

The Influence Training of BPSDM (Human Resources Education Center Ministry of Transportation) Controlling and Work Motivation against Competency of Vocational Teachers in Indonesia

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Abstract--This study aims to analyze the effect of coaching, supervision and work motivation on the competence of Sailing Vocational Teachers in Indonesia. In addition to knowing whether there is a good relationship between each variable directly. This research uses a quantitative method with a path analysis approach. The population of this study is the Vocational School teachers in Indonesia who have TOT Model Course 6.09 certificates totaling 362 teachers with a sample of 190 teachers. The results showed the path coefficient of several variables related to teacher competence including coaching, supervision and work motivation. The novelty in this study found that the competence of overseas shipping teachers is dominated by training received in large numbers of 0.418 with the largest indicator which means an increase in knowledge, this is due to being a teacher. Set by IMO (International Maritime Organization)

Keywords-- Competency, Controlling, Training, Work Motivation.

I INTRODUCTION

A professional competences must have several requirements, including competencies in accordance with their work [1]. Competence is a complex combination of knowledge, skills, understanding, values, and preferences that leads to effective human action and manifested in a particular domain [2], [3]. A teacher who is a profession in sharing information is required to work professionally, especially in the use of digital media today [4]. Technology and information developments are massive, furthermore in the learning process students and teachers are required to be able to apply it [5], [6]. Vocational high School (SMK) which one of the stages of the education system in Indonesia, in the learning process SMK has a uniqueness that is 60% of the learning process is practice, and 40% is theory, SMK are required to produce output in the form of students can work professionally in accordance with their expertise [7]. To realizing that expectation, the teacher as the smallest unit of a school is required to increase its role in the learning process in the classroom by designing, developing and continuously updating all information related to learning received in accordance with market demands[8].

Education are related to the quality of the teacher , Related research conducted to the quality of the teacher, teacher competency was an important factor in determining the quality of education[10], 30% 30% the quality of schools is determined by the competence of teachers[11]. To continue to improve teacher competency, there are

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several training programs implemented by the government through teaching programs that are prepared to face challenges ahead that are closely related to the development of information technology[9].

Sailing Vocational School and academies organized private can be considered unique, because the governance of schools or institutions is regulated by the Ministry of Education, but for competency standards graduates must follow the criteria of the Ministry of Transportation. Experienced professionals will be given training and take competency standard examinations after which they will only be given a teaching certificate. Multitasking and very complex work. The main individual differences between groups of students who take the same class require adaptive teaching. Teachers are challenged to meet diverse learning needs and to adapt their teaching to heterogeneous academic abilities and various interests and motivations [12]. Teachers are challenged to meet diverse learning needs and adapt their teaching to heterogeneous academic abilities and various interests and motivations [13].

Therefore Teachers at the Sailing Vocational School consist of normative and adaptive materials teachers must be professionals, under the guidance of the Ministry of Education, it is expected to have high capability in delivering learning material. However, for the theme of shipping, it is not certain that normative and adaptive teachers can provide thematic shipping material to students. For professional teachers, coming from seafarers who already have sail experience and then have the desire to advance shipping education by teaching prospective young seamen in both vocational and academy schools. These arrangements are contained in the regulation of the Minister of Transportation Regulation. Regulations that are not implemented will cause many factors and this can affect the teacher's competence in teaching.

II RELATED WORK

Training has a significant role in increasing competence, this is in line with the results of Barnes's research which says that the quality of schools is determined by the quality of their teachers and to improve their competence the best thing is to provide training to teachers in accordance with their educational backgrounds, and their work units [14]. Within the scope of the Sailing High School in Indonesia, an authorized and officially licensed institution in providing standardized training from IMO is through the Ministry of Transportation and Training teachers has an important role to increase motivation at work and motivate teachers to improve their competence. Training has a significant influence on the formation of employee competencies [15], [16]. The training in short-term educational process that uses systematic and organized procedures carried out by an institution, not all institutions are allowed to establish a training activity, the institution in general is owned by the government which has a vision and mission to improve the quality of employees.

