

The Influence of Occupational Health and Safety Training on the Safety Behavior of the Cleaning Service Workers (A Case Study at PT WIS)

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ABSTRACT

Occupational Health and Safety (K3) is one of the basic rights of every worker in the world. This study was aimed at examining how the K3 training provided by PT Werbel Indonesia Services (WIS) Malang influenced safe working behavior especially on cleaning service activities. The sample was 214 people using the cluster sampling method from 24 places in Malang. The data was collected by online questionnaires and conducted interviews with the director of PT WIS Malang. The data was analyzed using descriptive analysis and inferential statistical analysis using SPSS version 24. The hypothesis was tested using normality tests, heteroscedasticity tests and simple linear regression analysis. All items used in this questionnaire were valid and reliable. The respondent's answers were normally distributed and also there wasn't heteroscedasticity. The variable of K3 Training was able to influence the Safe Attitude Behavior at Work with an amount of 48%. The rest was the contribution from other variables that might not have been accommodated in this study. Researchers suggested that PT WIS should continue to provide training for cleaning services, especially to test the competence of workers in mastering their work that is related to the risks of work which they face.

Keywords: *Occupational Health and Safety Training, Work Safely, Cleaning Service*

1. Introduction

Cleaning work is public work that is carried out in almost all sectors and workplaces, both outdoors and indoors, as well as both in private companies and in public places.(Brun, 2009). Most of this cleaning work is done as contract labor where cleaners are employed by a cleaning service provider company but they work in one or more locations. The workforce is dominated by full time workers (77%) and some work part time (23%).

In order to understand the working conditions of the cleaning sector in relation to the occupational safety and health of employees, it is very important to consider the socio-economic context in which the sector operates (Brun, 2009). The cleaning sector is under constant competitive pressure as is the burden of cutting costs from their customers regarding quality of work and working hours. This causes some workers to be faced with a situation where cleaning workers work in apprehensive work locations, and often cleaning workers are not equipped with knowledge about their rights regarding occupational health and safety. In addition, cleaning workers often lack the training, equipment and information to do their job in the best possible healthy and safe way.

Occupational health and safety (K3) is one of the basic rights of every worker in the world (Dejanović and Heleta, 2016). A safe and healthy work environment from a physical,

mental and social perspective allows workers to carry out productive work and lives. Therefore, K3 focuses on minimizing work-related injuries and illnesses by conducting an assessment of work methods in accordance with the general rules that apply.

In fact, work accidents Generally caused by 2 factors The main reason is unsafe behavior (*unsafe action*) and *work environment* not safe (unsafe conditions). *Andodo et al., (2015)* say 85% of accidents are contributions from unsafe behavior (*Unsafe action*). *Leader* workplace management and workers must make real work safety and health efforts to prevent work accidents. Efforts to control work accidents can be carried out by increasing safety behavior in workers. One of the efforts that can be made to increase the knowledge and attitude of safety in working for workers is through an education and training approach (Fassa and Rostiyanti, 2020).

PT Werbel Indonesia Services (PT WIS) is a cleaning service provider company that has a coverage area covering Malang City and Batu City. Many holding companies have entrusted the management of environmental cleanliness to PT WIS such as Brawijaya University, Malang Town Square, Olympic Garden Mall and various other office agencies such as the Directorate General of Taxes KPP North Malang and related agencies. Before being placed in a company or agency that requires cleaning services, PT WIS also equips all workers with standardized K3 education. This research was conducted to find out how influential the K3 training provided by PT WIS was in creating safe work behavior, especially for cleaning service personnel. Based on the above background exposure.

Based on the background above, the formulation of the problem is whether there is an influence between the OHS training variable on the behavior variable of working safely at PT WIS workers, Malang City. The scope of this research is limited to special OSH training for workers in the cleaning sector. The purpose of this limitation is so that in writing theory and making questionnaires there is no bias with OSH training in general. The purpose of this study was to test and analyze the effect of OSH training on safe work behavior, especially in the context of cleaning workers at PT WIS Malang City.

