

## **Analysis of Management Commitment in an Effort To Increase Ohs Communication at Pt. Aneka Gas Industry Region V East Java**

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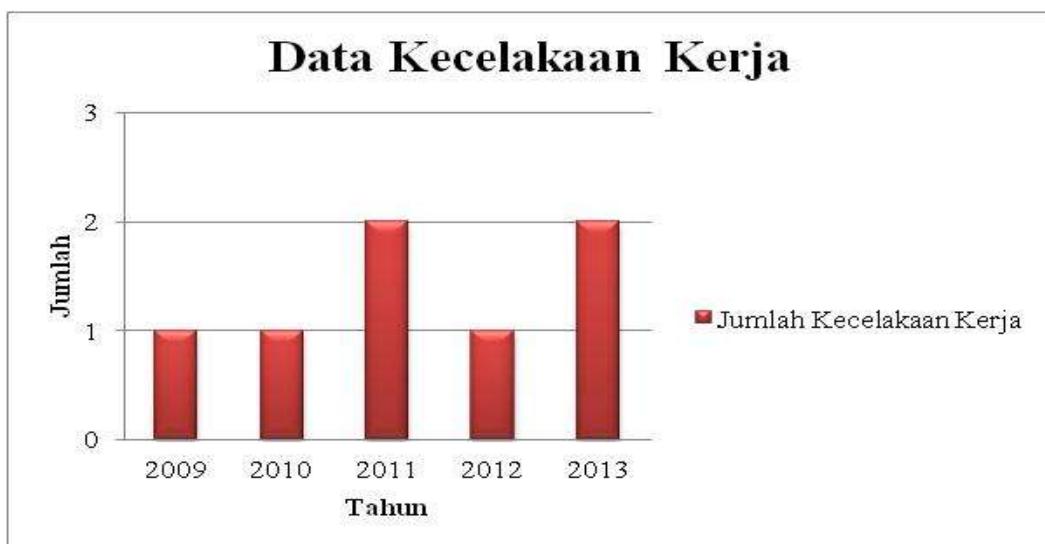
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**Abstract:**-The aims of this study was to investigated the elements of management commitment to improve OHS communication with individual commitment and OHS knowledge as an intervening variable. This study used a quantitative method by cross-sectional and observational study. Population of this study were 160 workers using proportionate stratified random sampling technique by the sample size were 115 workers. Data were collected using the interview with questionnaire and observation checklist. The result of this study showed that there was correlation between OHS knowledge, management's commitment, The respondents' education characteristics (elementary and junior high) and OHS communication. Variables of OHS knowledge, management commitment, and education were able to explain the variation in OHS communication, it was about 72,1%, while 27,9% of variation were explained by other variables. In associated with other supporting factors, the OHS communication should be enhanced further in open dialog on a scheduled period or through visual media publication or videos. The most effective to do was giving an example to the line workers. In addition, it was necessary to develop other OHS programs to support the SHMS implementation optimally.

**Keywords:-** Management System, Management Commitment, OHS Communication

### **I. INTRODUCTION**

As the producer of gas PT. Aneka Gas Industri Region V East Java has potential for the various dangers starting from the production tools to the products and industrial wastes, and also workers. Besides, in the area the distribution processes may involve workers. So that it needs OHS management system to minimize the danger that may occur. Based on the previous studies, it was found that there had been some working accidents occurred. This could be showed in the following table 1.1



**Figure 1.1 Working accidents in PT. AGI during 2009-2013.**

In 2009-2013, there have been 7 working accidents and it could be gained some factors causing the accidents such as worker's unsafe actions and unsafe condition from the work place. Some activities in the distribution division could be found that the factors causing the working accidents were worker's unsafe actions and unsafe condition that can be seen in the following table 1.1