Competence is defined as the personal aspects of a person that makes it possible to achieve better performance. These personal aspects include the nature, motives, value systems, attitudes, knowledge and skills. Competence shown by individual characteristics consisting of knowledge, skills or personality characteristics that directly influence performance [17]. Competence is defined as the personal aspects of a person that makes it possible to achieve better performance. These personal aspects include the nature, motives, value systems, attitudes, knowledge and skills.

The teacher competency framework consists of a number of competencies namely knowledge, skills and

attitudes that enable an educator to develop teaching practices effectively [18], [19]. Furthermore, competencies as follows, competence is expected to improve as young people mature and learn across multiple domains of adaptation in basic capabilities and coordinated execution of actions [20]. Competence is an ability possessed by a person to act in accordance with the basic abilities that he has so far that are sourced from the education process and training results and even his work experience. Someone who has competence in his field and mastered it can be called a professional. Competence is not just about the expertise supported by the technical delivery of knowledge to students. Requirements are in the possession then it can be said that someone is a professional at work. Teacher competency standards are divided into three interrelated components, namely learning management, professional development, and academic mastery [21], [22]. Teacher competence is a combination of personal, scientific, technological, social and spiritual abilities that formally forms the teacher's professional competency standard, which includes mastery of the material, understanding of students, learning that educates, personal development and professional.

Therefore, the literature above that I describe is a basic study of this research with the aim of looking for relationships Supervision is the process of leadership of subordinates in controlling what their subordinates do in accordance with organizational goals in the supervisory process carried out by the leaders indirectly can motivate the work of employees to work optimally with the competencies that teachers must have at Sailing Vocational School and Academy.

III PROPOSED APPROACH

Training is a process in which people achieve certain abilities to help achieve organizational goals. Therefore, this process is bound by various organizational objectives, training can be viewed narrowly or broadly. On a limited basis, training provides employees with specific and knowable knowledge and skills used in their current jobs. Explained that the training received by employees can improve competence, just as teachers' knowledge of content and pedagogical skills directly impact student-teacher knowledge and achievement, teacher training impacts the knowledge teachers bring to the classroom. The quality of a school is determined by the quality of its teachers or Great School = Great Teacher. To advance education in Indonesia, what is no less important is to improve the competence and quality of teachers, one of which is to provide training to teachers as needed. The training given to teachers can help in increasing the skills, knowledge of teachers. Moreover, it can improve the performance of students who are educated. Sometimes there are boundaries drawn between training and development, with development that is broader in scope and focuses on individuals to achieve new abilities that are useful both for their current and future work. Related the role of training in the formation of employee competencies, training, Supervision, Motivation Work as determinant.

IV EXPERIMENTAL SETUP

Discussed the results of research that includes respondents' profiles, data description of each research variable, testing requirements analysis, calculation of path coefficients, testing of research hypotheses, and discussion of research results. The data includes competency variable data (Y) which is referred to as an endogenous variable,

training variable (X1) and supervision variable (X2) as exogenous variable, and work motivation variable (X3) as moderator variable. Descriptions of each variable are explained successively starting from the variables Y, X1, X2, and X3. Table 1 presents the summaries of descriptive gain properties of datasets of each variable are explained.

Table 1: Summary of descriptive gain properties

Statistics					
		Competences (Y)	Training (X1)	Supervision (X2)	Work Motivation (X3)
N	Valid	190	190	190	190
	Missing	0	0	0	0
Mean		17,55	116,61	124,30	115,92
Std. Error of Mean		,205	,469	,510	,388
Median		18,00	117,00	124,00	116,00
Mode		18	117	124	114
Std. Deviation		2,822	6,469	7,026	5,342
Variance		7,963	41,849	49,365	28,539
Range		16	34	33	26
Minimum		9	99	106	102
Maximum		25	133	139	128
Sum		3334	22155	23617	22025

In this study, respondents profiles were seen in 3 categories, namely (1) gender, (2) length of work in the company, and (3) last education of sailing Vocational teachers are male at 65%, while the remaining 35% are female. The number of teachers who have worked for <5 years is 39 people, amounting to 21%, and the number of teachers who have tenure of work > 10 years is 57 people, amounting to 30%. Summarizes 190 respondents based on their last education, the number of teachers with a bachelor's education was 102 people, 54%, the number of teachers with a master's education was 82 people, 43% and the number of teachers with a doctoral education was 6 people, 3%.

