

Effect of Compensation on Productivity and the Mediating Role of Competence on the Effect of Employee Training on Productivity

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ABSTRACT--Human resources are the most important assets in an organization. Therefore, the factors that influence its productivity need to be examined. This research aims to examine: 1) the effect of compensation and employee training on productivity, and 2) the mediating role of competence on the effect of employee training on productivity. This research is a case study at the General Directorate of Oil and Gas, Ministry of Energy and Mineral Resources, Republic of Indonesia. The sample of employees is 150 people. The data used are primary data obtained by giving questionnaires to respondents. Designing an instrument to measure variables uses Likert scale. The research findings show that 1) compensation and employee training have a positive effect on productivity, 2) employee training has a positive effect on competence, and 3) competence has a positive effect on productivity. Therefore, competence partially mediates the effect of employee training on productivity.

Keywords-- Competence, compensation, productivity and training

I. INTRODUCTION

This research is a case study in the Directorate General of Oil and Gas, Ministry of Energy and Mineral Resources, Republic of Indonesia. Considerations for choosing this case study are as follows. The oil and gas industry requires more competent human resources. The competence is in the form of special expertise to use equipment as work facilities as well as information regarding the availability of natural resources to be mined as well as the natural conditions themselves. Oil and gas is one of the important branches of production for a country whose authority must be given to the country. Oil and gas are branches of energy production that control the lives of many people. In addition, oil and gas are: 1) strategic natural resources and 2) vital commodities that have an important role in the national economy. Therefore, management must be good and need human resources that have high productivity, and research on the factors that affect these productivity needs to be examined carefully. Many factors affect employee productivity but the research in this case only examines compensation, employee training and employee competency as factors that influence it.

Compensation is one of the factors that influence work productivity. Compensation is one of the main reasons and motivations for why employees work (Ganta, 2014). They use the knowledge, skills, time given to the organization by expecting a reward or remuneration from the results of their productivity and the resulting performance. Compensation provided to employees is closely related to the performance that will be generated by the employee. Employees with high levels of productivity tend to want high compensation too. An employee gets a good compensation then it will produce good productivity too (Mondy, 1993).

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Training for employees is also a factor affecting employee productivity (Hartanto, Razak, and Silitonga, 2018). Training is a systematic process of organization to develop skills, abilities, knowledge, or attitudes that can change employee behavior to attain organizational objectives that have been applied. In fact, training is a shared responsibility between employees and the organization. Employees are obliged to design and participate in training to develop their abilities so that their work career is better. Conversely, the organization is also very interested in organizing training for its employees. They are expected to work professionally, passionately, and highly dedicated so that they can optimize their performance through productivity. High employee performance will improve the performance of the group or its part. A good performance part will certainly improve organizational performance. Training is also a means for employees to increase their abilities and increase their knowledge and skills. With the training, employees will be provided with knowledge and information available so that the employee has competence. Increased competence will be accompanied by increased responsibility so that productivity will increase as well (Alsabbah and Ibrahim, 2016).

Competence is an capability to carry out or carry out a job or task oriented on skills and knowledge and is hold up by the work attitude needed by the job. Competence is a skill or skill possessed by someone and is able to apply it at work. One method to improve the quality of employee performance is to provide training. The aim is to provide additional capabilities to employees to improve the quality of their performance results for the better. By providing regular training, the ability of employees will increase. Along with that, employee productivity or performance will also increase.

Refer to the description above, the main of the problem of this research are: 1) Does compensation have a positive effect on employee productivity, 2) Does employee training have a positive effect on productivity, 3) Does training for employee have a positive effect on competence, and 4) Does competence have a positive effect on productivity. The purpose of this study was to test the effect of compensation on productivity and examine the role of compensation as mediation on the effect of training for employee on productivity. The main contribution of this research is to understand the importance of compensation, employee training and employee competencies in increasing employee productivity.

II. LITERATURE REVIEW

This study examines compensation, employee training, employee competency as factors that influence employee productivity. Productivity is measured by output divided by input. Input is often limited by labor, while output is represented by physical unity, form, and value. Productivity is a working relationship between the number of products produced and the amount of resources needed to produce these products (Kaphang, 2014). Basically productivity includes a patriotic mental attitude that looks forward optimistically with roots in self-confidence that life today is better than yesterday and tomorrow is better than today.

Compensation is rewards provided by the organization to employees because the employee has contributed support and thoughts for the progress of the organization to achieve the goals set. In a simple sense, compensation is something that employees get in exchange for their service contribution to the organization. If managed properly, compensation helps the organization get its goals and naturally the organization can obtain, maintain, and maintain

employees properly. Conversely, without fair compensation, they are very likely to leave the organization, and the organization will get it difficult to recruit new employees as needed.