2. Literature Review

Occupational Health and Safety Training

Winder and Gardner, (1999) stated that currently all business organizations are not only concentrating on increasing work productivity, but it is hoped that the organization will be able to focus on three keys to sustainable business development, including: quality of work, development of occupational health and safety programs, and paying attention to all issues related to working conditions. surrounding environment. In essence, training on occupational health and safety is a right for employees that is regulated in laws that guarantee OSH in a country. OHS training can increase worker competence regarding safe standards for carrying out routine activities both within the office and in the fabrication environment.

Safe attitude at work

Dejanović and Heleta (2016) defines a safe work attitude as the result of accumulated knowledge gained by workers regarding three types of activities, namely identification of all activities that could potentially create a hazard, work management with the lowest possible risk probability, and understanding of applicable work rules or procedures.

The Importance of K3 Training

Winder and Gardner, (1999) suggest that currently all business organizations are not only concentrating on increasing work productivity, but it is hoped that the organization will be able to focus on three keys to sustainable business development, including: quality of work, development of occupational health and safety programs, and pay attention to all issues related to the condition of the surrounding environment. He explained that in essence the training is about health and work safety are rights for employees that are regulated in laws that guarantee K3 in a country. OHS training can increase worker competence regarding safe standards for carrying out routine activities both within the office and in the fabrication environment. Furthermore, Winder and Gardner (1999) also explained that the objectives of implementing standardized OSH training for workers include the following:

- a) To build an occupational health and safety management system that is based on the knowledge and competencies possessed by workers in an organization.
- b) To provide knowledge to workers regarding both national and international regulations regarding OSH, as well as provide additional knowledge about risk-based work management.
- c) To test the competence of workers about how reliable they are in mastering a job, especially related to the work risks they face.
- d) To provide a portfolio in building corporate image and valuation in the global community (zero accident / low waste predicate).
- e) To build a work culture for employees to be able to work safely, effectively and use resources efficiently.

3. Methodology

This research uses explanatory research with a quantitative approach, namely research that explains causation between two or more research variable concepts. (Sekaran and Bougie, 2016). This research was conducted on cleaning service workers from PT WIS Malang. The research locations were spread across 24 placement locations in Malang City and Batu City which are described in the following sample sub-chapters.

Population

The population in this study were cleaning service employees at PT WIS Malang and were placed in 24 work placement areas in Malang City and Batu City with a total of 480 workers.

Sample

The sample size in this study was 214 respondents who were calculated using the Krejcie and Morgan (1975) method. The total sample size can be seen in table 3.1 below:

Table 3.1 Determination of the Sample with the Krejcie Morgan Method

No	Population	Sample
1	440	205
2	460	210
3	480	214

Source: Krejcie and Morgan, (1970)

In taking samples, researchers used non-probability sampling with cluster sampling category. Kuncoro (2013) explained that cluster sampling is a sampling method by dividing the population into several sub-groups based on simple criteria or available in the data. The researcher divided the sub groups into equal numbers. Based on this understanding, the research sample clusters are as follows:

Table 3.2 Distribution of Research Samples

No	Location	Amount
1	Brawijaya Souvenir Center	1
2	State University of Malang	4
3	Public Corporation Jasa Tirta I	4
4	Faculty of Engineering, University of Brawijaya	23
5	Faculty of Economics, University of Brawijaya	6
6	Faculty of Administrative Sciences, University of Brawijaya	16
7	Indogrosir Breadfruit	7
8	UIN Maulana Malik Ibrahim, Batu Campus	9
9	UIN Maulana Malik Ibrahim Malang Campus	14
10	IPD Saiful Anwar Hospital Malang	8
11	Faculty of Computer Science, University of Brawijaya	13
12	Dinoyo City Mall	7
13	Villa GG Batu	4
14	Faculty of Medicine, Brawijaya University	17
15	Malang Indie Park	3
16	Honda Branch Breadfruit Malang	2
17	Graphics Vocational School (SMKN 4 Malang)	7
18	Brawijaya University Rectorate Building	18
19	Plaza Araya	6
20	KDS Araya Restaurant	6
21	Daihatsu Jolo Malang	9
22	Malang TownSquare	16
23	Town Square Stone	10
24	Auto 2000 Breadfruit Malang	4
Amount		214