V RESULTS

The research sample comes from a normally distributed population, the regression equation must be significant and linear, and the fulfillment of the classical assumptions for multiple regression, and the relationship between the variables in the model must be significant. In this regard, before testing the model, testing of the applicable requirements in the path analysis is carried out first. The preparation of the regression equation model between competence and training the regression constant $a = -8.784$ and the regression coefficient $b = 0.226$ are obtained. Thus the relationship of the simple regression equation model is $\hat{Y} = -8.784 + 0.226X_1$, the preparation of the regression equation model between competence and supervision, the regression constant $a = -6.831$ and the regression coefficient $b = 0.196$ are obtained. Thus the relationship of the simple regression equation model is $\hat{Y} = -6.831 + 0.196X_2$. The regression equation model between competence and work motivation obtained a regression

constant $a = -4.937$ and a regression coefficient $b = 0.194$. Thus the relationship of the simple regression equation model is $\hat{Y} = -4.937 + 0.194X_3$. Calculations for the preparation of the regression model between the competence to work motivation regression constants obtained a regression coefficient $= -4.937$ and $b = 0.194$. Thus the relationship of the simple regression equation model is $\hat{Y} = -4.937 + 0.194X_3$. The regression equation between work motivation and training obtained a regression constant $a = 96.224$ and a regression coefficient $b = 0.169$. Thus the relationship of the simple regression equation model is $= 96.224 + 0.169X_1$. Regression between work motivation and supervision obtained a regression constant $a = 98.049$ and a regression coefficient $b = 0.144$. Thus the relationship of the simple regression equation model is $= 98.049 + 0.144X_2$. The research sample comes from a normally distributed population, the regression equation must be significant and linear, the fulfillment of the classical assumptions for multiple regression, and the relationship between the variables in the model must be significant. In this regard, before testing the model, testing of the applicable requirements in the path analysis is carried out first.

Table 2: Significance Test of Competency Regression for Training

	Model	Sum of Squares	df	Mean Square	F	Sig.
1	Regression	403,316	1	403,316	68,820	,000 ^b
	Residual	1101,758	188	5,860		
	Total	1505,074	189			
a. Dependent Variable: Competency (Y)						
b. Predictors: (Constant), Training (X1)						

Table distribution of F using the degrees freedom (df) of numerator = 1 and the denominator db (n - 2) = 188 with a significant level of 0.05. Obtained Ftable of 3.89 and Fcount of 68.820. This shows that Fcount > F table and probability value Sig. (0,000) < significant level (0.05), the regression equation Y for X1 is stated to be very significant.

Table 3: Significance Test of Competency Regression for Supervision

	Model	Sum of Squares	df	Mean Square	F	Sig.
1	Regression	358,864	1	358,864	58,861	,000 ^b
	Residual	1146,209	188	6,097		
	Total	1505,074	189			
a. Dependent Variable: Competency (Y)						
b. Predictors: (Constant), Supervision (X2)						

Table distribution of F using the degrees freedom (df) of numerator = 1 and the denominator db (n - 2) = 188 with a significant level of 0.05. Obtained Ftable of 3.89 and Fcount of 58.861. This shows that Fcount > F table and probability value Sig. (0,000) < significant level (0.05) then the regression equation Y for X2 is declared very significant.

