# HEALTH AND SAFETY ON COMPANY PERFORMANCE AT PT LEIGHTON CONTRACTOR INDONESIA (LCI) IN LIKUPANG

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#### **ABSTRACT**

Organizations and companies that smart enough to realize about the importance of health and safety started to give more attention to their organizational and management impact on safety performance particularly the function of health and safety. Health and safety have an important role in organizations profit. Profit margins are higher among the organizations with better on their health and safety management. This study aimed to find out does health and safety have an influence on company performance at PT. Leighton Contractors Indonesia. The type of this research is associative research and uses causal type of research where it is designed to determine whether health and safety have an influence or affects the company performance. The result shows that health and safety have an influence on company performance based on the influence analysis also health and safety and company performance have a strong relationship as shown in coefficient correlation. The result shows that health and safety influence the company performance simultaneously and partially. It is better for the management of the company to maintain the employees to keep following the rules of health and safety and if it is able, the company can improve the policy of health and safety.

**Keywords:** health, safety, company performance

# INTRODUCTION

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#### Research Background

In the past few years some organizations and companies that smart enough to realize about the importance of health and safety started to give more attention to their organizational and management impact on safety performance particularly the function of health and safety management. The interest in health and safety management is due to major disasters that highlighted the failings of management to protect the health and safety of their workers and thus, to comply with Occupational Health and Safety Act as to fulfill their responsibilities as an employer to ensure that workers have a safe work-place (Hale et al., 1997).

Health and safety also have an important role in organizations profit. Profit margins are higher among the organizations with better on their health and safety management. Also in organizations that are not concern to their health and safety management, their employees have more accidents report than the organizations that have concern to their health and safety. The unconcerned organizations also tend to lose more working days because of accident compare to the concerned one. The total sickness absence is also a bit higher in the unconcerned organizations than the concerned organizations. The results showed that health and safety management has a significant effect on employee outcomes, with a number of significant differences between the unconcerned organizations and the concerned organizations.

Health and safety in the workplace have become an integral component to the viability of business for employers, labor unions, governments, and environmentalists in general (McIntosh and Gough, 1998). A health and safety working environment is a crucial factor in the individual's quality of life and is also a collective concern. Naturally a need for safety is an intrinsically human concern. Every individual whether one is employed or not, both at the workplace and outside the workplace has a need to be safe.

## **Research Objective**

This research objective is to find out does health and safety have an influence on company performance at PT. Leighton Contractors Indonesia (LCI).

#### THEORETICAL FRAMEWORK

#### **Theories**

## **Human Resources Management**

Flippo (1984) in his book Personel Management cited by Lalchandani (2007) defines Human Resources Management as "the planning, organizing, directing, and controlling of the procurement, development, compensation, integration and maintenance and separation of human resources to the end that individual, organization and social objectives are accomplished". According to Storey (1995:5) HRM is a distinctive approach to employment management which seeks to achieve competitive advantage through the strategic deployment of a highly committed and capable workforce, using an array of cultural, structural and personnel techniques. Bratton and Gold (2007:7) HRM is a strategic approach to managing employment relations which emphasizes that leveraging people's capabilities is critical to achieving competitive advantage, this being achieved through a distinctive set of integrated employment policies, programmes and practices.

#### Health

World Health Organization/WHO (1946) in its broader sense define Health is a "state of complete physical, mental and social well-being and not merely the absence of disease or infirmity." The WHO's (1986) Ottawa Charter for Health Promotion further stated that health is not only a state nor the object of living but also a resources for everyday life. Health is a positive concept emphasizing social and personal resources and physical capacities as well.

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#### **Health and Safety Practice**

Worksafe Australia (1995:5) has described health and safety best practice as one of the elements to be integrated into the overall continuous improvement process, in addition to a series of discrete health and safety practices or critical success factors.

#### Health and Safety at Work

Cole (2002) cited by Felix (2012) state that employers or companies have a obligation to provide a safe workplace for their employees responsible for accident encounter by their employees in terms of their job. Part of the company's social responsibilities toward employees' necessity, should include given the employees opportunity to participate in every activities in company and give them proper-continuously safety training in order to keep them upgraded and aware about their health and safety and prevent them from the accidents. (Ayodele & Olubayo-Fatiregun, 2010).

## **Company Performance**

Descriptions of organisational/company performance (or organisational effectiveness) vary from: "to accomplish something with a specific intention" (Lebas & Euske, 2002: 68) to "the performance of a firm is what it does" (Meyer, 2002: 61). Meyer (2002: 56) A more specific definition of organisational performance is 'what firms' do that generates revenues in excess of costs.