Source: Data Processed 2021

In this study the independent variable is K3 training while the dependent variable is the attitude of working safely. In explaining the operational definition of the variable, the researcher adopts the theory put forward by Brun (2009) about K3 training for cleaning

workers and the theory put forward by Dejanović and Heleta, (2016) to explain safe work attitudes to cleaning workers. Variable operationalization includes the following:

- A. K3(X) Training Variable, consisting of five indicators including:**
- a) Knowledge of hazardous chemicals and liquids
 - b) Knowledge about self protection management,
 - c) knowledge of hazardous energy management,
 - d) knowledge of preventive measures in preventing falls,
 - e) Knowledge of freight transport
- B. Attitude to Work Safely (Y), divided into three indicators including:**
- a) Identify all activities that could potentially create a hazard.
 - b) Work management with the lowest possible risk probability.
 - c) Understanding of applicable work rules or procedures.

Method Of Data Collections

The data used in this study is primary data collected using a questionnaire. Sugiyono (2014) explains that a questionnaire or questionnaire is a data collection technique that is carried out by giving a set of questions or written statements to respondents to answer. In this study the questionnaire consisted of 28 questions (19 questions on the X variable and 9 on the Y variable) and used a 5-point Likert scale as a measurement scale. Questionnaires were given to respondents online and can be accessed on the following page: <https://docs.google.com/forms/d/1TI77COZv8TA4GHFGZahNZGBXtbV-sOu7jOCTpRdN9q4/>. The number of questionnaires collected in this study exceeded the specified number of 223 questionnaires and from these questionnaires there were 9 questionnaires that eliminated data. So, the total data used as primary data in this study amounted to 214 questionnaires.

Data analysis method

Data analysis used in this study was descriptive analysis to explain the demographic profile of respondents such as gender, age and last level of education and inferential statistical analysis was used to test the effect of OSH Training on Safe Work Attitudes. Statistical analysis was performed using SPSS for Windows Version 24 including validity and reliability tests, heteroscedasticity tests, normality tests, autocorrelation tests and simple linear regression tests.

4. Results

Brief Profile of PT WIS Malang

PT Werbel Indonesia Services (PT WIS) is a company that was established and specifically designed to serve the needs of corporate organizations. Located at Jalan Bronze Utara Number 3 Malang, PT WIS provides services that are Integrated Business Support Services which are expected to be used as an alternative in implementing Management policies or strategies so that customer companies can "focus more" on "main and strategic" matters to accelerate organizational growth. Benefits and added value from implementing Integrated Business Support Services include the following:

- a) Customers get integrated services.
- b) Cost Effectiveness.
- c) Service Speed and Flexibility.
- d) Detail Supervision and Accurate Monitor System.
- e) Synergy with Stakeholders.

PT WIS is supported by professional staff and practitioners who are experts in their fields, high-reliability; have a noble mindset, experience, knowledge, skills, high integrity and extraordinary enthusiasm. PT WIS concentrates on six main business services, namely in the areas of Customer Services, Cleaning Services, Property Maintenance Services, Sales & Marketing Services, People Management Support Services and Training Program Services.