The higher compensation provided by the organization causes the better productivity of its employees, because the organization also requests a match between compensation given and productivity, or suitability between compensation and the many contributions of employees to the organization (Wangsadinata, 2014). Refer to the description above, the hypothesis be as follows:

H1: Compensation has a positive effect on productivity

Training is a process in which people strive to achieve certain abilities to help achieve organizational goals. Simply stated, training provides employees with specific knowledge and skills used in their current work (Wibowo, 2013).

In the oil and gas industry, training is very much needed to increase employee productivity in terms of working hours and the results obtained (Nda and Fard, 2013; Monizsya, 2016). The more employees are given training, the higher the productivity (Hartanto, Razak, and Silitonga, 2018). Refer to the description above, the second hypothesis is as follows:

H2: Employee training has a positive effect on productivity

Competence is an capability to carry out or do a job or task oriented on skills and knowledge and is supported by the work attitude demanded by the job (Wibowo, 2010). Thus, competence is the skills or knowledge that are characterized by professionalism in a particular field and is applied in order to increase the agreed benefits. Competence also represent the characteristics of knowledge and skills possessed or required by each individual that makes them able to perform their assignments and responsibilities.

Competence is an action or behavior that can be measured through a combination of knowledge, expertise and ability to do something. Competence represent in the context of the task and is influenced by organizational culture and work environment. Competence consists of a combination of knowledge, expertise and abilities needed to complete tasks and functions in the workplace. Competence is the primary foundation of people's characteristics and indicates how to act or think, equate conditions, and keep up for long periods of time (Gultom 2014)

Expected competencies in oil and gas organizations are skills that must be possessed specifically by employees when in the field such as drilling, measuring oil pressure, and re-closing drilled wells. The more frequent the training, the employee's competency will increase. Refer to the description above, the hypothesis be formulated as follows:

H3: Employee training has a positive effect on competence

The organizational success is largely determined by the human resources it has. Human resources are the most very important assets in the organization. Competent human resources will increase work productivity (Rudhaliawan, 2014) so that organizational goals can be achieved (Wangsadinata, 2014). Employees who have high competence directly also have high productivity as well. Refer to the description above, the hypothesis be formulated as follows:

H4: Competence has a positive effect on employee productivity

Alsabbah and Ibrahim (2016) find that competence mediates the effect of training on productivity . Refers to H3 that training has a positive effect on competence, and H4 that competence has a positive effect on productivity. If H2 is not proven, that is, training has no direct effect on productivity, then competence fully mediates the effect

of training for employee on productivity. If H2, H3, and H4 are proven, then competence partially mediates the effect of training on productivity. Refer to the description, the following hypothesis is formulated:

H5. Competence mediates the effect of employee training on productivity.

Refer to the description above, this research model is as follows.

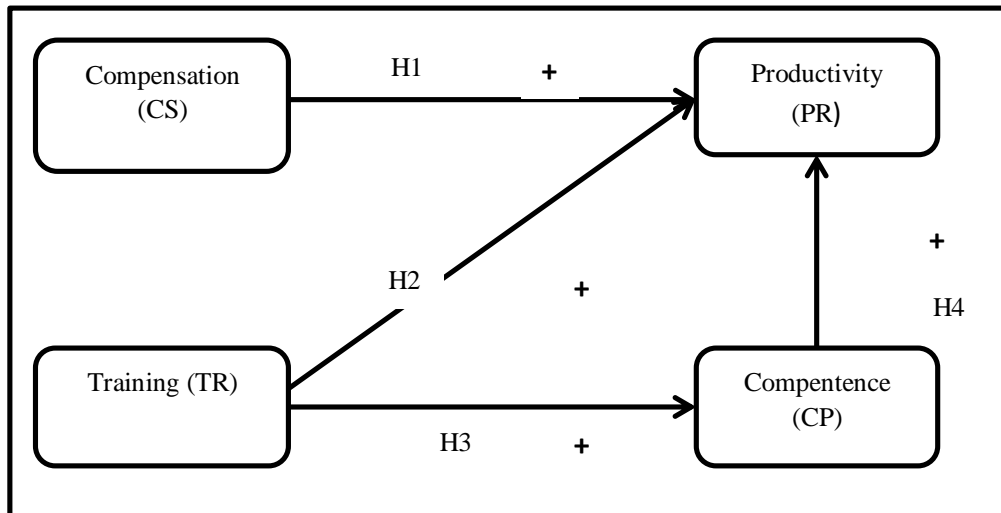


Figure 1: Research Model

III. METHODOLOGY

3.1 Data Sources

This research is a case study at the Ministry of Energy and Mineral Resources, Directorate General of Oil and Gas. Employees who work in this institution are selected by purposive sampling, and the number of selected employees is 150 people. The data took in this study are primary data. This data is obtained through a questionnaire consisting of respondents' answers about indicators of variables: compensation, employee training, competence and productivity. The questionnaire is distributed directly to the employees.