#### **Previous Research**

Akpan (2011) trying to determine the correlation between effective health and safety management policy and organizational performance in Africa. He revealed greater percentage of organizational success based on the maintenance of effective health and safety management system. He then concludes that Effective health and safety management have been discovered to have positive correlation with increased organizational performance and profitability, as the costs associated with the absence of it could be highly minimized. Lamm, eat al., (2007) was conducted a research in New Zealand investigated the possible links between OHS intervention and firm performance and productivity and to understand why firms implemented OHS practices within the New Zealand context. The measurement tools available to assess the impact of health and safety on productivity, including absenteeism, presenteeism, short- or long-term disability, as well as defining the increments and gains in health and safety related productivity interventions.

Ward, et al,. (2008) assessed the impact of organisational approaches to occupational safety and health (OSH) management on organisational performance, safety climate, employees' attitudes to the organisation and employees' health and wellbeing. The research was conducted in 31 case study organisations, covering a broad range of company sizes and industrial sectors. At an organisational level, a proactive OSH approach was associated with more positive organisational attitudes and safety climate perceptions. At an individual employee level, more positive safety perceptions and organisational attitudes were associated with better health and wellbeing.

Buhai, et al., (2013) investigates the causal impact of workplace health and safety practices on firm performance, using Danish longitudinal matched employer-employee data, merged with cross-sectional representative firm survey data on work environ-ment conditions. Firms that do not implement certain work environment health and safety quality improvements must have different expected costs associated with enacting such changes compared to .rms that do, costs that are not observed. Agwu, (2012) concludes that incorporation of job hazard analysis at the task level in construction activities will improve management/employees safety practices at work thus enhancing productivity, profitability and loss control. Chandrasekar (2011) presents the analysis of the working environment at different public sector organizations and the research done to understand the performance level of the employees due to the work environment, and also aims at suggesting few interactions to provide better work environment at Public Sector Organisations. It is the quality of the employee's workplace environment that most impacts on their level of motivation and subsequent performance.

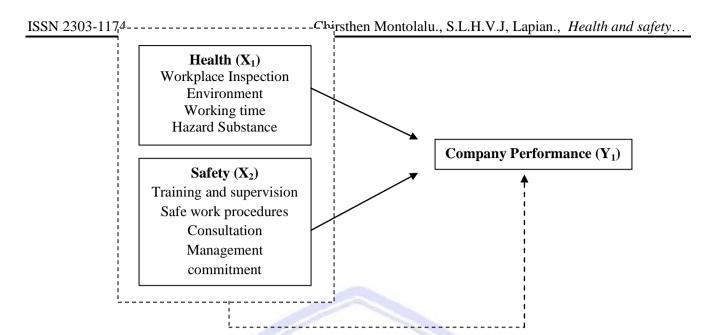


Figure 1. Conceptual Framework
Source: Theoretical Review

## **Research Hypothesis**

The hypothesis for the problem that occurs as follow:

- H<sub>1</sub>: Health and safety management influence company performance simultaneously.
- H<sub>2</sub>: Health influence company performance partially.
- H<sub>3</sub>: Safety influence company performance partially

## **RESEARCH METHOD**

# **Type of Research**

This research is quantitative research and uses causal type of research where it is designed to determine whether one or more variables (e.g., a program or treatment variable) causes or affects one or more outcome variables. In this research will investigate the influence of health and safety on company performance at PT. Leighton Contractors Indonesia.

#### Place and Time of Research

This study will be conducted in Bitung, Likupang start from July to August 2013.

# **Population and Sample**

The target population is the group or the individuals to whom the survey applies. In other words, you seek those groups or individuals who are in a position to answer the questions and to whom the results of the survey apply. Ideally, a target population should be represented as a finite list of all its members (Kitchenham and Pfleeger, 2002).

The sample is describe thoroughly in terms of clinical and demographic characteristics in the methods section of a research article so that others can draw conclusions, apply the results, and compare one investigation with another. It is not the target population, but rather a group of patients or individuals who are actually studied (Kazerooni, 2001).

