# Influence Of Physical Work Environment Factors, Equipment And Materials On Occupational Health And Safety In Ahass City Workshop Poor

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**Abstract:** In operate activity – activity his business, company must capable utilise source Power in the company. Wrong one of the most important aspects of resources within the company is the source Power man Which works as wheel drier activity company. One of the factors that can form satisfaction Work is the existence of guarantees and conditions Work Which comfortable for member organization. And K3 is wrong One factor Which can influence satisfaction Work.

Keywords: Activities, Business, Health, Organization

# **INTRODUCTION**

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ACCESS

In operate activity – activity his business, company must capable utilise source Power in the company. Wrong one of the most important aspects of resources within the company is the source Power man Which works as wheel drier activity company. One of the factors that can form satisfaction Work is the existence of guarantees and conditions Work Which comfortable for member organization. And K3 is wrong One factor Which can influence satisfaction Work (Indrawati et al, 2017).

Condition Work Which bad potential cause accident Work, easy Sick, stress, difficult concentrate so causing a decrease in productivity Work.

Condition Work covers variable physique like distribution O'clock Work, temperature, lighting, voice, And characteristic features architecture place Work environment Work Which not enough comfortable, for example : hot, noisy, circulation air less, less clean, result worker easy stress.

The benefits of the work environment are creating passion for work, so productivity And performance Work increase, besides That environment Work Also can influential to satisfaction Work employee, matter This was found (Siagian 2014).

Job satisfaction can be interpreted as feeling satisfied Which acquired at work, both in matter burden Work, environment or condition Work, connection with colleague Work And compensation. Satisfaction Work difficult defined because satisfaction is not a state Which still but can influenced And changed by powers Good from in nor from outside (Puspitawati & Riana, 2014).

In this regard, author observe that aspect equipment Which used in Workshop Ahss Son Jaya Poor, Enough experience potency emergence problem in process the workmanship. As company Which come into contact with many materials material Which own temperature tall And machines, worker the own risk danger safety And health Work. Besides material standard And equipment heavy, Of course just Lots worker Which have to deal with work Which involve machine Which Also potential result injury consequence pinched machine And caught temperature hot from machine. These conditions are sufficient describe how work environment faced by worker keep a number potency problem for Safety And Health Work.

Work accidents can occur from various sources of problems, both with regard to humans error (error consequence man) or reason factors from outside the individual, such as the environment, equipment, nor characteristics that job did it. By Because That need for company And employees who work in it For control factors reason disturbance on

safety And health Work. The usual factors cause disturbance on safety And health Work normal originate from circumstances in environment Work, start from aspect temperature air, lighting, equipment work, down to physical condition and mentally the worker Alone.

Implementation of Safety and Occupational Health (K3) is wrong One form effort For create place Work Which safe, Healthy, free from pollution environment, so that can reduce or free from work accidents and resulting illnesses Work Which on Finally can increase efficiency And productivity Work. In accordance with regulation government Which has arrange obligation company to worker in form laws that guarantee rights as well as internal labor obligations matter protection. Constitution No. 13 Year 2003 About

Labor has arranged clearly regarding rights obligations on safety and health Work, ie on chapter 86 where it says that every workers have the right to get protection safety And health Work through program K3 Which integrated on the management system company. With base This there is a legal obligation to fulfillment of Safety and Occupational Health (K3) in the company. With regulations in place , so each party must comply and implement it as well as possible, because every consequence every law invite is exists penalty for each party violate, in accordance with weight the violation. Company must create code Work Which Healthy And Happy, whereas employee even must obey every rule about safety Work And

occupational health. Based on the description In the background above, the author mean For analyze variables environment Work physique, equipment Work And material Which used which may cause disturbance on Safety And Health Work.

From all the explanations above arise Lots question about How factor environment physique Work, equipment And material to safety And health Work in workshop. By Therefore, more research was carried out carry on with take title " Influence of Physical Environmental Factors Work, Equipment And Material To Safety And Health Work In Workshop Ahss city Poor."

Formulation of the problem

Based on background behind above, then the problem formulation is will studied by

researcher is as following :

- 1. How influence factor environment physique Work to occupational Health and Safety in City Workshop Poor.
- 2. How influence factor equipment to safety And health Work in Workshop Malang city.
- 3. How influence factor material to safety And health Work in Workshop Ahass City Poor.
- 4. How influence factor environment physique Work, Equipment and materials against occupational Health and Safety in City Workshop Poor.