In the questionnaire, the preparation of instruments for the measured variables is made in the form of positive and negative statements so that respondents can answer seriously and consistently. The questionnaire was made using a Likert scale, which is a measurement scale using an alternative choice between 1 to 5 with the following provisions: (1) the answers strongly agree have a weighting score of 5; (2) the agreed answer has a score of 4; (3) neutral answers have a score weight of 3; (4) disagree answers have a score weight of 2; also (5) the answer strongly disagrees with a weighting score of 1.

3.2 Research Instruments and Analysis Tools

This study examines the research instrument with the validity and reliability test. Validity test is done based on the factor loading value. Reliability tests were carried out based on Cronbach's alpha values. The greater the value of Cronbach's alpha shows the better the research instrument. The Partial Least Square (PLS) analysis model used in this study follows a variant-based structural equation model (SEM) that could simultaneously test measurement models.

IV. RESULTS AND FINDINGS

The results of this study present the results of the validity test, reliability test, descriptive data analysis and hypothesis testing. In this study the research instruments in the form of question items are declared valid if they have a loading factor greater than 0.5 (Ghozali, 2013). If the loading factor is smaller than 0.5, it can be interpreted that the question items in the questionnaire are not understood by respondents during the filling process . Table 1 describes the results of the validity analysis. There are question items in the questionnaire that are valid and some are invalid. Only valid question items are then used to make descriptive data analysis and hypothesis testing. Otherwise, invalid question items are no longer used.

Table 1: Validity Test Results

Variables	Item		
	Statement	Item Questions Valid	Item Questions Invalid
Compensation (CS)	CS1 to CS8	CS1, C2, CS4, CS5, CS	CS3, CS6 and CS7
Employee training (TR)	TR1 to TR7	TR1 and TR4	TR2, TR3, TR5 and TR6
Competence (CP)	CP1 to CP9	CP1, CP3 and CP9	CP2, CP4, CP6, CP7 and CP8
Employee productivity (PR)	PR1 to PR9	PR6 and PR9	PR1, PR2, PR3, PR4, PR5, PR7 and PR8

The research instrument used to measure a variable is stated to be reliable if it has a Cronbach's alpha value ≥ 0.6 (Ghozali, 2013). In Table 2, the results of the reliability analysis show that the instrument for measuring employee productivity variables is reliable because it has a Cronbach's alpha value > 0.6 . However, instruments to measure compensation, training, and competence variables are not reliable because Cronbach's alpha is less than 6.

Table 2: Reliability Test Results

No.	variables	<i>Cronbach's Alpha</i>	Category
1	Compensation (CS)	0.526	low reliability
2	Employee training (TR)	0.532	low reliability
3	Employees competence (CP)	0.449	low reliability
4	Employee productivity (PR)	0.632	high reliability

The results of the descriptive statistical analysis of this study use the average value of the answers of all respondents on each indicator with a range of scores from 1 to 5. The average value of the compensation variable

= 3.91, training, = 3.90, competence = 3.92 and productivity = 3.71. All had scores of more than 3 and therefore the descriptive data is stated to be good because most of the results were above average.

The results of the hypothesis testing are shown in Table 3 and Figure 2 below. The beta coefficient (β) shows the effect of a variable on other variables and the probability value (p) shows the level of significance. The values of β and p for H1, H2, H3 and H4 are seen both in Table 3 and Figure 2.

Table 3: Hypothesis Testing Results

No.	Hypothesis	β	p	Information
1	H1: Compensation has a positive effect on employee productivity	0.26	<0.01	The hypothesis is supported
2	H2: Employee training has a positive effect on productivity	0.02	<0.01	The hypothesis is supported
3	H3: Training for employee has a positive effect on competence	0.49	<0.01	The hypothesis is supported
4	H4: Competence has a positive effect on employee productivity	0.24	<0.01	The hypothesis is supported
5	H5: Competence mediates the effect of employee training on productivity.			The hypothesis is supported

H1 (the first hypothesis) which states that compensation has a positive effect on productivity is supported because $\beta = 0.26$ and $p < 0.1$. Therefore, compensation is important as a supporting factor for increasing employee productivity, because employees will feel the performance results are appreciated by the organization. Compensation can also cause positive motivation to encourage someone's performance to improve and be better (Kelechi, N.G et al. , 2016)..

H2 (the second hypothesis) which presents that training for employee has a positive effect on employee productivity is supported because $\beta = 0.20$ and $p < 0.1$. The training provided by the organization is very encouraging to increase employee performance results because the abilities and expertise of these employees will increase. As well as conducting training also influences employee confidence in carrying out their duties.

