

## THE EFFECT OF PRODUCTION SUPERVISORY COMPETENCY OF HEAVY EQUIPMENT OPERATORS PERFORMANCE AT THE MINING CONTRACTOR OF PT. RIUNG MITRA LESTARI

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**ABSTRACT :** *This research has a purpose to know about the impact of competency supervisor toward heavy equipment operator performances at minerals and coal mining contractor PT. Riung Mitra Lestari. The method was used in this research are descriptive analysis with SPSS program version 20.0. The respondent in this research are divided into 2 categories, they are supervisors as a supervisor (14 people) and heavy equipment operators as a subordinate (125 people). The result of this research show that supervisor competency have a positive and low impact toward heavy equipment operator performances. Recommendation of this research are to fulfill the gap of supervisor competency especially social competency needs development to support increasing heavy equipment operator performance at mining contractor.*

**Keywords:** *Supervisor Competency, Heavy Equipment Operator Performances*

### I. INTRODUCTION

According to the Indonesian Coal Mining Association (APBI), in 2013 it is predicted that Indonesia's coal production will increase by 5% compared to coal production in 2012, because coal prices in the world market have gone up compared to the previous year, as well as an increase in demand coal for other Asian countries and to meet Indonesia's own energy needs, which is targeted by the government at 20.3% of national coal production.

PT. Riung Mitra Lestari as a mining contractor company working on several coal mining projects of large coal producing companies in Indonesia such as PT. Berau Coal, Tbk, PT. Indo Tambangraya Megah, Tbk faces an increasingly large challenge to fill business opportunities in the field of mining services amid intense competition with the growing number of mining service companies in Indonesia.

The performance measure of a coal mining contractor company is the achievement of production produced both overburden (OB) and coal production and effectiveness in carrying out the production process or termed the utilization of availability (UA). The results of the achievement of both overburden and Coal production, as well as utilization at PT. Riung Mitra Lestari Period July 2012 - February 2013 all still below the target set, achieved below 75%, so that the performance of PT. Riung Mitra Lestari is said to be low (low performance). This is because overburden and coal production produced by heavy equipment operators is not achieved and there is still a lot of time wasted in the production process.

To be able to know the success of a company can be seen through the performance of the company, which can be measured based on the quality and quantity of outputs produced and the effectiveness in the process. The performance of employees affects the performance of a company. Employee performance is often interpreted as the success of carrying out employee tasks assigned to him.

Employee performance that exceeds the target of the company's standards is expected by all companies, because it can affect the company's performance. The performance measurement of mineral and coal mining contracting companies is the achievement of production produced both overburden (OB) and coal production and effectiveness in carrying out the production process or termed with utilization of availability (UA).

This is because overburden and coal production was produced by heavy equipment operators is not achieved and there is still a lot of time wasted in the production process. The results of the performance appraisal of mining operations employees namely production supervisors as superiors and heavy equipment operators as subordinates reach 90%, which means good performance or performance is achieved, but when

compared with the achievement of company performance will be the opposite, so this can be said that there is a problem with the performance. The results of performance appraisal for heavy equipment operators will affect the upgrading of the operator.

Whereas the results of the supervisory performance evaluation will be submitted to the relevant Manager at the head office as the final decision maker on the production supervisory performance evaluation, because the results of this assessment are used as an annual bonus calculation material and requirements for promotion of the promotion of production supervisors. The fact that the results of the production supervisor's performance evaluation are not approved by the relevant manager in the head office on the grounds the company's performance is not achieved.

This causes dissatisfaction with the production supervisor himself over the performance produced by the heavy equipment operator who is his subordinate. An employee's performance is also strongly influenced by the ability, expertise and behavior of the employee or competence.

The competency of the production supervisor will affect the work process carried out by the heavy equipment operator as his subordinate which in turn can affect the work of the heavy equipment operator, because if the production supervisor has low competence then they do not understand if the work process carried out by the subordinate is right or wrong, so that it can affect the performance of subordinates. From the Employee Competency Test (ECT) data, especially for the Production group leader level, out of 12 Overseas job site group leaders who participated in competency mapping, 83% of group leaders had competencies below the required standard values, only 17% met the value competency standards, this is in accordance with the performance achieved by the company that is still below the standards set because group leaders with low competence cannot analyze the work processes carried out by heavy equipment operators as their subordinates.

Against this background, the writer wants to know the effect of the competency of the production supervisor on the performance of heavy equipment operators at PT. Riung Mitra Lestari is a mineral and coal mining contracting service company.