**Table 1.1 the description of OHS activities in the distribution division of PT. AGI Region V East Java**

No	Activities	Safe		%		Notes	
		Kinds of Safe Behaviors	Yes	No	Safe		
1	<b>Working tool operation</b>	18	5		<b>78,26</b>	<b>21,73</b>	There has been a house keeping rule, but the workers' awareness of implementing the rule were still low. It could be proved by many untidy things in the distribution area and the transportation.
2	<b>Safe driving</b>	9	0		<b>100</b>	<b>0</b>	
3	<b>Safety devices usage</b>	5	0		<b>100</b>	<b>0</b>	
4	<b>Equipments/tools</b>	5	0		<b>100</b>	<b>0</b>	
5	<b>APD Usage</b>	13	4		<b>76,47</b>	<b>23,52</b>	
6	<b>Safe loading</b>	4	3		<b>57,14</b>	<b>42,85</b>	
7	<b>Safe placement</b>	6	2		<b>75</b>	<b>25</b>	
8	<b>Safe lifting</b>	3	1		<b>75</b>	<b>25</b>	
9	<b>Position when working</b>	15	9		<b>70</b>	<b>30</b>	
10	<b>Behavior when working</b>	6	5		<b>62,5</b>	<b>37,5</b>	
11	<b>House keeping</b>	2	6		<b>25</b>	<b>75</b>	
12	<b>Ergonomic</b>	4	2		<b>66,67</b>	<b>33,33</b>	
<b>Total</b>		<b>90</b>					

Based on the table 1.1, showed that OHS activities conducted by the workers in one of the work units like distribution was not optimal yet. All the factors caused the working accidents couldnot be separated from the function of application of work safety and health in each work unit. One of the common causes could be seen in Bird (2003)<sup>1</sup> starting that 85-95% of the above incidents were caused by uncomfortable act and human errors which could be controlled by the management system. The control of management system must be supported by the management commitment as the key of success in implementing OHS (Ramli, 2010)<sup>2</sup>

Human aspects with this unsafe behavior makes a special attention in OHS approach. Unsafe action done by a worker raises because of three factors, they were not knowing, not being able, and not willing. These factors relates with the attitude and care of OHS. SMK3 warrants the organization to build and develop the care about OHS in the organization environment. This must also be communicated to all parties in the organization (Ramli, 2010)<sup>2</sup>. Cooper (2000)<sup>3</sup> suggests that the officers in OHS field should be senior so that they could give examples and was able to ask some other parties and workers together to succeed the process of OHS implementation. This could be measured through management commitment and OHS communication between management and workers.

Based on the previous studies, PT AGI Region V East Java had applied OHS management system. Ideally, applying OHS communication must be appropriate with the procedures or requirements. In fact, the application was not maximal yet. For example, safety induction had not been done especially to the relation and the company guests. Safety induction was the materials prepared for work safety and health which must be done before starting to work. Every implementation of working that was done alone or with other sites must be done according to the procedure of safety induction. Besides, the application form of OHS communication such as safety promotion and the issue of OHS has not been optimal. This could be proved by the absence of observation or supervision and follow up whether the OHS information from the manager can be floored to the lowest level of the workers.

So far OHS information has only been informed to the level of manager through safety talk every 2 weeks without being controlled whether the information issued can be accepted or understood by the employees well or not. The mistake in labeling the chemical substance may still happen. There existed the mistakes in giving COA (Certificate of Analysis) on the tube that would be distributed. This was caused by lacking of the communication between the workers.

Looking at the importance of management commitment and OHS communication in an organization, this research aimed at analyzing the management commitment elements based on the Government Rules (PP) No. 50 tahun 2012 in an effort to increase OHS communication in PT. AGI Region V East Java by looking at the individual commitment and OHS knowledge as the intervening variables.

The aims of this research were: a). analyze the correlation between management commitment with OHS communication, b). analyze the correlation between management commitment with individual commitment, c). analyze the correlation between individual commitment with OHS communication, d). analyze the correlation between OHS knowledge with OHS communication, e). analyze the correlation between the respondents' characteristics with OHS knowledge, f) analyze the correlation between the respondents' characteristics with individual commitment, g). analyze the correlation between the respondents' characteristics with OHS communication, and h). give the recommendation to the company in an effort to increase the OHS communication in PT. AGI Region V East Java.