#### **OVERVIEW REFERENCES**

Understanding the Physical Work Environment The physical work environment can bebecome Wrong One factor trigger decrease and increase productivity Work employee if No arranged like that appearance For give birth to atmosphere comfortable in Work Of course can impact on employee work productivity. The physical work environment is all circumstances shaped physique Which located around the workplace can influence employee Good in a way direct nor No direct (S edarmayanti 2011:26).

Environment physique Work as everything that is around para worker Which can influence himself in operate tasks Which charged, for example lighting, air temperature, space, safety, cleanliness, music And etc (Nitisemito (Gienardy, 2013: 13).

The physical work environment is bunch factor physique And is a physical atmosphere There is in something place Work (Norianggono 2014:3).

From a number of opinion on it can be concluded that the environment physique Work is environment Which felt by employees physically or seen And influence employee the in operate his job in carry out work or effectiveness.

#### **Understanding Equipment**

Work equipment is an object which very required the situation For lighten up burden power Work pd something company by Because That the condition must in pay attention and maintain it properly Good For ensure equipment in circumstances worthy for in operate, if No so can cause accident Work akbat equipment Work which No worthy (hidayatullah, 2016).

#### **Understanding Material**

Material is something Which arranged or made by material (Callister & William, 2006). Understanding material is material standard Which processed company industry can be obtained from local purchases, import or processing Which done Alone (Mulyadi, 2000). From a number of understanding the, can concluded that material is as a number of material which is used to make something more finished products or goods beneficial.

Room Scope Management The first material is Planning And Control Material. Material Which needed will be planned and controlled based on Sales Forecast or Sales Estimates and Production Planning (Production planning). Planning And This Material Control involves Estimated needs for each material, prepare budget material, predict level supply, schedule booking material And do monitoring its performance Which relate with production And sale. (Mulyadi, 2000).

## **Understanding Health Work**

Health Work in a way general can interpreted as condition Where worker always Healthy without There is matter Which cause disease, injury or damage to members body during is at in in environment Work, whereas according to (Kuswana 2014: 23) in his book mention health work is a state of being worker Which free from 9 disturbance physique And mentally consequence influence interaction work And the environment. Health Work is something condition health Which aim so that the working community obtain degrees health as high as possible, Good physical, spiritual, nor social, with business prevention And treatment to disease or disturbance health Which caused by worker And environment Work nor disease general" (Buntarto, 2015: 4).

Health Work is something circumstances Which safe And Happy from suffering And damage as well as losses at work, both on moment use tool, material, machine- machine in process processing,

Technique packing, storage, nor guard And secure place as well as environment Work" (Kuswana, 2014: 22).

Health Work showing on condition Which free from physical, mental, emotional or disorders flavor Sick Which caused by work environment. Health risks is factors in environment Work Which Work exceed period Which time Which determined, environment Which can make stress emotion or disturbance physique" (Mangkunegara, 2004: 161).

From definition in on can concluded that occupational health is something circumstances Which safe And Happy as well as free from disturbance physique, mental, emotion And flavor sick Which caused by environment Work as well as objective from health Work so that society worker obtain degrees health as high as possible.

#### **Understanding Safety Work**

General work safety own meaning Happy in do any work and Happy from danger accident Work Which result injury And disability permanent on worker Which cause loss for workers and companies, meanwhile according to (Mangkunegara 2004: 161) Safety Work showing on conditions that are safe or safe from suffering, damage or loss in place Work.

Safety Work is something circumstances spared from danger during do work. Work safety is one of them factors that must be carried out during Work. There's no one even in the world wants it to happen accident. Safety Work very depend on type, form And environment in where work That held (Buntarto, 2015:1).

#### Safety Work is safety Which related with

Machine, aircraft tool Work, material And process management, base place Work And the environment as well as ways do work. Target safety Work is all workplaces, whether on land, in in land, in surface water, nor in air (Suwardi And Daryanto, 2018:1).

From definition in on can concluded that safety work is safety relate with equipment, workplace and environment as well spared from danger Which cause suffering, damage or loss during is at in the environment Work.