## II. THEORETICAL BASIS

Competence is defined by Spencer and Spencer and Mitrani explained that competency is a part of a person's personality that is quite deep and relatively sedentary and can predict behavior in a variety of situations and tasks in a position (Meilani D, 2008). A competency causes or predicts a person's behavior or performance (Prihadi and Meuthia) (Meilani D, 2008).

According to the LOMA competency dictionary (Meilani D, 2008) that competency is defined as the personal aspects of a worker that makes it possible to achieve superior performance. These personal aspects include traits, motives, value systems, attitudes, knowledge and skills. These competencies will lead to a behavior and the behavior will produce a performance.

Organizational behavior experts (Wood, Wallace and Zeffane, Robbins and Judge and Harris), explain the concept of competence as a combination of aptitude and ability (Winanti, 2011). Talent shows the ability to learn something that is potential. Whereas ability refers to the capacity of individuals to carry out various tasks in a job, ability can be fostered by knowledge and skills.

Whereas in the opinion of management experts Rampersad defines competence as a collection of knowledge, experience, skills, values or norms as well as the behaviors needed to complete work and as a basis for achieving personal success and prosperity. Psychologists (Marshall) explain that competence is a basic characteristic of a person that allows to provide superior performance in certain jobs, roles or situations (Ronald Listio, 2010a).

According to Wibowo, that competence is an ability to carry out or carry out a job or task based on skills and knowledge and is supported by the work attitude demanded by the job (Wibowo, 2011).

### Competency Characteristics

According to Spencer and Spencer stated that individual competence is a character of attitudes and behaviors, or individual abilities that are relatively stable when facing a situation at work that is formed from the synergy between character, self-concept, internal motivation, and contextual knowledge capacity (Ronald Listio, 2010b). There are five main characteristics of competence that will ultimately affect one's individual performance, namely:

#### 1) Motives

Motive is something that is thought or desired by someone consistently and there is encouragement to make it happen in the form of actions. Marshall also explained that motives are thoughts and unconscious preferences that drive behavior because behavior is a source of satisfaction (Ronald Listio, 2010b). Motives encourage, direct and choose behavior towards certain actions or goals.

#### 2) Character or traits

Character or traits are mental characteristics and the consistency of a person's response to stimuli, pressures, situations or information. For example self-confidence, self-control and endurance or fortitude. This is

confirmed by Marshall that character is a characteristic that is rooted in a person and reflects the tendencies he has (Ronald Listio, 2010b).

### 3) Self concept

Namely the noble value system that is held in high esteem by someone, which reflects about the shadow of the self or the attitude of the self towards the aspired future or towards a phenomenon that occurs in the environment. Marshall also revealed that self-concept is a picture that someone has about himself that reflects his identity (Ronald Listio, 2010b). Kreitner and Kinicki explained that self-concept is one's self-perception as physical, social and spiritual beings (Ronald Listio, 2010b).

### 4) Knowledge

Knowledge is information that has meaning that is owned by someone in a particular field of study. Knowledge is a complex competency.

### 5) Skill

Skill is the ability to carry out a particular task both physically and mentally. Mental competence or cognitive competence includes analytical thinking (knowledge and data processing), determining cause and effect, data collection and planning and conceptual thinking. Dale said that skills are aspects of behavior that can be learned through practice used to meet work demands (Ronald Listio, 2010b).

## Type of Competency

Spencer and Spencer classify the dimensions and components of individual competencies into three namely: intellectual competence, emotional competence and social competence (Ronald Listio, 2010b). It seems that Spencer and Spencer have looked at the competency component from aspects of the individual human dimension and interpersonal relationships but have not yet included the spiritual competency component.

An explanation of the competency component according to Spencer and Spencer is as follows (Ronald Listio, 2010b):

### 1) Intellectual Competence

Intellectual competence is the character of attitudes and behavior or the intellectual will and ability of individuals, can be in the form of knowledge, skills and understanding that are relatively stable when facing problems in the workplace that are formed from the synergy between character, self-concept, internal motivation and the capacity of contextual knowledge (Nahapiet and Ghoshal). Zohar and Marshall explained that intellectual competence is the ability and will associated with problem solving that is rational or strategic. Robbins and Judge also said that intellectual competence is the ability needed to carry out mental activities (Ronald Listio, 2010b).

Intellectual international are internalized in the form of nine competencies (Spencer and Spencer), namely achievement, job certainty, initiative, mastery of information, analytic thinking, conceptual thinking, practical skills, linguistic abilities, and narrative abilities (Ronald Listio, 2010b).