## **II. MATERIALS AND METHODS**

This research was used quantitative analysis design. The data were collected observationally with cross sectional approach. The population in this research was all full time workers of PT AGI region V East Java. There were about 160 workers. The sampling technique used was proportionate stratified random sampling about 115 subjects.

**Table 3.1 Frequency Distribution of Respondents' Characteristics Variables, OHS knowledge, Individual Commitment, Management Commitment and OHS Communication**

Variables	Category	Total	%
<b>Respondents's Characteristics</b>			
<b>Age</b>	20-30	24	20,9
	31-41	55	47,8
	>41	36	31,3
<b>Sex type</b>	Male	98	85,2
	Female	17	14,8
<b>Working time</b>	< 5 years	38	33
	5-10 years	35	30,5
	>10 years	42	36,5
<b>Status</b>	Manager	7	6,1
	Supervisor	6	5,2
	Foreman	6	5,2
	Workers	96	83,5
<b>Education</b>	SD	5	4,3
	SMP	5	4,3
	SMA	64	55,7
	PT	41	35,7
<b>OHS Knowledge</b>	Poor	8	7.0
	Fair	57	49.5
	Good	50	43.5
<b>Individual commitment</b>	Poor	6	5.2
	Fair	58	50.4
	Good	51	44.4
<b>Management commitment</b>	Poor	7	6.1
	Fair	59	51.3
	Good	49	42.6
<b>OHS policy</b>	Fair	1	9.0
	Good	114	99.1
<b>Responsibility and authority to act</b>	Fair	6	5.2
	Good	109	94.8
<b>Review and evaluation</b>	Fair	13	11.3
	Good	102	88.7
<b>Variables</b>			
<b>Respondents's Characteristics</b>			
<b>Involvement and Consultation with workers</b>	Fair	6	5.2
	Good	109	94.8
<b>OHS communication</b>	Poor	20	17.4
	Fair	62	53,9
	Good	33	28,7
<b>Variable total</b>		115	100.0

Independent variables in this research were the respondents' characteristics (age, sex type, working time, status, and education), management commitment with sub element variable of management commitment (OHS policy, Responsibility and Authority to Act, Review and Evaluation, and Involvement also consultation with workers), including OHS knowledge and individual commitment were used as intervening variables. The dependent variable was OHS communication and OHS

Collecting data were using interviews, questionnaires, observation with checklist, and documentation. The data was analyzed used bivariat test with Spearman correlation and multivariate test with ordinal logistic regression.

### **III. RESULT AND DISCUSSION**

Bivariat analysis used alfa  $\alpha = 0.25$ . Table 3.2 was showed the result of bivariate analysis.

**Table 3.2 Bivariate analysis Managemen commitment, OHS communication, Individual commitmen, Age characteristics, Sex type characteristics, working time characteristics, Status characteristics, Education characteristics**

Independent variables	Dependent variables: OHS Communication		Conclusion
	Correlation Coefficient	p-value	
<b>Management commitment</b>	0,519	0,000	Ho was refused
<b>OHS policy</b>	0,148	0,113	Ho was refused
<b>Responsibility and authority to act</b>	0,265	0,004	Ho was refused
<b>Review and evaluation</b>	0,178	0,057	Ho was refused
<b>Involvement and consultation with workers</b>	0,265	0,004	Ho was refused
Independent variables	Dependent variables: Individual Commitment		Conclusion
	Correlation Coefficient	p-value	
<b>Management commitment</b>	0,323	0,000	Ho was refused
<b>OHS policy</b>	0,072	0,442	Ho was accepted
<b>Responsibility and authority to act</b>	0,107	0,255	Ho was accepted
<b>Review and evaluation</b>	-0,032	0,732	Ho was accepted
<b>Involvement and consultation with workers</b>	0,107	0,255	Ho was accepted
Independent variables	Dependent variables: OHS Communication		Conclusion
	Correlation Coefficient	p-value	
<b>Individual commitment</b>	0,484	0,000	Ho was refused
<b>OHS knowledge</b>	0,705	0,000	Ho was refused
Independent variables	Dependent variables: OHS Communication		Conclusion
	Correlation Coefficient	p-value	
<b>Age characteristics</b>	-0,030	0,754	Ho was accepted
<b>Sex type characteristics</b>	-0,074	0,432	Ho was accepted
<b>Working time characteristics</b>	-0,052	0,581	Ho was accepted
<b>Status characteristics</b>	-0,049	0,602	Ho was accepted
<b>Education characteristics</b>	-0,066	0,486	Ho was accepted
Independent variables	Dependent variables: Individual Commitment		Conclusion
	Correlation Coefficient	p-value	
<b>Age characteristics</b>	0,099	0,293	Ho was accepted
<b>Sex type characteristics</b>	-0,009	0,921	Ho was accepted
<b>Working time characteristics</b>	0,108	0,252	Ho was accepted
<b>Status characteristics</b>	-0,074	0,434	Ho was accepted
<b>Education characteristics</b>	0,144	0,124	Ho was refused