Respondent Demographics

The identity of the respondent is used to determine the characteristics of the respondents who have participated in this study. Respondents who were collected after the data distribution activities were carried out were 214 respondents. These characteristics are viewed from three things, namely gender, age, and level of education. The following is a description of the characteristics of the respondents studied:

Table 4.1 Description of Respondents by Gender

Gender	Respondents	%
Man	194	90.65
Woman	20	9.35
Amount	214	100

Source: Primary Data, processed in 2021

Thus we can know that most of the respondents studied were male. This is because the main activity of the PT WIS business entity is in the field of cleaning services which requires a workforce that has high physical endurance and has the technical ability to support building maintenance. The presence of female workers as respondents in this study were respondents who were placed in areas that had a low work risk such as restaurant buildings and souvenir center buildings. Next, we will explain the description of respondents based on age in table 4.2 below:

Table 4.2 Description of Respondents by Age of Respondents.

Age (Years)	Amount	
	Respondents	%
21-30 yrs	187	87,39
31-40 yrs	27	12.61
Total	214	100

Source: Primary Data, processed in 2021

Thus it can be seen that most of the PT WIS respondents studied were young employees. International Labor Organization or ILO (2005) in his report stated that the age range of the 20s is the age that is already allowed to do work, both industrial work and non-industrial work. The description contained in the report is also strengthened by the findings of Putri and Tualeka (2014) who explained that the age range of 21-30 years can be categorized as early adulthood. In general, early adulthood is a period where every worker has many dreams to achieve and is already thinking about a more mature life. So that in this age range every worker is required to be able to work with a sense of responsibility. This age range is a productive age where many companies are looking for. Still according to Putri and Tualeka (2014) it was explained that the age of workers over 30 years is the final adult age which has the characteristic of a slight decrease in the body's ability, so that workers in this age range tend to pursue existing jobs and not move to other jobs. Furthermore, the description of respondents based on education level will also be explained in table 4.3 below:

Table 4.3 Description of Respondents by Education Level

Level of education	Amount	
	Respondents	%
JUNIOR HIGH SCHOOL	24	11,21
SMA / SMK	190	88,79
Total	214	100

Source: Primary Data, processed in 2021

Based on table 4.3 above, it can be explained that most of the workers at PT WIS Malang who were respondents in this study had a secondary education level which was marked by a percentage of 88.79%. This indicates that PT WIS in recruiting cleaning workers prioritizes technically skilled personnel, namely workers who have graduated from high school or vocational school. Even though there are some workers who are junior high school graduates, this does not rule out the possibility that these workers can also do technical work such as high school graduates because after going through the process of recruiting workers, PT WIS Malang provides various special training related to the field of work to be carried out by PT WIS employees

Validity test

Significance test is done by comparing the value of r count with r table for degree of freedom (df) = n-2. If r count is greater than r table and the value is positive, it can be concluded that all indicators are valid (Ghozali, 2013). In this study, all 28 questions on the research instrument were declared valid because they had $r_{count} > r_{table}$ (0.138).

Reliability Test

Reliability test is intended to determine the consistency of measuring instruments in their use. A reliable instrument is an instrument which, when used several times to measure the same object, will produce the same data (Sugiyono, 2014). In the research, the reliability test

was carried out by looking at the Cronbach alpha value for each variable. Cronbach alpha values can be seen in the following table:

Table 4.4 Reliability Test

Variable	Alpha Cronbach	Information
Occupational Health and Safety Training (X)	0.875	Reliable
Safe attitude at work (Y)	0.848	Reliable

Source: SPSS results, processed in 2021

Heteroscedasticity Test

The results of testing the assumption of heteroscedasticity using the Scatter plot show that the residual points spread randomly. Thus the assumption of heteroscedasticity is met or in other words the pattern of the respondents' answers has an even distribution of results.