Table 4: Significance Test of Competency Regression for Work Motivation

	Model	Sum of Squares	df	Mean Square	F	Sig.
1	Regression	202,928	1	202,928	29,298	,000 ^b
	Residual	1302,146	188	6,926		
	Total	1505,074	189			
a. Dependent Variable: Competency (Y)						
b. Predictors: (Constant), Work Motivation (X3)						

Table distribution of F using the degrees freedom (df) of numerator = 1 and the denominator db (n - 2) = 188 with a significant level of 0.05. Obtained Ftable of 3.89 and Fcount of 29.298. This shows that Fcount > F table and probability value Sig. (0,000) < significant level (0.05) then the regression equation Y for X3 is declared very significant.

Table 5: Significance Test of Work Motivation Regression for Training

	Model	Sum of Squares	df	Mean Square	F	Sig.
1	Regression	225,695	1	225,695	8,210	,005 ^b
	Residual	5168,121	188	27,490		
	Total	5393,816	189			
a. Dependent Variable: Work Motivation (X3)						
b. Predictors: (Constant), Training (X1)						

Table distribution of F using the degrees freedom (df) of numerator = 1 and the denominator db (n - 2) = 188 with a significant level of 0.05. Obtained Ftable of 3.89 and Fcount of 8.210. This shows that Fcount > F table and probability value Sig. (0.005) < significant level (0.05), the regression equation X3 over X1 is declared very significant

Table 6: Significance Test of Work Motivation Regression for Supervision

	Model	Sum of Squares	df	Mean Square	F	Sig.
1	Regression	192,888	1	192,888	6,972	,009 ^b
	Residual	5200,928	18	27,665		
	Total	5393,816	18			
a. Dependent Variable: Work Motivation (X3)						
b. Predictors: (Constant), Supervision (X2)						

Table distribution of F using the degrees freedom (df) of numerator = 1 and the denominator db (n - 2) = 188 with a significant level of 0.05. Obtained Ftable of 3.89 and Fcount of 6.972. This shows that Fcount > F table and probability value Sig. (0.009) < significant level (0.05), the regression equation X3 over X2 is declared very significant.

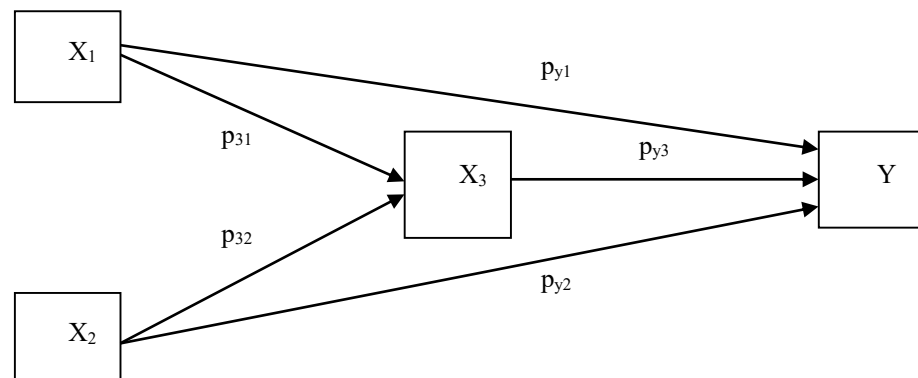


Figure 1: Structural Models between Variables

The path coefficient value in the first sub-structure model is the path that connects the training variable to the competency variable, the path that connects the supervisory variable to the competency variable, and the path that links the work motivation variable to the competency variable. The path coefficient value in the second sub-structure model is the path that connects the training variable to the work motivation variable, and the path that connects the monitoring variable to the work motivation variable.

VI CONCLUSION

Very important requirement that must be met is the existence of a significant correlation between related variables and related to one another.