### 2) Emotional Competence

Emotional competence is the character of attitude and behavior or willingness and ability to master themselves and understand the environment objectively so that their emotions are relatively stable when facing various workplace problems that are formed through the synergy between character, self-concept, internal motivation and mental knowledge capacity (Spencer & Spencer) (Ronald Listio, 2010b). Individual emotional competence is internalized in the form of six levels of will and ability, namely sensitivity or mutual understanding, concern for customer satisfaction both internal and external, self-control, self-confidence, adaptability and commitment to the organization.

### 3) Social Competence

Social competence is the character of attitude and behavior or willingness and ability to build cooperation nodes with others that are relatively stable when facing problems in the workplace that are formed through the synergy between character, self-concept, internal motivation and social knowledge capacity (Imam Sugeng) (Ronald Listio, 2010b).

Internalized individual social competencies in the form of seven levels of will and ability (Spencer & Spencer) (Ronald Listio, 2010b), are influence and impact, organizational awareness, building work relationships, developing others, directing subordinates, group leadership.

## Thinking Framework

Regarding the framework of thought in this study, the author tries to make a simple picture of the framework of thought.

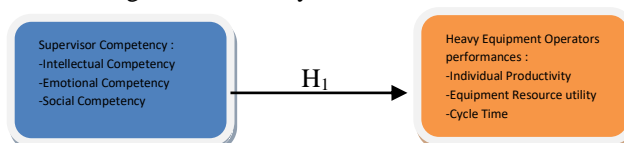


Figure 1. Thinking Framework

Source : (Sumbogo & DipoSumarto, 2017)

### Research Hypothesis

Based on the picture of the above framework, the author tries to conclude temporarily through the following hypothesis:

H<sub>1</sub>: Production Supervisory Competence influences the Performance of Heavy Equipment Operators.

Dimensions that will be measured on the Production Supervisory Competence variable are Intellectual Competency, Emotional Competency and Social Competency, while the dimensions to be measured on the variable Performance of Heavy Equipment Operators are Individual Productivity, Equipment Resources utility and Cycle Time.

### III. RESEARCH METHODS

The research method used is descriptive analysis with data collection using a census system through questionnaires. Respondents filling the questionnaire in this study were divided into 2 categories: supervisors as superiors totaling 14 people and heavy equipment operators as subordinates totaling 125 people.

#### Validity Test

Validity test is useful to know the extent to which a measuring instrument is really measuring what will be measured. The correlation technique applied in this research is Person Product Moment Correlation. The Equation Formulas (Sumbogo & DipoSumarto, 2017) are:

$$r_{count} = \frac{n(\sum XY) - (\sum X)(\sum Y)}{\sqrt{[n(\sum X^2) - (\sum X)^2] \cdot [n(\sum Y^2) - (\sum Y)^2]}}$$

Where :

$r_{count}$	= Correlation Coefficient, its value $-1 \leq r \leq 1$
$X$	= Independent variable
$Y$	= Dependent variable
$n$	= respondents

#### Reliability Test

Reliability test is used to show the stability or consistency of the measurement results of an instrument (Sumbogo & DipoSumarto, 2017). The reliability testing technique with more than 2 answers as in this study uses the Cronbach's Alpha method, with the following formula:

$$r_{11} = \left[ \frac{k}{k-1} \right] \left[ 1 - \frac{\sum Si}{St} \right]$$

Where :

$r_{11}$	= reliability value
$k$	= number of questions
$Si$	= variance score for each question
$St$	= total variance

#### Hypothesis Test

The steps of hypothesis testing are carried out as follows:

##### 1. Simple Regression Analysis

Simple regression analysis examines the relationship of one independent variable with a dependent variable from a predetermined research operational variable. The simple regression analysis equation (Sumbogo & DipoSumarto, 2017) is:  $Y = A + Bx$ ; where  $Y$  is the dependent variable,  $A$  is a constant and  $B$  is the regression coefficient.

##### 2. Significance of Partial Correlation Coefficients test (t test)

Used to determine the effect of partially independent variables on the dependent variable. This test is carried out using a significance level of 5% (SE, MM, 2019).

##### 3. Determination Coefficient test ( $r^2$ )

Testing the coefficient of determination is used to determine the effect of the independent / independent variable on the dependent / dependent variable in percentage (Andrian, 2018).

