishing.
- Hughes, S. E. (2009). Health and safety. In *A quick guide to welding and weld inspection* (pp. 125-134). Woodhead Publishing
- Ibrahim, I.I., Sarina, M.N., Noraini, N., & Zulaiha, A. (2012). Safety in the office: Does it matter to the staff? *ASEAN Conference on Environment-Behaviour Studies*, Bangkok, Thailand.
- Jonathan, G.K. & Mbogo, R.W. (2016). Maintaining Health and Safety at Workplace: Employee and employer's role in ensuring a safe working environment. *Journal of Education and Practice*, 7(29), 1-6.
- Kasuma, J., Ismailly, N., Ghaffari, S., Rusuli, M.S., & Gapor, A. K. (2019). Environmental factor, education & training and PPE impact on safety performance: A study among construction workers at SESCO Sub-station, Balingian, Sarawak. *Research in World Economy*, 10(2). doi.org/10.5430/rwe.v10n2p38
- Khan, W.A., Mustaq, T. & Tabassum, A. (2014). Occupational health, safety and risk analysis. *International Journal of Science, Environment and Technology*, *3*(4), 1336–1346.
- Khine, M.O., Wut, Y.A., & Seng, N.A. (2020). Evaluation of fundamental OSH practices among building construction worksites. *Journal of Science, Engineering and Education, June*(2020), 113-116.
- Khoo, N.K., Hanipah, H., & Norida, A. (2018). Best practices of OSH compliance in the SME Melaka manufacturing sectors. *Journal of Technology Management and*

Published: 31 December 2023

Technopreneurship, 6(1). Pp. 11-30. Retrieved from https://core.ac.uk/download/pdf/229280051.pdf

- Khoo, T.H., Surienty, L., & Kee, M.H. (2011). Occupational Safety and Health (OSH) in Malaysian Small and Medium Enterprise (SME) and effective safety management practices. *International Journal of Business and Technopreneurship*, 1(2), 321-328.
- Kumar, A. (2018, December 4). 3 dead, 29 injured in Kuching mall explosion (Updated). *TheSunDaily*. https://www.thesundaily.my/local/3-dead-29-injured-in-kuching-mall-explosion-updated-AD207714

Lai, C. (2019, December 22). Preventing workplace accidents and fatalities. *Borneo Post Online*. https://www.theborneopost.com/2019/12/22/preventing-workplace-accidents-and-fatalities/

- Liu, Y.C., Kuo, R.L., & Shih, S.R. (2020). COVID-19 was first reported in Wuhan, China, and subsequently spread worldwide. *Biomedical Journal*, 43(4). doi.org/10.1016/j.bj.2020.04.007
- Maharja, R., Faradisha, J., & Panggeleng, A.M. (2022). Safety behaviour tendency among welders by utilising Personal Protective Equipment. *Al-Sihah: Public Health Science Journal*, 14(2). doi.org/10.24252/al-sihah.v14i2.33279.
- Mayanja, L.N., Ddamulira, C., Katamba, P., & Mutekanga, D. R. (2022). Determinants of compliance to Occupational Health and Safety measures in construction sites in Kampala Central Division, Kampala City, Uganda. World Journal of Advanced Research and Reviews, 14(02). https://doi.org/10.30574/wjarr.2022.14.2.0216
- McCombes, S. (2019). *Sampling methods: Types, techniques & examples*. Retrieved from https://www.scribbr.com/methodology/sampling-methods/
- McGonagle, A.K., Essenmacher, L., Hamblin, L., Luborsky, M., Upfal, M., & Arnetz, J. (2016). Management commitment to safety, teamwork, and hospital worker injuries. *J Hosp Adm*, 5(6). doi.org/10.5430/jha.v5n6p46.
- Mishra, P., Pandey, C. M., Singh, U., Gupta, A., Sahu, C. and Keshri, A. (2019). Descriptive statistics and normality tests for statistical data. *Annals of Cardiac Anaesthesia*, 2019(22). https://doi.org/10.4103/aca.ACA_157_18
- Mostafa, N.S. & Momen, N. (2014). Occupational Health and Safety Training: Knowledge, attitude and practice among technical education students. *Egyptian Journal of Occupational Medicine*, 38 (2). doi.org/10.21608/ejom.2014.795
- Nadzirah, M.F., Iman, H., Munirah, S., Firdaus, M.S. & Wahida, I. (2022). The effectiveness of safety practices on safety behavior among employees at SMEs Manufacturing Sector. *e-Proceeding of the 9th International Conference on Management and Muamalah 2022* (ICoMM 2022). Retrieved from http://conference.kuis.edu.my/icomm/9th/eproceeding
- Nazari, T. (2020, July 28). Medical frontliners in Sarawak report insufficient PPE supply and poor quarantine facilities. *TheRakyatPost*. https://www.therakyatpost.com/news/malaysia/2020/07/28/medical-frontliners-insarawak-report-insufficient-ppe-supply-and-poor-quarantine-facilities/
- Nderitu, R., Mwaura, P., & Gichuhi, D. (2019). Management commitment influence on implementation of Occupational Health and Safety Policies in water and sanitation companies in Nyeri County, Kenya. *International Journal of Research In Business And Social Science*, 8(6). doi.org/10.20525/ijrbs.v8i6.569
- Nunnally, J.C. (1978). Psychometric Theory (2nd ed.). New York: McGraw-Hill.