Independent variables	Dependent variables: OHS Communication		Conclusion
	Correlation Coefficient	p-value	
<b>Age characteristics</b>	0,054	0,569	Ho was accepted
<b>Sex type characteristics</b>	-0,141	0,132	Ho was refused
<b>Working time characteristics</b>	-0,011	0,911	Ho was accepted
<b>Status characteristics</b>	-0,017	0,449	Ho was accepted
<b>Education characteristics</b>	0,193	0,039	Ho was refused

Based on the table 3.2 above, it could be concluded that:

1. There was correlation between the element of management commitment with OHS communication.
2. There was also correlation between management commitment with individual commitment.
3. There was also correlation between individual commitment and OHS knowledge with OHS communication,
4. There was correlation between respondents' education with individual commitment.
5. There was correlation between sex type with OHS communication
6. Education had correlation with OHS communication

#### Multivariat Analysis Results

The results of analysis used ordinal logistic regression conducted through parallelism test which aimed at knowing the correlation between free variables and fixed variables. The linearity testing criteria was if the significant value was more than 0,05, the correlation between free variables and fixed variables was parallel. In the parallelism test, it was stated that the significant value  $0,162 > 0,05$ . So that, those variables were parallel and homogenous.

**Table 3.3. The Results of Multivariat Testing Analysis of OHS Knowledge, Management Commitment, and Education with OHS Communication**

Independent Variables	Dependent variables : OHS communication		Conclusion
	Estimate Value	p-value	
OHS knowledge with fair category	-3,552	0,000	Ho was refused
Management commitment with poor category	-3,309	0,006	Ho was refused
Management commitment with fair category	-1,539	0,005	Ho was refused
Education characteristics – elementary	-2,902	0,024	Ho was refused
Education characteristics – junior high	-3,776	0,007	Ho was refused
Education characteristics – senior high	-0,53	0,917	Ho was accepted

**Table 3.4 Pseudo R-Square**

Pseudo R-square	Nilai R
Cox and Snell	<b>0,623</b>
Nagelkerke	<b>0,721</b>
Mc fadden	<b>0,489</b>

Based on the table 3.3. above, it was known that:

1. OHS knowledge significantly correlated with OHS communication
2. Management commitment significantly correlated with OHS communication
3. The respondents' characteristics – elementary and junior high – significantly correlated with OHS communication. Meanwhile, senior high did not significantly correlate with OHS communication.

The table 3.4 above showed that some variables – OHS knowledge, management commitment, and education were able to explain the variation in OHS communication, it was about 72,1%, while 27,9% of variation were explained by other variables.

## IV. DISCUSSION

The multivariate results in the third stage tested the correlation between variables of education, OHS knowledge, and management commitment with OHS communication. In the test of parallelism, it showed that those variables were homogenous and parallel. Based on the regression test of ordinal logistic third stage, it was found that OHS knowledge significantly related with OHS communication, and also the respondents' characteristics (elementary and junior high levels) significantly correlated with OHS communication. Meanwhile, the respondents' characteristics (senior high) did not correlate with OHS communication.