##### 4. Dimension Analysis

Dimension analysis is an analysis conducted to be able to find out the relationship or correlation between dimensions between the independent variables and the dependent variable, for this reason a correlation matrix or dimension relationship between variables is needed as follows:

**Table 1. DimensionCorrelation Matrix betweenVariables**

Variable	Variable	Heavy Equipment Operators Performance		
	Dimension	Y <sub>1</sub>	Y <sub>2</sub>	Y <sub>3</sub>
Production Supervisory Competency	X <sub>1.1</sub>	X <sub>1.1</sub> Y <sub>1</sub>	X <sub>1.1</sub> Y <sub>2</sub>	X <sub>1.1</sub> Y <sub>3</sub>
	X <sub>1.2</sub>	X <sub>1.2</sub> Y <sub>1</sub>	X <sub>1.2</sub> Y <sub>2</sub>	X <sub>1.2</sub> Y <sub>3</sub>
	X <sub>1.3</sub>	X <sub>1.3</sub> Y <sub>1</sub>	X <sub>1.3</sub> Y <sub>2</sub>	X <sub>1.3</sub> Y <sub>3</sub>

Source: (Sumbogo &Diposumarto, 2017)

#### DimensionDescription:

X<sub>1.1</sub> : IntellectualCompetency

X<sub>1.2</sub> : Emotional Competency

X<sub>1.3</sub> : Social Competency

Y<sub>1</sub> : IndividualProductivity

Y<sub>2</sub> : Equipment Resources utility

Y<sub>3</sub> : Cycle time

rx<sub>1.1</sub>y<sub>1</sub> : Correlation of Intellectual Competency Dimensions with Individual Productivity Dimensions

rx<sub>1.1</sub>y<sub>2</sub> : Correlation of Dimensions of Intellectual Competence with Dimensions of Utilization of Resource

rx<sub>1.1</sub>y<sub>3</sub> : Correlation of Intellectual Competency Dimensions with Cycle Time Dimensions

rx<sub>1.2</sub>y<sub>1</sub> : Correlation of the Emotional Competency Dimensions with the Individual Productivity Dimensions

rx<sub>1.2</sub>y<sub>2</sub> : Correlation of the Emotional Competency Dimensions with the Resource Utilization Dimensions

rx<sub>1.2</sub>y<sub>3</sub> : Correlation of Emotional Competency Dimensions with Cycle Time Dimensions

rx<sub>1.3</sub>y<sub>1</sub> : Correlation of the Dimensions of Social Competence with the Dimensions of Individual Productivity

rx<sub>1.3</sub>y<sub>2</sub> : Correlation of Dimensions of Social Competence with Dimensions of Utilization of Resource Tools

rx<sub>1.3</sub>y<sub>3</sub> : Correlation of Social Competency Dimensions with Cycle Time Dimensions

## IV.DISCUSSION

### Simple Regression Equation

The results of the research conducted showed that from the results of a simple regression test produces the Regression equation  $Y = 0.706 + 0.063 X_1$ , or can be interpreted as: Performance of Heavy Equipment Operators =  $0.706 + 0.063$  Production Supervisory Competencies.

From the regression equation, it can be seen that the regression coefficient value of the supervisory leadership behavior variable is 0.063, it can be interpreted that if there is an increase in the competency of the production supervisor (X<sub>1</sub>) it will result in an increase in the performance of the heavy equipment operator (Y) by 0.063 X<sub>1</sub>. Therefore to improve the performance of heavy equipment operators, the supervisor of production as his superiors must increase his competence, namely intellectual competence which is the character of attitude and behavior or intellectual willingness and ability which can be in the form of knowledge, skills and understanding that are relatively stable when facing problems in the workplace. Then emotional competence which is the character of attitude and behavior or willingness and ability to master oneself and understand the environment objectively. Next is the social competence which is the character of attitude and behavior or willingness and ability to build the nodes of cooperation with others.

### Dimention Analysis

To determine the strength or weakness of the influence between the dimensions of the production supervisor competency variable on the dimensions of the heavy equipment operator performance variable is shown in the following table:

**Table 2. DimensionCorrelation Data betweenVariables**

Variable	Variable	Heavy Equipment Operators Performance		
	Dimension	Y <sub>1</sub>	Y <sub>2</sub>	Y <sub>3</sub>
Production Supervisory Competency	X <sub>1.1</sub>	0,339	0,161	0,343
	X <sub>1.2</sub>	0,326	0,232	0,338
	X <sub>1.3</sub>	0,345	0,247	<b>0,352</b>

Source :ProcessedPrimary Data (2019)

In table 2 above that the correlation between dimensions on the production supervisory competency variable (X1) on the performance of heavy equipment operators (Y), that the largest correlation value on the dimension of social competence (X1.3) to the cycle time dimension (Y3) is equal to 0.352, although including low or weak category correlations. A production supervisor who has good social competence will always build cooperation with heavy equipment operators well and can play the role of a leader as well as an example for subordinates in the work area, will always invite and encourage subordinates to do work with targets that must be achieved as planned so that the work process carried out by heavy equipment operators can be carried out on time even faster.