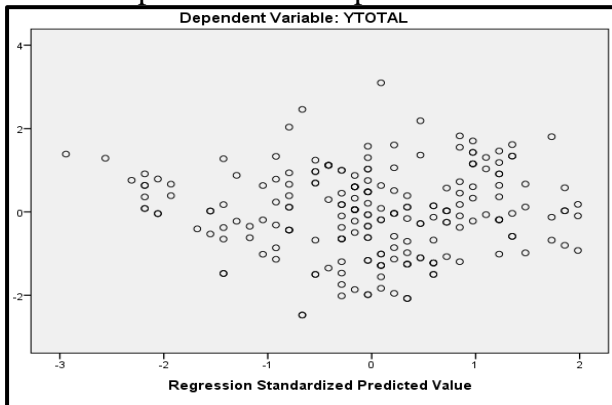


Figure 1 Heteroscedasticity Test

Source: SPSS Output 2021

Normality test

The results of the normality assumption test show that the residual points follow the diagonal line. This means that the residuals are normally distributed. Thus the assumption of normality is fulfilled or in other words the respondents who answered the questionnaire according to predetermined criteria. The results of the normality test can be seen in the following figure:

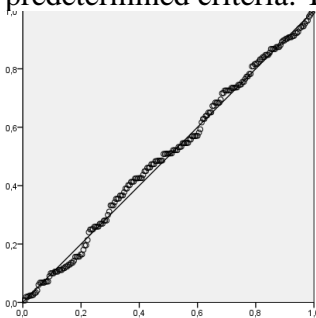


Figure 2. Distribution of Residual Normality Test Points

Source: SPSS Output 2021

In addition, referring to the results of the Kolmogorov-Smirnov test, it is known that Asymp. Sig (2 tailed) has a value of > 0.05 , namely at 0.20. These results also prove that the data is normally distributed.

Durbin Watson Correlation Auto Test

The autocorrelation test is part of the classic assumption test in both simple and multiple linear regression analysis. This test aims to determine whether in the linear regression model there is a correlation between the confounding errors in period I and the interfering errors in the t-1 (previous) period. If there is a correlation, it can be explained that there is an autocorrelation problem. A good regression model is a regression that is free from autocorrelation symptoms. One tool in testing autocorrelation is to use the Durbin Watson Test. The basis for decision making in this test is if $d_4 < d_l$ then the null hypothesis is rejected. Then if $d_U < d < 4 - d_U$ then the null hypothesis is accepted. In this study, it can be explained that there is no autocorrelation because the coefficient value of the Durbin Watson Test is 1,690.

Regression Equation

A simple regression test is used to test the effect of the Occupational Health and Safety Training variable (X) on the Safe Work Attitude variable (Y). This regression analysis is intended to determine changes in the value of the dependent variable due to changes in the independent variables. The results of the calculation of the regression analysis can be explained as follows:

Table 4.5. Simple Regression Test Results:

Dependent variable	Free Variables	Regression Coefficient (b)
Safe Working Attitude (Y)	Occupational Health and Safety Training (X)	4.44
Constant		3,526
R		0.694
Adjusted R Square		0.479

Source: SPSS output processed, 2021

The correlation coefficient (R) is (0.694) meaning that the Occupational Health and Safety Training variable (X) has a fairly strong relationship with Safe Attitudes at Work (Y). The coefficient of determination (adjusted R²) is $0.479 = 47.9\%$ or 48% , meaning that the diversity of the Safe Attitudes at Work variable (Y) can be explained by the Occupational Health and Safety Training variable (X) of 48% , and the remaining $1 - 0.479 = 0.521$ or 52% is the contribution of other variables not discussed in this study. The results of a simple regression test can be formulated into the regression line equation as follows:

$$Y = a + bX + e$$

$$Y = 3.526 + 4.44X + e$$

From the equation above, the following explanation can be drawn:

1. $a = (3.526)$ means that if the Occupational Health and Safety Training variable (X) has not been changed or it is assumed that it does not exist, then the Safe Attitudes at Work variable (Y) is equal to 3.526. The constant states that the magnitude of the change in Safe Attitudes at Work if the Occupational Health and Safety Training variable (X) has a constant value of 3,526.
2. The regression coefficient (b) is 4.44, which means that if the Occupational Health and Safety Training (X) variable increases by one unit, then the Safe Attitudes at Work variable (Y) will increase by 4.44 units. When cleaning service workers at PT WIS always try to deepen their knowledge of occupational health and safety by participating

in training provided by the company, this can affect their safe attitude at work when in operational activities at their respective assignment places.