Accepted: 6 November 2023

- Parente, E. (2023). Safety protocols and Personal Protection Equipment. In Reynolds, M. & Theodore, L. (Eds.), A Guide to Virology for Engineers and Applied Scientists: Epidemiology, Emergency Management, and Optimization. Willey.
- Parveen, H., & Showkat, N. (2017). *Data collection*. Retrieved from https://www.researchgate.net/publication/319128325_Data_Collection
- Petinggi, G. (2022, April 1). DOSH Sarawak reminds construction sites to appoint safety and Health Officers. *Borneo Post Online*. https://www.theborneopost.com/2022/04/01/dosh-sarawak-reminds-constructionsites-to-appoint-safety-and-health-officers/
- Poursadeghiyan, M., Ebrahimi, M.H., Abbasi, M., Khandan, M., Biglari, H., & Hami, M. (2017). Effects of administrative interventions on improvement of Safety and Health in workplace: A Case Study in an Oil Company in Iran (2011-2015). *Journal of Engineering and Applied Sciences*, 11(3). doi.org/10.3923/jeasci.2016.346.351.
- Povera, A. (2017, December 26). NIOSH renews safety calls in wake of fatal Kuching construction site accident. *New Straits Times.* https://www.nst.com.my/news/nation/2017/12/318517/niosh-renews-safety-calls-wake-fatal-kuching-construction-site-accident
- Raosoft (n.d.). *Raosoft online sample size calculator*. Retrieved from http://www.raosoft.com/samplesize.html
- Ricci, F., Chiesi, A., Bisio, C., Panari, C., & Pelosi, A. (2016). Effectiveness of Occupational Health and Safety Training: A systematic review with meta-analysis. *Journal of Workplace Learning*, 28(6). doi.org/10.1108/JWL-11-2015-0087.
- Rondinone, B.M., Valenti, A., Boccuni, V., Cannone, E., Dionisi, P., Gagliardi, D., Boccuni, F., & Lavicoli, S. (2021). Contribution of ICOH to address the different OSH needs among countries: Results of a survey. *International Journal of Environmental Research* and Public Health, 18(9). doi.org/10.3390/ijerph18094665.
- Sarawak Government (n.d.). *Sarawak population*. Retrieved from https://sarawak.gov.my/web/home/article view/240/175.
- Sarok, A. & Susil, J. (2012). Occupational hazards in the workplace: A case of an electronic company in Sama Jaya, Kuching, Sarawak, Malaysia. Asian Journal of Business Research, 2(1). https://doi.org/10.14707/ajbr.120001
- Shepard, B. (2022, August 8). Study shows PPE was highly effective against COVID-19 in emergency department workers. UAB News. https://www.uab.edu/news/research/item/13025-study-shows-ppe-was-highlyeffective-against-covid-19-in-emergency-department-workers
- Shin, J., Kim, Y., & Kim, C. (2021). The Perception of Occupational Safety and Health (OSH) regulation and innovation efficiency in the Construction Industry: Evidence from South Korea. *International Journal of Environmental Research and Public Health*, 2021(18). doi.org/10.3390/ijerph18052334.
- Sijabat, F., Sinaga, J., Pardede, J.A., & Hutagalung, S.N. (2021). Keterbatasan APD terhadap kesiapan mental perawat dalam merawat pasien Covid-19. *Jurnal Ilmu Keperawatan Jiwa*, 4(3). Pp. 517-524.
- SPSS Tutorials. (n.d.). SPSS Kolmogorov-Smirnov Test for normality. https://www.spss-tutorials.com/spss-kolmogorov-smirnov-test-for-normality/
- Statistics How To (n.d.). *Non Parametric data and tests (distribution free tests)*. Retrieved from https://www.statisticshowto.com/probability-and-statistics/statistics-definitions/parametric-and-non-parametric-data/