#### **Data Collection Method**

An appropriate result of this research is made by using two types of data, which is Primary and Secondary data. In this research the type of data that will be used are both of that have been mentioned before. Driscoll (2011) Primary data is particularly useful when you want to learn about a problem that does not have a wealth of published information. This may be because the problem is a recent event or it is something not commonly studied. Primary data is data originated by the researcher specifically to address the research problem. The researcher also gets primary data from the result of questionnaires. Questionnaires are distributed to respondents so they can respond directly on the questionnaire. There were two sections in the questioner in the questioner that should be filled in by the respondents. The first section asked about respondent's identities and the second section asked about things that related with the variables. According to Hinds et al., (1997) cited by Long-Sutehall et al., (2010) secondary data is the use of existing data to find answers to research questions that differ from the questions asked in the original research. The secondary data is taken from books, journals, and relevant literature from library and internet. These secondary data were used in the background, literature review, research method, and discussions.

# **Operational Definition of Research Variable**

Operational definitions used of research variable are:

## Health (X<sub>1</sub>)

Health is the level of functional or metabolic efficiency of a living being. In humans, it is the general condition of a person's mind and body, usually meaning to be free from illness, injury or pain (as in "good health" or "healthy").

# Safety (X<sub>2</sub>)

Safety is the condition of a "steady state" of an organization or place doing what it is supposed to do. "What it is supposed to do" is defined in terms of public codes and standards, associated architectural and engineering designs, corporate vision and mission statements, and operational plans and personnel policies. For any organization, place, or function, large or small, safety is a normative concept. It complies with situation-specific definitions of what is expected and acceptable.

# **Company Performance (Y)**

Organizational Performance has been defined as the ability of an organization to fulfill its mission through sound management, strong governance and a persistent rededication to achieving results. Effective nonprofits are mission-driven, adaptable, customer-focused, entrepreneurial, outcomes oriented and sustainable.

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## **Data Analysis Method**

#### Validity and Reliability Test

Toward questionnaire design conducted is to perform validity and reliability test and to prove the truth of hypothesis and to know the relation rate between variable Y and variable  $X_1$  and  $X_2$ . From the result of research's analysis conducted that questionnaire design with Pearson Product Moment. Alpha Cronbach is reliable coefficients that can indicate how good items in asset have positive correlation one another.

#### **Multiple Regression Analysis Method**

Multiple regression is a statistical technique that simultaneously develops a mathematical relationship between two or more independent variables and an interval-scaled dependent variable. The formula of multiple regression models in this research is shown as follows:

$$Y = \alpha + \beta X_1 + \beta X_2 + \varepsilon$$

# **Classical Assumption**

## Heteroscedasticity

Heteroscedasticity test is a test of whether the regression model of the residual variance occur inequality one observation to another observation. If the one residual observations other observations is fixed, then it is called homoskedastisitas. Conversely if the residual of the obs ervation is different with the other observations, it is called heteroscedasticity (Sekaran, 2003:31).

## **Multicollinearity Test**

Multicollinearity is used to test whether the regression models finds no correlation between the independent variables. If there is a correlation, then there is a problem called multicollinearity. To determine the presence / absence of multicollinearity, variance Inflation Factor (VIF) and Tolerance are used. If the VIF value is less than ten and the value of Tolerance (T) is more than 0.1 and less or equal to 1, meaning there is nt multicollinearity. Conversely, if VIF value ismore than ten and the Tolerance (T) is less than 0.1 and more than 1, meaning there is multicollinearity.

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# **Normality Test**

Normality test aims to test the model regression whether the dependent variable with two independent variables has a normal distribution or not. To test the normality, this research uses the One Sample Kolmogorov Smirnov Test. Basic decision-making is if the 2-tailed > 0.05, the regression model meets assumptions of normality.

## The coefficient of determinant (R2)

The coefficient of determination indicates how much percentage variation in the dependent variable that can be explained by independent variables. R<sup>2</sup> value lies between 0 and 1. The greater the R<sup>2</sup>, the greater the variation of dependent variables which can be explained by independet variables which shows the more precise the regression line in representing the results of the actual research. The coefficient of determination expressed in a certain percentage.

#### **Test partially (t-test)**

This test is intended to determine whether each independent variables partially influence dependent variable or not, by assuming a constant value of independent variables.

#### **Simultaneously (F-test)**

This test is intended to determine whether the independent variables simultaneously influence dependent variable or not.

#### RESULT AND DISCUSSION

#### Result

# Validity and Reliability Test

By comparing correlation index in Pearson Product Moment with significance level of 1%, it can be seen valid or not a research instrument. If probability of correlation is less than 0.01(1%) them the research instrument is stated as valid. The table also shown that Alpha Cronbach is 0.774 which met the requirements of limit of 0.6, in conclusion, the research instrument is reliable.