#### **Understanding Health And Safety Work**

Occupational health (Health) is something circumstances a worker Which free from disturbance physique And mentally as consequence influence work interactions and the environment (Kuswana, 2014). Health Work is specialization knowledge health/medicine along with practice Which aim so that workers/community obtain highest degree of health, whether physical, or mental or social with business preventive And curative to disease/disorder health Which caused factor- factor work And environment Work as well as to diseases general (Santoso, 2012).

Work safety (Safety). circumstances Which safe And Happy from suffering And damage as well as losses at work, both on moment use tool, material, machine- machine in process processing, technique packing, storage, nor guard And secure place as well as environment Work (Kuswana, 2014).

Health And safety Work is an effort and effort to create protection And security from risk accident And danger Good physique, mentally nor emotion to worker, company, public And environment, as well as concerning various elements and parties (Sucipto, 2014). According to (Ridley And John 1983), defines K3 as a healthy working conditions And safe Good That for his job, company nor for public And environment around the workplace (Triwibowo & Pusphandani, 2013).

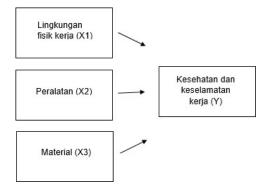
#### **Understanding Workshop**

A workshop is a business types of small and medium entrepreneurship Which move in field service service repair, Good That bicycle motorbike or car (Yoga 2013).

Business workshop bicycle motorcycle is business Which do motorbike repairs so you can back to working properly with desire owner or form original from bicycle motorcycle the (Yuda, 2015).

## Framework Framework Conceptual

Framework conceptual is a relationship between one concept with draft other Which support For researched as important problem. This research title "Influence Factor Environment Physique Work, Equipment, And Materials for Safety And Health Work In Workshop Ahss Son Jaya Poor". Based on descriptions and explanations be delivered chapter previously several expert opinions were then withdrawn conclusion And made framework conceptual as following:



# **Picture Framework Conceptual**

Information :

( ) : Conjecture influence simultaneously Factor (X) → : Independent
Factor (Y) : Dependent

From information conceptual the so study This using linear regression analysis simple Because use One variable independent (X) And one variable (Y).

Environment physique Work can become Wrong One factor trigger decline And enhancement productivity Work employee if No arranged like that appearance For creates a comfortable atmosphere inside Work Of course can impact on employee work productivity. With optimization equipment, so We No need waste of time and energy Which Lots For do every job there is, besides that work will accomplished with effective And efficient. Material is as a number of material Which made For make something more finished products or goods beneficial.

Health, safety And security Work is effort protection for power work/workers so that always in stay healthy and safe throughout Work in place Work. Safety Work can interpreted as circumstances spared from danger during do work. In other words, work safety is Wrong One factor Which should be done during Work.

## Framework

The framework of thinking is basic thinking from study Which adjusted to the facts. This research aim For know influence fact environment physique Work, equipment And material to safety And health Work in workshop ahass son victorious Poor. By systematic, framework think in study This can depicted as following



# Figure Framework of thought Hypothesis

In this research, the general hypothesis Which submitted is as following:

H1 : Allegedly environment physique Work influential positive to safety And health Work.

H2: Suspected equipment has an influence positive to safety And health Work.

H3 : Allegedly material influential positively towards safety And health Work.

## **RESEARCH METHODS TYPES OF RESEARCH**

Method study Which used is method study descriptive with approach quantitative. Sugiyono (2012: 13) explain that study descriptive that is, study Which done For know mark variable independent, Good One variable or more (independent) without make comparison, or connecting with other variables. Where study This predict How influence environment physique Work, equipment And material on health and safety Work moment do activities at ahass workshops in the city Poor.

# Type Data

According to Sugiyono (2013:13) method study quantitative is a research method based on philosophy positive, Which used for research population or sample certain, technique sampling in general done in a way random, collection data use instrument study, analysis data nature quantitative or statistics with objective For test hypothesis Which has set. Type data quantitative based on factor environment physique Work to health And safety Work. Then will can searching for his presentation.

#### Data Source

Understanding source data according to Arikunto (2013:172) is The data sources referred to in research is the subject from which data can be obtained and determined method data collection beside type data Which has made in advance.

