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Factor Contributing to the Worker Accident in the Oil Palm Plantation at Jasin Melaka

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Abstract

The workers used in oil palm plantations is fraught with many different kinds of dangers that could lead to an accident. To prevent a disaster from happening in the future, the first step is to figure out why it happened in the past. This study aims to determine the relationship of mindset, employer, awareness, facilities, and workers accident. The primary data used in this study come from questionnaires on respondents' mindset, awareness, employer, facilities and workers accident. From 90 people as the population, 75 respondents who met the criteria as a sample were chosen by using the Krejcie and Morgan table. The analytical method used is multiple linear regression analysis using SPSS Version 22. The results of this study indicate that there is a positive and significant influence simultaneously. Facilities is the main drivers in affecting the accident that happening in Jasin Melaka Estate. Therefore the estate management should discussed and communicate with their workers to met up the safety demand from the workers.

Keywords*:* Weather Parameters, Yield, Oer (Oil Extraction Rate), Fertilizer, Temperature, Wind Speed, Rainfall, Fresh Fruit Bunches (Ffb) And Productivity.

Introduction

According to Abdullah et al. (2012), he discovered that the accident that occurred at work had gotten to be the worst, and the organisation that was engaged was recognised as being a serious worry. As of the month of December in 2014, the Department of Occupational Safety and Health of Malaysia (DOSH) reported that. According to the DOSH annual report from the Malaysian OSH, there are an average of 542 cases per year related to occupational accidents in the agriculture industry. This information is based on the findings of the Malaysian OSH. It has been demonstrated, as stated by Zolkifli et al. (2016), that agriculture is on par with other industries such as the construction industry and the manufacturing business in terms of being the most dangerous industry overall. They should take the initiative to monitor the occurrence of accidents involving personnel in the agricultural industry, given that the most dangerous occupational accidents occur in the agricultural sector. The income of the company is determined by its workforce. It is not possible to carry out many of the operations that are

necessary in the agricultural or plantation industry if there are no staff. Accidents in the workplace can have substantial repercussions for the companies that are involved, including monetary loss as well as non-financial aspects of the disaster, such as a decrease in workers' confidence and an influence on the reputation of the company. Hassan with a number of other authors (2017). This research will also focus on the planting industry in order to get knowledge regarding harvester safety and the factors that contribute to accident rates. The mishap involving the harvester could have been caused by a number of different things. As a result of this, the purpose of this research is to determine which factors among harvesters are responsible for the majority of accidents. In most cases, harvesters of Fresh Fruit Bunches (FFB) are responsible for the daily harvesting, collecting, and loading of FFB to be taken to the mill. During the course of their work, they could be involved in a number of accidents. According to Nordin et al. (2016), ergonomic problems and risky activities are unavoidable on the job given the requirements of the position. Multiple hazardous tasks, including potential physical dangers, potential biological dangers, and potential chemical dangers, are routinely imposed on workers. The harvester used in oil palm plantations is fraught with many different kinds of dangers that could lead to an accident. To prevent a disaster from happening in the future, the first step is to figure out why it happened in the past. The following categories serve as the independent variables for this research: attitude, understanding, leadership, exercise, and equipment.

Finally, there is an absence of awareness regarding the health and safety of the employees and contractors. Most workers have reported that their Personal Protective Equipment (PPE), which can be cumbersome and uncomfortable, is a nuisance for them. Personal Protective Equipment (PPE) is something that the company does not supply for its staff members, which is regrettable. There is no need to be concerned about the health and vitality of the company's representative because the business is profitable.

Hence, the objectives of this study are:

1)To determine the relationship of mindset, employer, awareness, facilities and workers accident.

2) To Determine which factors, have the greatest effect on an accident in the estate.

The paper begins with a tour of the study methodology and then follows. Subsequently, the survey results are analyzed. A discussion of these results concludes the paper

Materials and Methods

Conceptual framework is an explanation of the linkage or relationship of a theory with important factors that have been known in a problem. The conceptual framework in this study is built on theoretical views and previous empirical research on correlation between mindset, employer, awareness and facilities as well as workers accident. The relationship between variables used in this study can be seen in Figure 1. The study was conducted at 1900 hectares of oil palm estate. Target population in this research were employees of oil palm estate in Jasin Melaka, which cover all scope of task in, with the total number of samples were 75 people from 90 population based on the population table that was been developed by the Krejcie & Morgan (1970). Before administering the survey to a full sample of estate sites, a pilot test was carried out.