Table 1. Validity Test

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		X1_1	X1_2	X1_3	X1_4	X1_5	X1_6	X1_7	X1_8	X1_9	X1_1 0	X1_1 1	X1_1 2	TOT _X1
TO TA	Pearson Correlatio	.699**	.645**	.725**	.758**	.792**	.792**	.788**	.781**	.776**	.788**	.699**	.738**	1
L_ X1	n Sig. (1-	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	
	tailed) N	100	100	100	100	100	100	100	100	100	100	100	100	100

<sup>\*\*.</sup> Correlation is significant at the 0.01 level (1-tailed).

Source: SPSS Data Analysis, 2013

**Safety** 

	· ·	X2_1	X2_2	X2_3	X2_4	X2_5	X2_6	X2_7	X2_8	X2_9	X2_1 0	X2_1 1	X2_1 2	TOT _X2
TO TA	Pearson Correlatio n	.679**	.855**	.752**	736**	.855**	.693**	.858**	.781**	.649**	.752**	.858**	.855**	1
X2	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	
	N	100	100	100	100	100	100	100	100	100	100	100	100	100

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Source: SPSS Data Analysis, 2013

Company Performance

Compan	y i errormance		THAN DICK	TC	
		Y_1	Y_2	Y_3	TOT_Y
				AND DESCRIPTION OF THE PERSON NAMED IN	
TOTAL_Y	Sig. (2-tailed)	.000	.000	.000	
	N	100	100	100	100

<sup>\*\*.</sup> Correlation is significant at the 0.01 level (2-tailed).

Source: SPSS Data Analysis, 2013

Table 2. Reliability Test

TT	141	
HAS	alti	1

Health	
Cronbach's	
Alpha	N of Items
.792	13

Source: SPSS Data Analysis, 2013

<sup>\*\*.</sup> Correlation is significant at the 0.01 level (2-tailed).

**Safety** 

Cronbach's Alpha	N of Items
.775	13

Source: SPSS Data Analysis, 2013

**Company Performance** 

O o nin puning in on non	
Cronbach's	
Alpha	N of Items
.814	4
Source: SPSS Data Ar	ialysis, 2013

# **Classical Assumption**

**Table 3. Multicollinearity Test** 

	Model	Colineari	ty Statistics	
		Tolerance	VIF	
1	Health	.062	6.129	
	Safety	.081	7.318	

Source: SPSS Data Analysis, 2013

The tolerance value of health is 0.062 and safety is 0.081, which are more than 0.10. The VIF value of health is 6.129 and safety is 7.318, which are less than 10. The result of the tolerance and VIF value show that this research is free from multicollinearity.

## **Multiple Regression Analysis Method**

**Table 4. Coefficient Beta** 

Model	Unstandard	lized Coefficients	Standardized Coefficients	t	Sig.
	В	Std. Error	Beta		
(Constant)	2.025	T.810 DICK	16	2.499	.014
Health	.291	.078	.259	3.708	.000
Safety	.633	.068	.650	9.329	.000

a. Dependent Variable: Company Performance

Source: SPSS Data Analysis, 2013

The Equation is as follows:

$$Y = 2.025 + 0.291 X_1 + 0.633 X_2 + e$$

The interpretation of multiple linear regression equation above, is follows:

- a. Constant value of 2.025 means that if Health  $(X_1)$  and Safety  $(X_2)$  are ignored, the Company Performance (Y) will be 2.025 point.
- b. Coefficient value of 0.291 means that if Health  $(X_1)$  is increased by one scale or one unit, it will improve Company Performance (Y) at 0.291.
- c. Coefficient value of 0.633 means that if Safety  $(X_2)$  is increased by one scale or one unit, it will improve Company Performance (Y) by 0.633.

Table 5. Coefficient Correlation (r) and (r2)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin- Watson
1	.826 <sup>a</sup>	.682	.675	.775	1.764

- a. Predictors: (Constant), Safety, Health
- b. Dependent Variable: Company Performance

The value of (r) is equal to 0.826 indicating that Health and Safety and Company Performance has strong relationship. r2 will be used  $r^2$  value of 0.682 in this study shows that the contribution of Health and Safety on Company Performance is 68.2% while the remaining 31.8% is affected by other variables which are not examined in this study.

