# The Impact of Competency Certification on Workers

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**Abstract.** This research aims to analyze whether there are differences in the characteristics of workers who have competency certificates and those who do not have certificate. The sample in this study consisted of: workers who have competency certificates from LSP are 85 people while workers who do not have competency certificates are 79 people. MANOVA analysis (Multivariate Analysis of Variance) is used to answer the question whether there are differences in the characteristics of workers who have a competency certificate and those who do not have a competency certificate. It can be seen that competence has a significant effect on the variables  $Y_4$ ,  $Y_5$ ,  $Y_6$  and  $Y_7$ . This can be seen from the significance test value which is smaller than 0.05. These variables are:  $Y_4$  = Competency certification gives confidence in completing tasks;  $Y_5$  = Always applies the knowledge possessed in carrying out the assignment;  $Y_6$  = Very skilled in technical work;  $Y_7$  = Being able to learn the task in a short time before it is done.

Keyword: Competency standard · LSP · Manova

### 1 Introduction

In the 2005-2025 Long-Term Development Plan, improving the quality of human resources (HR) is one of the focuses of development. The large number of Indonesian workers, if quality and utilization can be optimized, it will be a strong base capital for development in driving economic growth and national competitiveness in the domestic and global market. Thus, all institutions related to improving the quality of human resources in various sectors and regions, need to be optimized for their use and synergized with their program activities.

Improving the quality of human resources related to aspects of education and competence, has been regulated in Law No.20 of 2003 concerning National Education and Law No. 13 of 2003 concerning Labor. Both of these laws mandate competency-based human resource quality improvement. Based on Government Regulation No. 23/2004, the National Professional Certification Agency (BNSP) has the task of carrying out competency certification as an integral part of the system that functions downstream and ensures labor competency, which in its implementation is carried out through licensing to the Professional Certification Institute (LSP).

In developing a competency-based workforce there are three main pillars namely national work competency standards, competency-based training programs and competency certification (Figure 1). Competency standards reflect the needs of the job

market created by the Business World / Industrial World (DUDI). Competency-based standardized education/training program to produce students / trainees who master the competencies created by education and training institutions. Competency certification refers to competency standards to ensure the competencies of students / trainees implemented by LSP.

The challenges in the era of globalization and competitive markets, demand competitiveness in the form of human resource development. Competency certification is one of the important factors in supporting company productivity and competitive advantage. HR development is a demand for every organization to align training programs with organizational strategies. In addition, the development of human resources requires a synergic blend of aspects of learning and aspects of performance To realize efforts to improve learning and performance, a competency standard is needed.

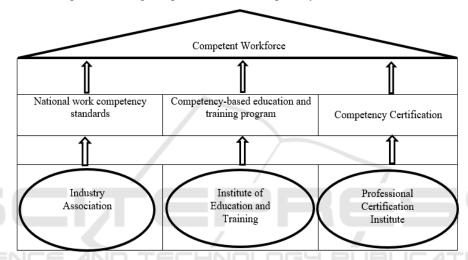


Fig. 1. Pillars of competency-based workforce development.

The issue of certification is hotly discussed by various groups, especially those involved in the professional development process of education, health, finance, government and society. The issue of certification is one of the methods used to develop quality or the quality of human resources. HR competency development is increasingly needed to be able to compete in the global era. In order to compete in the industry, competency improvement is needed both in terms of human resources (HR) and organization. HR practitioners are required to further enhance professionalism in managing HR in the organization. HR must have competence according to the established standards (Law 13 of 2003) that work competency is the work ability of every individual which includes aspects of knowledge, skills and work attitudes.

This study aims to analyze whether there are differences in the characteristics of workers who have a competency certificate and those who do not have a certificate. Research hypothesis:

 $H_0$ : The average variable  $Y_{1,2 \dots 11}$  shows no difference in the X variable

 $H_1$ : The average variable  $Y_{1,2...11}$  shows the difference in the X variable

Decision criteria if the numbers sig. > 0.05, then  $H_0$  is accepted if the number sig. < 0.05, then  $H_0$  is rejected.