## **Primary Data**

According to Sugiyono (2019:194) data primary is source data Which direct provide data to data collector.Technique collection data primary Which obtained in this research direct through charging questionnaire with spread questionnaire to workers in the workshop ahass son Jaya Malang.

## **Secondary Data**

According to Sugiyono (2018:456) data secondary that is source data Which No direct give data to collector data, for example through other people or passing by document. In this research that become source data secondary is book, journal, article Which related with topic study about quality service to satisfaction customer.

#### **Studies Field**

According to Sunyoto (2013:22), understanding studies field is Field study is a method carried out by researchers with direct observation of activity Which done by company.

In research field study This, writer do study direct on worker in workshop ahass son victorious Poor For obtain related data with study This. Data Which obtained will be analyzed use test statistics so that found fact from each each variable X (independent) Which consists from Environment physique Work (X 1), Equipment (X 2), Material (X 3), to variable Y (dependent) that is Health And safety Work.

#### **Questionnaire (Questionnaire)**

According to Widoyoko (2016:33) questionnaire (questionnaire) is method collection data Which done with method give set statement or question written to respondents For given response in accordance with request user.

Study This use questionnaire or questionnaire, .Because method This used For obtain data about perception

from respondents. Which is in the form of a list question Which made in a way structured with form question in accordance variable study, that is variable X (independent) Which consists from Physical work environment (X 1), Equipment (X 2), Material (X 3), to variables Y (dependent), namely Health and safety Work.

#### **Studies Literature**

Studies Literature according to Sugiyono (2017:291) is step Which important Where after a researcher determines a topic study, step furthermore is to conduct theoretical studies and reference Which related with study Which done.

With this research use studies literature form book, journal, article Which related with research topic.

## **Tool Analysis**

Analysis Which used in This research is a correlation analysis. Where analysis correlation that is look for connection between environment physique Work, equipment, And material Which influential to occupational health and safety in workshop ahass in city Poor.

# **Population And Sample**

Population according to Sugiyono (2011:80) is region generalization consisting of objects or subject Which have quantity And characteristics certain determined by researchers for studied And Then withdrawn the conclusion. Population Which used as study that is Employees at Ahass City Workshop Poor.

Sample according to Sugiyono (2015:73) is part from number and characteristics possessed by that population. If population large, and research is impossible learn everything there is population, for example limitations fund, power And time so study can use sample taken from population.

# **Test Validity**

According to Sugiyono (2017:125) test validity that is show degrees accuracy between data Which actually happen on object with data collected by researcher. Test validity This done to measure whether the data is has obtained after study is data Which valid or No, with use tool measure that used (questionnaire).

#### **Test Reliability**

According to Sugiyono (2017:130) state that test reliability is so far where results measurement with use object Which The same, will produce data Which The same. To find out what a measuring instrument is reliable can tested with use formula Alpha

## **Analysis Linear Regression Multiple**

According to Sugiyono (2017:275) analysis regression linear multiple used from researchers, if researchers predict How down rising circumstances variable depend (criterion), If two whatever more variable independent the as factor predictok lowered raise it value (manipulate). Multiple regression analysis was performed if the number of independent variables the minimum namely 2.

## **Equality Regression Linear Multiple**

Writer in do study This use equality regression linear multiple caused amount from variable free in this research is more than One. Equality regression linear multiple according to Sugiyono (2017:275).

# **Test Hypothesis**

Hypothesis is conjecture or an assumption about something that is made to explain things and be demanded For do checking. Hypothesis statistics that is If on conjecture or assumption the specialized on population, that is generally about mark parameter population.

# Test Coefficient Determination (R 2)

According to Ghozali (2012:97) in explained variation variable dependent, tool For measure how much Far ability The model is the coefficient of determination (R 2). Between zero or One is mark coefficient determination. Ability variable independent in explain variation dependent Very limited is the R2 value small. And on the contrary, variable independent give almost all information Which needed For assumption variable dependent that is If mark Which approach 1.

# Test Persian ("T" Test)

Test significance individual Also called the t statistical test. In This test will show how much far influence of the independent variable in a way Partial to variable independent the.