Correlation value of the dimensions of intellectual competence (X1.1) to the utilization of available tool resources (Y2) is very low or very weak at 0.161, this is because the intellectual competency of a production supervisor is not often used to support the use of tool resources by heavy equipment operators. Intellectual competence is only used when setting the position of heavy equipment operators with the equipment being operated, and this activity is only carried out by a production supervisor, that is a manpower supervisor, and is not carried out at any time.

## V.CONCLUSION

Based on the analysis of data tests conducted, in this study the conclusion that can be drawn is the competency of the production supervisor has a positive and significant effect on the performance of heavy equipment operators at PT. Riung Mitra Lestari. The social competency dimension of the production supervisor is the most influential factor to be able to improve the performance of heavy equipment operators, but is included in the category of weak relationship strength, so that the production supervisory competency variable is not effective enough to improve the performance of heavy equipment operators.

Although the competency of production supervisors has a low or weak correlation, competency can influence production supervisors in carrying out their leadership behaviors such as managing and fostering subordinates. Production supervisors must have high social competence, which is able to build and maintain good cooperation with heavy equipment operators, provide feedback on the performance of heavy equipment operators, propose to attend training to improve their expertise for heavy equipment operators, be able to set an example for operators heavy equipment that became his subordinate.

## REFERENCES

- [1] Andrian, A. (2018). Dampak Promosi, Brand Awareness Dan Pemilihan Saluran Distribusi Terhadap Keputusan Pembelian Produk Obat Sakit Kepala. *Jurnal Riset Manajemen Dan Bisnis (JRMB) Fakultas Ekonomi UNIAT*, 3(2), 165–174. <https://doi.org/10.36226/jrmb.v3i2.109>
- [2] Meilani D. (2008). perancangan profil kompetensi lunak jabatan dan karyawan dalam peningkatan kinerja perusahaan (studi kasus di departemen tambang pt. semen padang). *Jurnal Sistem Industri*, 7(2), 75–90.
- [3] Robbins, S. P. (2006). *Perilaku Organisasi* Jakarta: *Indeks Kelompok Gramedia*. <https://doi.org/10.1006/jmbi.1999.3279>
- [4] Ronald Listio. (2010a). *Pengaruh Kompetensi dan Motivasi Kerja Terhadap Kinerja Karyawan PT Allianz Life Indonesia Jawa Barat*. Universitas Komputer Indonesia.
- [5] Ronald Listio. (2010b). *Pengaruh Kompetensi dan Motivasi Kerja Terhadap Kinerja Karyawan PT Allianz Life Indonesia Jawa Barat*. Universitas Komputer Indonesia, Bandung.
- [6] SE,MM, A. (2019). Digital Marketing dan Ragam Produk pada Minat Beli Konsumen Toko Online Shopee (Studi Kasus pada Mahasiswa Prodi Manajemen Fakultas Ekonomi Universitas Bhayangkara Jakarta Raya Angkatan 2016). *Ekspektra: Jurnal Bisnis Dan Manajemen*, 3(1), 14. <https://doi.org/10.25139/ekt.v3i1.1430>
- [7] Sumbogo, I. A., & Diposumarto, N. S. (2017). PENGARUH KOMPETENSI DAN PELATIHAN TERHADAP KINERJA REPORTER, DENGAN MOTIVASI SEBAGAI VARIABEL MEDIASI DI PT SWC. *Jurnal Riset Manajemen Dan Bisnis (JRMB) Fakultas Ekonomi UNIAT*. <https://doi.org/10.36226/jrmb.v2i3.66>
- [8] Wibowo. (2011). *manajemen kinerja*. Jakarta: Rajawali Pers.
- [9] Winanti, M. B. (2011). Pengaruh Kompetensi Terhadap Kinerja Karyawan (Survei Pada Pt. Frisian Flag Indonesia Wilayah Jawa Barat). *Majalah Ilmiah UNIKOM*.