#### **Hypothesis Testing**

Table 6. Simultaneously Test (F-test) ANOVA<sup>b</sup>

Mod	lel	Sum of Squares	df	Mean Square	F	Sig.
1	Regression	124.755	2	62.377	103.881	.000
	Residual	58.245	97	.600	8	
	Total	183.000	99	St. A. Steer, A.	waste to	

- a. Predictors: (Constant), Safety, Health
- b. Dependent Variable: Company Performance

Significant value of  $F_{Count}$  is 0.000. The sig is less than 0.05 which means the confidence of this prediction is above 95% and the probability of this prediction error is below 5% which is 0.000. Therefore  $H_0$  is rejected and  $H_a$  is accepted. Thus, the formulation of the hypothesis that The Influence of Health  $(X_1)$  and Safety  $(X_2)$  influence Company Performance (Y) simultaneously is accepted.

#### **Partially Test**

Can be seen in Table 4, that  $t_{count}$  for Health is 3.708 is greater than the value of  $t_{table}$  (1.984) means that Health has partially significant influence on Company Performance. The sig. value of 0.000 means that prediction of Health influence on Company Performance's errors is 0.00 %. Thus the confidence of this prediction is above 95%. Therefore,  $H_a$  is received.  $t_{count}$  for Safety 9.329 greater than the value of  $t_{table}$  (1.984) means that Safety has partially significant influence on Company Performance. The sig. value of 0.000 means that prediction of Safety influence on Company Performance's errors is 0.00 %. Thus the confidence of this prediction is above 95%. Therefore,  $H_a$  received.

#### **Discussion**

The influences of Health and Safety on Company Performance partially and simultaneously are proven by the interpreting data analysis given by the SPSS. The interpretation shows that all the variables have strong relationship and are supported by significance level.

This research finding is similar with the result of some previous studies conducted by Akpan which is found the existence of significant correlation between effective occupational safety and health policy compliance and sustainable economic growth and development of the organization (Akpan, 2011). The result also shows that the frequent accidents and hazards ultimately decreasing performance become noticeable in such organizations. Company with effective health and safety policy tend to have good corporate image, capable of attracting potential investors and customers. Maintaining effective health and safety management system and

policy in organization can tremendously reduce the occurrence and level of health and safety hazards, as well as costs associated with them. It is important to note that incurring much of such bills and expenses can subject an organization to negative economic and profitability condition, hence decreasing its competitive advantage position in the marketplace.

Another previous research also support the finding in this current research said that there is increasing and compelling evidence that providing a healthy and safe working environment has the potential to increase labour productivity and in turn increase business profits Lamm et al., (2007). But the result also said that there are however, a number of issues that cannot be overlooked, for example what are the negative outcomes, how best to evaluate health and safety measures in terms of increased productivity and are there economic benefits? It is also evident that there are certain necessary ingredients required, such as a good level of cooperation between the management and employees, to ensure the success of a health and safety intervention and the subsequent increases in productivity.

Health and safety play an important role in the company because with a poor health and safety company will suffer a high cost for every accident and damage occurs because of the lack of those aspects. All these cost will bring such a negative consequences on organizations, such as deterring its ability to accomplish set goals and diminishing the competitive advantage position of the firm in the marketplace. By having a good health and safety, company will get so many benefits like reducing cost from the damage equipment because of accident, the insurance fee for those who involve in the accident, improve productivity rates and avoiding the delays on production because of accident and can help in reducing absenteeism and staff turnover also can improve the image of the company itself and the job satisfaction of employees. General conclusion in this research indicates that the variables of health and safety are capable in influencing the company performance at PT. Leighton Contractors Indonesia.

# CONCLUSION AND RECOMMENDATION

#### Conclusion

The conclusions of this study are:

- 1. Health and safety have an influence on company performance based on the Influence Analysis (Beta Analysis)
- 2. Health and safety and company performance have a strong relationship based on the result shown in Coefficient Correlation.
- 3. Health and safety influence the company performance simultaneously and partially. This evidence shows in the Hypothesis Testing, F-test and t-test.

## Recommendations

The recommendation on this research:

- 1. It is better for the management of the company to maintain the employees to keep following the rules of health and safety and if it is able, the company can improve the policy of health and safety. The better the health and safety in company the better the performance.
- 2. Although the study shows a good result, company still need to upgrade and followed up all the employees by giving the training and simulation about health and safety also give an update about health and safety issues that happened in the entire site around the world. This will keep the aware of the important of health and safety.
- 3. The management also should give more attention about the issues of health and safety that the employees complain about. This will maintain a good relationship between company and its own employees. A good relationship could give a lot of benefit for the company itself.

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