## Simultaneous Test (Test "F")

Test this to see if it's on variable independent in a way simultaneously have influence Which significant on variable dependent.

## **Test Assumptions Classic**

According to Sunjoyo, et al (2013:54) with linear regression analysis multiple Which use base Ordinary Least Square (OLS) is condition statistics Which must fulfilled. Before do hypothesis testing ,conditions that must done that is test assumption classic. Test assumption classic That Alone consisting of normality test,test multicollinearity, heteroscedasticity test And autocorrelation test.

#### **Test Normality**

According to Sunjoyo, et al (2013:59) that test normality This can carried out using tests histogram, normal P Plot test, Chi test Square, Skewness and Kurtosis or called test Kolmogorov Smirnov. For see test normality This aim is mark the residual distributed normal or No. Own mark residuals Which distributed normal is mode good regression. So test for normality No only done on each each variable will but Also on mark the residual.

#### **Test Multicollinearity**

For see exists correlation or No that is with use test Multicollinearity, Which tall from between variable- independent variable in a model regression linear multiple. Connection between variable free with variable bound become disturbed, If There is Wrong One correlation Which tall between variable- variable free the.

## **Test Aucorrelation**

According to Sunjoyo (2013:73) for see is happen correlation between something period t with period previous (t-1) is the goal autocorrelation test. Regression analysis ie For see is influence between variable bound to independent variable, so there cannot be any observation between correlation with use data observation previously. Test This No need done on data cross sections And only can done on data coherent time ( time series ).

#### **Test Heteroscedasticity**

According to Sunjoyo (2013:69) for see is there is there is inequality of variance of residuals One to observations other is objective test heteroscedasticity. Condition Which fulfil from model regression that is homoscedasticity, Which Where there is similarity variance from residuals One observation to observation other still. Method scatter plots For detect heteroscedasticity is can done by plotting the values ZPRED (predicted value) with value SRESID (residual value). Collect in the middle, narrowed Then widened or on the contrary widened then narrowing it constitutes model Which Good For obtained if there is no specific pattern on chart.

# **PRESENTATION DATA**

Location in study This held in Workshop Ahss Son Jaya Malang whose address is at Jl. Temple Stage West. No. 3, AWATULWULUNG. District Lowokwaru, Malang City, East Java 65143 and in Workshop Ahss Friends Motorcycle Poor Which address in Jl. Galunggung No.47, Ivory Kasri, District Klojen, City Poor, Java East 65115 Reason election location study in workshop Ahss in Unfortunate because it is at the research site This, I as researcher feel understand the location and be sure can provide the right solution For problem Which will researched. Study This expected can be taken into consideration For repair system health and work safety on employees in workshop Ahss.



#### **Time Study**

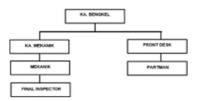
Time during which the research was carried out in a way gradually started with observation, determine title, collection data, analysis data, processing data And preparation report during 6 month that is starting from January until month June 2022.



#### **Description Study**

Activity study This started with observation, look for object study For determine problem Which related with study. After find problem object survey done spread questionnaire For obtain data Which required For compile report proposal. After obtain data, next with collection study literature Which related with title study to continue writing the report proposals, Then use method study quantitative For analyze data And interesting conclusions from research that has been done resolved.

#### **Structure Organization**



From structure organization the the one at Ahass Malang, you can explained as following :

- Head of Workshop: Leads operations workshop in accordance with regulation And agreement Which has set.
- Ka. Mechanic : Head mechanic in charge of organizing and coordinate mechanic in do work, Besides That, also controls various complaints customer about service Which done by mechanic.
- **Mechanic :** Responsible answer in process build, nurse, until repair (repair) machine use equipment special. Mechanic No must control all three. However, usually mechanic expert Already own understanding about three procedure.

- Finals Inspector : Responsible answer on checking from results work carried out by para mechanic. Matter this is very important because to look after image workshop to Public And He Work Together With Frontman (service advisor) And Chief mechanic.
- Front Desk : On duty accept go out enter customer Which come to do various type of service in the workshop. Officer front desk hopefully friendly And good at communicating well. so that customer with various type background behind will feel like.
- Partman: Serves part sales And oil Good sale in a way direct nor sale through service.