H3 (the third hypothesis) which states that employee training has a positive effect on employee competency is supported because $\beta = 0.49$ and $p < 0.1$. Training of employees will add to their expertise so that if there is a new job, employees are easier to adjust and carry out their duties properly.

H4 (the fourth hypothesis) which states that competence has a positive effect on productivity is supported because $\beta = 0.24$ and $p < 0.1$. Increasing the capabilities and skills of employees, employees will be more skilled in carrying out their duties. Of course, it will also affect the performance results which will be better because employees have sufficient abilities.

As explained above it states that H2, H3, and H4 are supported. Because all three hypotheses are supported, H5 is supported. The support of H5 is in type, competence partially mediates the positive influence of employee training on productivity (Baron & Kenny, 1986).. This finding is consistent with the results of a study conducted by Alsabbah and Ibrahim (20016) that competence is a mediator of the effect of training on employee productivity.

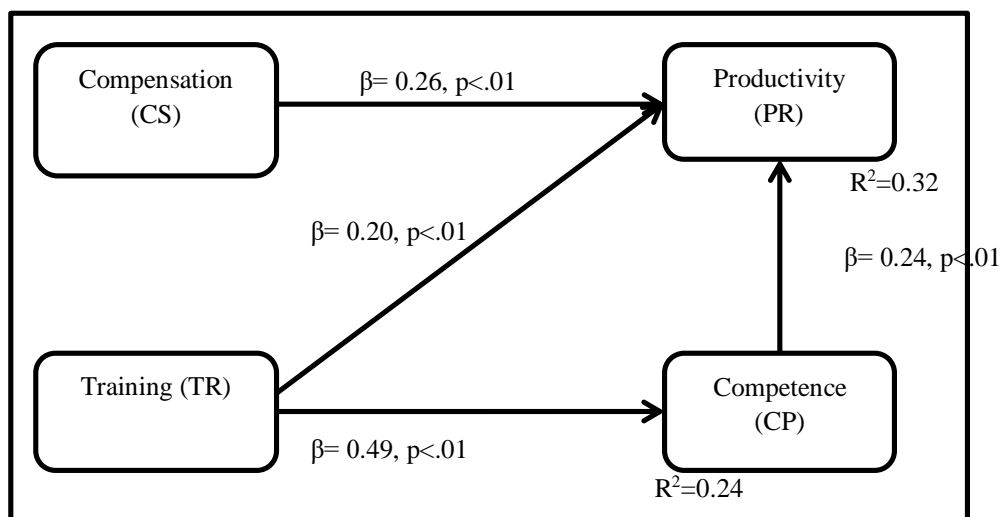


Figure 2: Hypothesis Testing Results

Figure 2 shows that the relationship of training effect on competence has a coefficient of determination (R^2) of 0.24. That is, variations in the value of influence that can be explained by the training variable by 24%, while the remaining 76% variation in the value of competence is influenced by other variables besides training. The relationship between the effect of compensation, training and competence on productivity has a coefficient of determination (R^2) of 0.32. That is, the variation in the value of the influence explained by compensation, training, and competence is 32%, while the remaining 68% variation in the value of productivity is influenced by other variables apart from the three variables.

V. CONCLUSION

The conclusion of this research is as follows. First, compensation has a positive effect on productivity. This means that, compensation is important as a supporting factor for increasing productivity, because someone will feel the performance results are appreciated by the organization. Compensation can also cause positive motivation to encourage someone's performance to improve and be better. Second, training for employee has a positive effect on productivity. The training provided by the organization is very encouraging to increase employee performance results because the abilities and expertise of these employees will increase. As well as conducting training also influences employee confidence in carrying out their duties. Third, employee training has a positive effect on competence. Training of employees will add to their expertise so that if there is a new job, employees are easier to adjust and carry out their duties properly. Fourth, competence has a positive effect on productivity. With the increased ability and skills they have, employees will be more skilled in carrying out their duties and the results of their performance will be better. Fifth or finally, competence partially mediates the positive effect of employee training on productivity. Therefore, in this case study, all hypotheses are proven. Efforts to increase employee productivity at the Directorate General of Oil and Gas, the Ministry of Energy and Mineral Resources, Republic of Indonesia can be done by improving a better system of compensation, training, and employee competence.

The limitations and suggestions in this study are as follows. First, researchers can then add several variables to measure employee productivity, such as organizational culture, career development or levels, and facilities that

support employee performance. Second, researchers can then add demographic analysis by grouping more specific departments, such as salaries, and work departments. Third, finally, because the research instrument for measuring compensation, training, and competence variables has low reliability, the researcher does not recommend using the same questionnaire in subsequent studies.

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