Table 7: Correlation Coefficient Test Results

Correlations		Competency (Y)	Training (X1)	Supervision (X2)	Work Motivation (X3)
Competency (Y)	Pearson Correlation	1	,518**	,367**	
	Sig. (2-tailed)		,000	,000	,000
	N	190	190	190	190
Training (X1)	Pearson Correlation	,518**	1	,205**	,205**
	Sig. (2-tailed)	,000		,005	,005
	N	190	190	190	190
Supervision (X2)	Pearson Correlation	,488**	,147*	,189**	,189**
	Sig. (2-tailed)	,000	,043	,009	,009
	N	190	190	190	190
Work Motivation (X3)	Pearson Correlation	,367**	,205**	1	1
	Sig. (2-tailed)	,000	,005		
	N	190	190	190	190

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

Table 7 shows that the probability value of Sig. (2-tailed) all correlation coefficients are smaller than the significant level (α) 0.05 then all correlation coefficients are declared significant, then it can be concluded that the partial correlation coefficient between training on competence, if work motivation is controlled is very significant (significant), so it can be interpreted that, if work motivation is controlled remain, then the training provides a stable significant contribution to competence. The second structural model estimation results are then shown in the following figure 2.

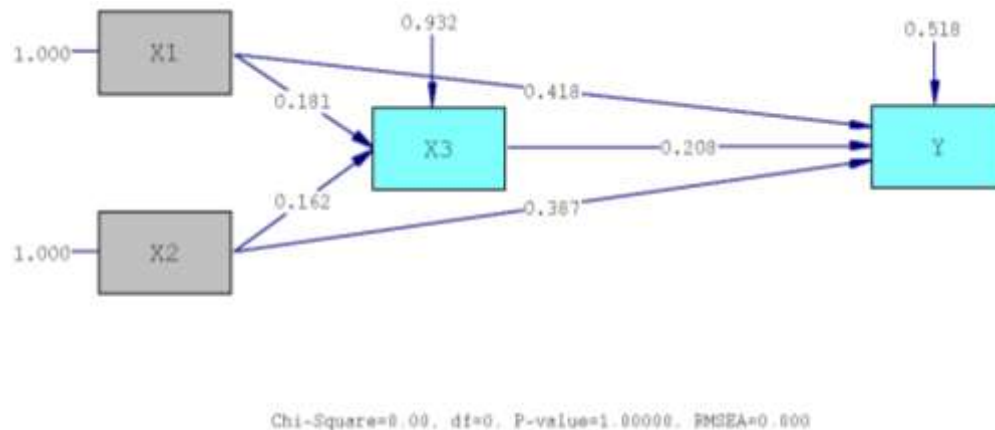


Figure 2: Goodness Fit Index Test Results (GFI)

Then the picture above was tested Goodness Fit Index (GFI) with the help of the Lisrel program. Chi-Square price = 0.0, free degree = 0, p value = 1.00 > 0.05 or not significant, so that the fit model is classified as very good.

Based on the results of the analysis of the variables of training, supervision, work motivation and competence can be concluded as follows; Training has a positive direct effect on competence. This means that teacher quality is a reflection of the quality of schools and their graduates. To maintain the quality of schools the most important thing is to maintain teacher competence through training programs provided to teachers. Supervision has a direct positive effect on competence. This means that the principal's role in determining teacher performance standards in accordance with work stipulated by the IMO (International Maritime Organization) can improve teacher competency. Work motivation has a direct positive effect on competence. This means that teacher motivation has an important role in determining his competence in working, by attending several trainings, workshops in accordance with his area of expertise. Training has a positive direct effect on work motivation. This means that the training received by the teacher will not be useful if the work motivation does not change or increase. Supervision has a direct positive effect on work motivation. This means that supervision by the school principal or supervisor in the context of providing assistance when the teacher does not comply with what he is doing can provide extrinsic motivation for the teacher to continue working harder to be in compliance with the regulations. Training has a positive indirect effect on competence through work motivation. This means that the training received by the teacher by increasing the teacher's information and knowledge in working directly can affect the teacher's work motivation at work which will have an impact on the work outcomes and increase teacher competence. Supervision has a positive indirect effect on competence through work motivation. This means that with the help of school supervisors and school principals to provide corrections to errors made by teachers, teachers quickly and accurately correct these errors and have an impact on increasing teacher work motivation and increasing the ability of teachers both in hard skills and soft skills which impact on teacher competence.

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