#### **RESULTS AND DISCUSSION CHARACTERISTICS RESPONDENT**

Characteristics respondents is the criteria that will be given to research respondents so that source information Which There is on study the can focused in accordance hope And appropriate. Characteristics respondents This useful For give description information you want to know from circumstances self respondents Which become sample in study This.

#### **Characteristics Domicile**

From table output on, on study This use respondents as much 50 from Employee ahass in Poor. If seen from table on, employee Which domiciled in Poor that is as much 100%.

#### **Characteristics Type Sex**

From table output on, respondents with type sex men as much as 54% and for respondents manifold sex women as much as 46%. So, from results analysis table output on, Can seen employee in workshop ahhh in Poor more Lots employee man.

# **Characteristics Age**

From the output table above, sample Which taken that is as much 50 respondents from Employee ahass son victorious And ahass friends motorbike in the city of Malang. There are 4 grouping age with obtained results that Which most much of it is based on age 17-20 year as much 32%, then at the age of 21-30 years as much 68%.

#### Data analysis Test Validity

From table on, there is 4 variable Which become material study. If results from R count  $\geq$  R table (in test 2 side Which significant 0.05) so instrument or items question correlated significant against the total and declared scores valid. For look for R table so use provision formula R table = df (N-2, 0.05), with N that is number of data samples tested. From provision R table the, so produce df that is as big as 98 And For mark R table use significance test two direction, with significance 0.05 so R table Which used is 0.279. From the results analysis table on, on every variable with results R count Which generated is greater than the table R value namely 0.279. With this data Which has found, can stated valid.

# **Test Reliability**

# Test Reliability Environment Physique Work, Equipment And Material To Safety And Occupational Health

From table output on, can it is known that there are N of Items viz the number of questionnaire question items or questionnaire there are 17 items and obtained mark Cronbach's Alpha that is as big as 0.876. Due mark Cronbach's Alpha as big as 0.876 > 0.60, so as base taking decision in test reliability the, can concluded that of all the question items questionnaire on the physical work environment, equipment And material to health And safety Work can said reliable or Can called consistent.

# Analysis Linear Regression Multiple

From table output on, give information about variable study as well as method Which used in analysis regression. Variable independent Which used is variable X1,X2,and X3. Meanwhile for the dependent variable Which used that is Y. Analysis regression This that is use method enter, Where variable in nothing was thrown away from this research, so that on column variables removed becomes empty or not There is the numbers.

# **Test Hypothesis**

On testing hypothesis This There are 3 tests, including the test coefficient of determination, F test and t test with based on level significance general that is as big as 0.05.use it 5-6 day in

# **Test Assumptions Classic**

Test assumption classic This used to test whether the data is which is tested in the regression model and variable bully or residuals own distribution Which normal.

# **CLOSING CONCLUSION**

Based on from analysis data And results study Which title "Influence Factor Environment Physique Work, Equipment And Material To Health And Work Safety in the Ahass Workshop city Poor", so can concluded as following :

- 1. Most of the workers are mechanical workshop own knowledge danger And risk Which Enough to Health And Safety Work (K3).
- 2. Worker mechanic complete in wear PPE frequently use part big a week.
- 3. Workers have rights get protection on safety at work For well-being his life during do his job.
- 4. There is a relationship between the environment physique Work to health And safety Work in workshop ahass Malang city.
- 5. There is connection between equipment to health And safety Work in workshop ahass Malang city.
- 6. There is connection between material to health And safety Work in workshop ahass Malang city.

#### SUGGESTION

Circulate study Which has done with results Which has found, then suggestions can be made given is as following :

## 1. For Institution

For Workshop Ahss Son Jaya And Ahss Friends Motorcycle expected Can become material considerations for safety And health Work for para employee Which Work so No happen accident Work. Apart from that, it can be improved further For every employee own knowledge Which Enough to Health And Safety Work (K3) as well as power Work entitled get top protection safety at work For well-being his life during do his job.

#### 2. For Researcher Furthermore

For Researcher furthermore expected can more develop theory from various source sake add insight and knowledge deeper and more accessible understand about safety And health Work (K3).

#### 3. For Reader

It is hoped that readers will be able to made reference Which will do college assignments, assignments end or thesis And can applied by readers are students, public general as well as can add outlook And information for audience general.

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