It could be concluded that from the independent variables of management commitment, respondents' characteristics, individual commitment and OHS knowledge, which could significantly correlate with OHS

communication were only management commitment, OHS knowledge, and respondents' education. This was in line with Notoatmodjo's opinion (2003)<sup>4</sup> stating that education and knowledge could influence someone to act and form opinions to the importance of contributing in the process of OHS communication which was practically the application form of SMOHS.

Management commitment also had great contribution to the implementation of OHS communication process and vice versa. Bad organization communication would cause low organization communication based on the evaluation of three basic components of organization commitment, namely, identification, involvement, and low loyalty (Kramer, 1999; Rodwell, 1998; Wahyuni, 2009)<sup>5</sup>.

Organization communication is the dynamic process which functions as the main tool whether the organization could get success or not in relation to the working environment. This was in line with Chen, et al (2006) in Wahyuni (2009)<sup>5</sup> stating that organization communication positively correlates with organization commitment and work capacity.

## **V. CONCLUSION**

1. The application of management commitment on any levels had been applied but it was not optimal by the total score of fulfillment about 58,7%. The management commitment including OHS policy element, responsibility and authority to act, review and evaluation, and worker's involvement and consultation had significant correlation with OHS communication based on the employees' perceptions.
2. The management commitment had relationship with individual's commitment based on the respondent's perceptions. However, the elements of individual commitment such as OHS policy elements, responsibility and authority to act, review and evaluation, and worker's involvement and consultation did not show any significant results statistically
3. The individual commitment had correlation with OHS communication.
4. The knowledge of OHS had significant correlation with OHS communication.
5. There was no correlation between the respondents' characteristics (age, sex type, working time, status, and education) with OHS knowledge. This showed that the respondents' OHS knowledge was not influenced by the personal factors. So that, it warranted other factor attentions that could influence the level of the respondents' OHS knowledge.
6. There was no correlation between the respondents' characteristics (age, sex type, working time, status) with worker's individual commitment. However, there was correlation between the respondents' education characteristics with individual commitment. Education influenced the learning process, the higher education the person was, the easier the person accepts the information. The more information the person gets, the more knowledge the person gets. So that, this could form individual's personality including individual's commitment to the company.
7. There was no correlation between the respondents' characteristics (age, working time, and status) with OHS communication, however, sex type respondents characteristics and education had significant relationship with OHS communication. Sex type influenced patterns of communication among the workers and also the formal education owned by the workers would be one of the predisposing factors which gave contribution to the workers in order that they could easily understand the working safety procedure obtaining in their work place.
8. Management commitment, OHS knowledge, and respondents' education categorized into elementary and junior high have significantly relationships with OHS communication.

## **ACKNOWLEDGEMENTS**

The suggestions that can be given to the company, readers and respondents from this research were as follows:

1. The company needs to make the flow of OHS communication process based on the company characteristics and each working unit, so that the communication process may run effectively and efficiently. The way that can be used was by using the direct dialog on the period scheduled or with publication through visual aids or video, and also the most effective thing was that the company management site can give the examples about the implementation of OHS in work units.
2. Reviewing the OHS policies as the form of the management commitment existed by involving any human resources that know more about the making of OHS object, goal, program, budget and so on. So that it can be firmed that OHS policies made by the management site were integrated entirely with the organization management system.
3. It needs increasing the appreciation program and the reward giving to all workers or employees who have good contribution to the implementation of OHS programs that have been fixed or arranged by the company including the program socialization to all work units related. So that it can grow the worker's individual commitment to the company.

4. It needs making OHS matrix training or comprehensive training plan by considering all aspects like worker's operational schedule, management, competence, cost, place, and training holder provided by coordinating with OHS team and human Resources Department (HRD). So that, the OHS training implementation can be optimally done based on the needs and can be followed by all workers, and can increase the worker's OHS knowledge.
5. It needs OHS socialization on SMOHS training awareness to all workers
6. It needs the further research on OHS communication and supporting factors. So that, it can be gained maximum results and can be the reference for other researches.

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