5. Discussion

Set by paying attention to the results of data processing using the SPSS application and testing hypotheses through various assumption tests, it can be explained that there is harmony between the theory proposed in Chapter 2 and the research results. The findings show that the Occupational Health and Safety training program greatly influences the formation of a safe attitude in working for cleaning service workers who are under the auspices of the management of PT Werbel Indonesia Services Malang. Various trainings are provided by the management of the company in order to ensure that the workforce is reliable and trained in carrying out building cleaning operations, both external and internal cleaning of buildings. In addition, the company also provides cleaning service personnel with additional skills such as minor repair skills related to gas, electricity,

The results of this study supports previous research conducted by Fassa and Rostiyanti (2020) that respondents who have feel K3 training the training affects level of awareness of respondents in work safely on projects. In addition, in research conducted by Dejanović and Heleta (2016) also explained that Workers who have been trained on Occupational Health and Safety will tend to be aware of all work risks and will try their best to minimize these risks by using personal protective equipment and working according to applicable procedures. In this case, the K3 training held by PT WIS Malang plays an important role in ensuring that the cleaning service personnel in charge maintain a safe and measurable work attitude in order to minimize work risks that may arise during cleaning operations.

Theoretical Implications

The results of this study support the theoretical explanation presented by Winder and Gardner, (1999) that OHS training can increase worker competence regarding safe standards for carrying out routine activities both within the office and in the fabrication environment. There are several objectives of implementing standardized OHS training for workers, namely to build an occupational health and safety management system that is based on the knowledge and competencies possessed by workers in an organization; to provide knowledge to workers about both national and international applicable regulations regarding OSH, as well as provide additional knowledge about risk-based work management; to test the competence of workers regarding how reliable they are in mastering a job, especially related to the work risks they face; to provide a portfolio in building corporate image and valuation in the global community (zero accident / low waste predicate); as well as to build a work culture of employees so that they are able to work safely, effectively and use resources efficiently.

In this study it is clear that PT WIS Malang has tried to provide standardized Occupational Health and Safety training to improve employees' safe working attitudes in carrying out operational activities at their respective placement locations. The training given to cleaning service employees is not only for upgrading workers' skills, but also aims to maintain the zero accident title that has been formed for a long time. The security predicate is a guarantee given to PT WIS Malang clients so the company needs to maintain this predicate by routinely providing training to the cleaning service staff.

Practical Implications

Practical implications include suggestions given to research objects after going through a systematic study in research. In the period from 2020 to the present, cleaning

service personnel are at the forefront (besides health workers) who play a major role, especially in preventing the transmission of the Covid-19 virus. With this research, it would be nice for the management to equip cleaning service personnel with knowledge regarding cleanliness that is standardized by the World Health Organization to break the chain of the spread of the Covid-19 virus in building areas, both offices and public facilities. This is important considering the tendency for people to gather in the building area remains high despite social restrictions. The safety risk for cleaning workers is at stake because apart from having to maintain the cleanliness of the building, they are also required to maintain personal hygiene so they don't get infected with the virus. In addition, companies are also encouraged to always notify the cleaning staff on duty to always comply with the applicable health protocols.

6. Conclusion and Suggestion

Conclusion

Based on the results of statistical processing carried out using the SPSS application, it can be explained that the Occupational Health and Safety Training variable can influence the formation of a Safe Attitude at Work in cleaning service personnel at PT Werbel Indonesia Services Malang.

Suggestion

The advice that can be given to PT Werbel Indonesia Services Malang after this research is that it is hoped that the company can continue to provide training related to improving special skills for cleaning service personnel. The training is to test the competence of workers about how reliable they are in mastering a job, especially related to the work risks they face. In addition, this training is also a portfolio in building the company's image and assessment in the global community (zero accident / low waste predicate).

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