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- Subramaniam, C., Shamsudin, F.M., Zin, M.L., Ramalu, S.S., & Hassan, Z. (2016). The influence of safety management practices on safety behavior: A study among manufacturing SMES in Malaysia. *International Journal of Supply Chain Management*, 5(4). https://doi.org/10.59160/ijscm.v5i4.1370.
- Sulastre, M.Z. & Faridah I. (2011). Employers' behavioural safety compliance factors toward occupational, safety and health improvement in the construction industry. *ASEAN Conference on Environment-Behaviour Studies,* Savoy Homann Bidakara Bandung Hotel, Bandung, Indonesia.
- Surienty, L. (2019). SH Implementation in SMEs in Malaysia: The Role of Management Practices and Legislation: Volume II: Safety and Health, Slips, Trips and Falls. In S. Bagnara, R. Tartaglia, S. Albolino, T. Alexander & Y. Fuhita (Eds.), *Proceedings of the 20th Congress of the International Ergonomics Association (IEA 2018)* (pp. 650-671). Springer. https://doi.org/10.1007/978-3-319-96089-0 72
- Syahhira (2022, January 8). SEB takes steps to keep workers safe. *New Sarawak Tribune*. https://www.newsarawaktribune.com.my/seb-takes-steps-to-keep-workers-safe/
- Syaidan, M. & Ifwat, M. (2018). Overcoming Issues in Occupational Safety and health compliance among contractors in Paddy and Rice Industry. *International Journal of Engineering & Technology*. 7(3). doi.org/10.14419/ijet.v7i3.24.17298
- Theoneste, M. (2015). The effect of occupational health and safety practices on healthcare providers' perfomance at Kinihira Hospital [Bachelor's thesis, Uganda Christian University]. Academia. https://www.academia.edu/24642556/THE_EFFECT_OF_ OCCUPATIONAL_HEALTH_AND_SAFETY_PRACTICES_ON_HEALTH_CAR E PROVIDERS PERFORMANCE
- Veno, J. (2015, September 16). DBKU wants to maintain 'Zero Lost Time Injury' record. Borneo Post Online. http://www.theborneopost.com/2015/09/16/dbku-wants-tomaintain-zero-lost-time-injury-record/#ixz23lya5gJx3
- Vinodkumar, M.N. (2010). Safety management practices and safety behavior: Assessing the mediating role of safety knowledge and motivation. *Accident Analysis and Prevention*, 42(6). doi.org/10.1016/j.aap.2010.06.021
- World Health Organization. (n.d.). *What is PPE?* Retrieved from https://www.who.int/teams/health-product-policy-and-standards/assistive-andmedical-technology/medical-devices/ppe
- Yussop, Y. (2017, December 7). 'PPE useful in preventing accidents at workplace'. *Borneo Post Online*. https://www.theborneopost.com/2017/12/07/ppe-useful-in-preventingaccidents-at-workplace
- Zhang, S., Hua, Z., Huang, G., & Shi, X. (2022). How does leadership in safety management affect employees' safety performance? A Case Study from Mining Enterprises in China. *International Journal of Environmental Research and Public Health*, 19(10). doi.org/10.3390/ijerph19106187
- Zin, S.M. & Ismail, F. (2011). Employers' behavioural safety compliance factors toward occupational, safety and health improvement in the construction industry. *Procedia -Social and Behavioral Sciences, 36*(2012). https://doi.org/10.1016/j.sbspro.2012.03.081