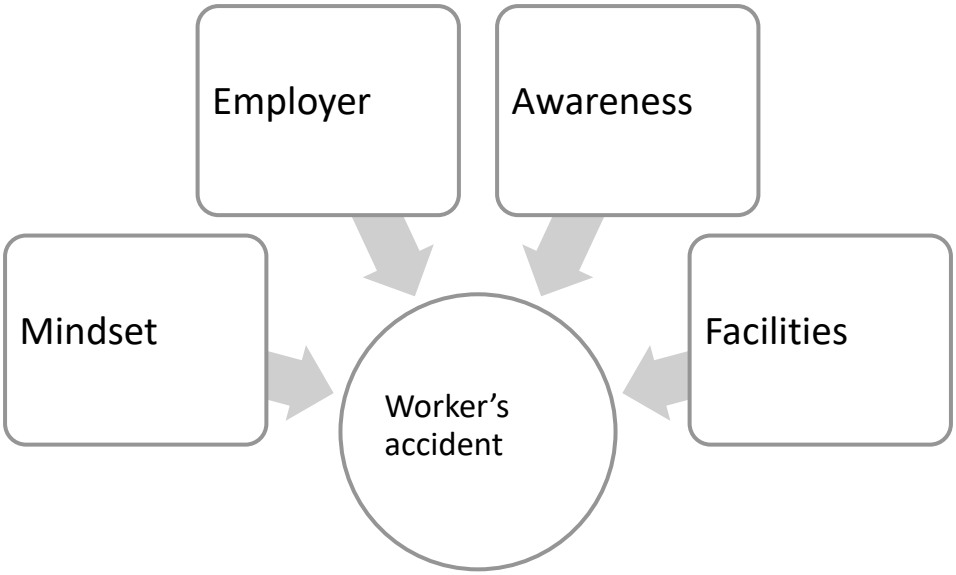

Figure 1: Conceptual framework

Results And Discussion

Reliability Test

From table 1, the results of Cronbach's alpha show a positive consistency on the data when Cronbach's Alpha value estimated was higher than the index of reliability test (0.6). This shows that there is consistency among the workers, and it can be concluded that the study based on the questionnaires is fit for this study Reliability measure how all items in a set questionnaire are positively or negatively to correlated to one another. Previous studied showed the instrument used in the survey should have reliability of 0.7 or more (Nunnaly, 1978). Reliability value less than 0.6 was considered weak and reliability value 0.70 is considered acceptable. Meantime, the Cronbach's alpha has more than 0.8 be considered good and valid (Andale, 2014).

Table 1:
Reliability Test

Variables	**Cronbach's Alpha**	**Status**
Mindset	0.811	Reliable
Employer	0.734	Reliable
Facilities	0.726	Reliable
Awareness	0.778	Reliable
Worker's accident	0.756	Reliable

Relationship between Factors Contributed to employee absenteeism.

Pearson Correlation Analysis was used to identify the relationship between the independent variables (mindset, employer, awareness and facilities) that affect the dependent variable (worker accident). The correlation value is as presented in Table 2 below:-

Table 2:
Correlation value Interpreted according to Hinkle, Wiersma and Jurs (1988)

Correlation Value	Relationship Strength
± 0.90 - 1.00	Very Strong
± 0.70 – 0.90	Strong
± 0.50 – 0.70	Averagely Strong
± 0.30 – 0.50	Weak
± 0.01 – 0.30	Very Weak
0	No relationship

Table 3:
Analysis of a correlation between stress, family issues, working environment salary and employee absenteeism.

Workers Accident

Factors	Significant *(p)*	Correlation value *(r)*	Relationship strength
Mindset	0.002	0.821**	Strong
Facilities	0.009	0.824**	Strong
Awareness	0.003	0.743**	Averagely strong
Employer	0.007	0.653**	Averagely strong

From table 3, Pearson Correlation test was conducted. Based on the findings, it was found that facilities showed a high correlation value r = .824 compared to other factors. Meanwhile, mindset showed value r = .821. The other two factors that is awareness (r = 0.743) and employer (r = 0.653) have a averagely strong relationship with the accident happening to the workers.

Multiple Linear Regressions analysis

Table 4:
Model of Summary

Model	R	R^2	Adjusted R^2	Std. Error of the Estimate
1	0.562	0.367	0.277	0.39643

According to Table 4, the coefficient of determination (R^2) of 0.367, meaning 37 per cent of workers accident can be showed by the independent variable of mindset, employer, awareness, and facilities. While the remaining 0.63 or 63.0 per cent is explained by other causes that are not included in this research model.

Table 5:
Results of Multiple Regression Analysis

Unstandardized coefficients			Standardized coefficients			Collinearity Statistics	
Model	B	Standard error	β	*t*	significance	Tolerance	VIF
Awareness	.242	.097	.207	0	4.00	.588	1.70
Facilities	.219	.070	.251	2.49	0.01	.636	2.00
Mindset	.191	.080	.207	1	4.00	.548	1.57

Next, multiple regression analysis was applied to see which factor impact workers accident. Regression analysis aids to measure the relative strength of independent variable on dependent variable. Due to three predictors are correlated, multicollinearity must be diagnosed using tolerance and Variance inflation factors (VIF). Values of VIF that exceed 10 and tolerance below 0.25 are regarded as multicollinearity. It is discovered the regression model is fit. All direct positive relationship between variables and employee's accident were examined using multiple regression analysis to ascertain the extent to which they explain that the variance in accident happening in estate. Two variables significantly impact the workers accident with facilities (B=0.219) providing the largest level of impact and followed by mindset (B=0.191). This indicate that if the rate of each factor increases, then workers accident in Estate Jasin Melaka will also increase.

Conclusion

All study goals were accomplished in the end. This is confirmed by the analysis performed using SPSS. One of the goals of this study was to investigate potential causes of accidents among oil palm workers, and this goal was achieved. The correlation analysis has shown that these three factors are significantly linked to impacting fortune in the workplace. This highlights how all three of these variables might contribute to an unsafe working environment.

The second objective is to identify the most important factors that can influence the risk of accidents happening to oil palm workers. Infrastructure is the backbone of any economy. It's safe to say that, when it comes to potential causes of workplace accidents, facilities are far and away the most important element.

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