### 2 Literature Review

The advantages of obtaining competency certification according to [1], for companies:

1. Facilitate recruitment and selection personnel; 2. Facilitate placement and assignment; 3. Facilitate remunesation settings; and compensation; 4. Easy arrangement career development and education and training; 5. Increase company productivity; 6. Improve safety in place work; for labor: 1. Increase mobility and competitiveness; 2. Increase recognition of competence possessed; 3. Improve career prospects; 4. Improve personal safety labor; 5. Increase self-confidence and pride in the profession; for the government and the community: 1. Increase effectiveness and efficiency job market; 2. Increase work competitiveness in the market global work; 3. Improve quality and company productivity; 4. Increase protection and labor welfare; 5. Increase effectiveness and efficiency training 6. Encouraging economic growth national and regional and 7. Reducing the unemployment rate.

Workers are assets for the nation and state, especially for those who are able to demonstrate their abilities through certification of their competence. The theory used in this research is Human Capital Theory which is a theory that believes the importance of HR for the success of an organization [2]. In the theory of Human Capital management, humans become assets or capital. Human Capital Management is an effort to manage and develop human ability to achieve higher levels of performance. The emergence of the view that knowledge as a company resource is very strategic, based on the fact that knowledge can be used to develop company competitiveness that is valuable and difficult to imitate by competitors and not replaced by other resources. With the knowledge possessed by an organization or the knowledge through humans within it, human beings are made as visible capital (Human Capital). In its development, humans are not only used as one of the resources but also as a driver of resources. Thus, resources that are competent and appropriate to the job or position given to them so as to produce optimal performance, need to be prepared.

Some research on competencies has been carried out, according to [3] the knowledge management process mediates the relationship between IT competence and market performance. Furthermore, a study conducted by [4] shows the positive influence of the role of human resource competencies on employee job satisfaction in the telecommunications sector of Islamabad and Rawalpindi, Pakistan. Findings [5] reveal that there is a positive relationship between competence and individual performance. The results of the study [6] shows that the implementation of competency-based human resource management, knowledge management, organizational culture and organizational performance has been well achieved. Furthermore [7] states that the use of competency frameworks as a basis for workplace learning initiatives has been applied in organizations in general.

Research results [8] shows that by investing in the development of their career competencies, employees contribute to organizational culture, abilities, and connections. Furthermore, research conducted [9] aims to determine the effect of training, competence and motivation on employee performance at the Social Security

Agency for workers (BPJS Employment) in the Banten region of Indonesia. The results of this study concluded the coefficient of determination is explained by competence, training, and motivation. Two main meanings of the term competency have been identified by [10], one referring to the output, or results of the training namely competent performance. Other definitions that refer to the inputs, or underlying attributes, are needed for someone to achieve competent performance.

## 3 Research Methodology

To answer the question whether there are differences in the characteristics of workers who have a competency certificate and those who do not have a competency certificate, MANOVA (Multivariate Analysis of Variance) analysis is used. MANOVA is the development of ANOVA, which is a statistical method for analyzing the relationship between several independent variables and some dependent variables. The characteristic of MANOVA is that the independent variable can be more than one or one, but the dependent variable must be more than one. In MANOVA Analysis, the analysis conducted must meet the following assumptions: assumptions of multivariate normal distribution of data, homogeneity of covariance variance matrices, and the correlation between variables used.

for X and Y variables individually

- For factor X
- $X_0$  = workers who do not have competency certification
- $X_1$  = workers who have competency certification
  - For the Y factor
- $Y_1$  = my knowledge increased when I worked in this field
- Y<sub>2</sub> = I already have enough knowledge to carry out the work
  - $Y_3 = I$  can analyze my work
  - Y<sub>4</sub> = competency certification that I have gives me confidence in completing assignments
  - $Y_5$  = I always apply the knowledge I have in carrying out my assignments
  - $Y_6$  = I am very good at technical work
  - $Y_7$  = I am able to learn the task in a short time before it is done
  - $Y_8$  = I am able to complete the task faster than the specified target
  - $Y_9 = I$  can always achieve more than 100% of the work target specified
  - $Y_{10}$  = I always correct work before submitting it to my supervisor
  - $Y_{11} = I$  dare to make decisions related to my workresearch methodology

The research took place in the provinces of East Java, Central Java, West Java and DKI Jakarta with the consideration that in these four regions competency certification was more developed as indicated by the highest number of LSPs (Lembaga Sertifikasi Profesi) in the four provinces. The time used in research between April and September 2018. The sample in this study consisted of: workers who have competency certificates are 85 people while workers who do not have competency certificates are 79 people.

The sampling technique uses a purposive sampling. This technique is also known as non-random sampling technique, which is not random sampling.

### 4 Research Result

The company wants its employees to show their best performance. This can be realized if the company has employees with the best competencies and places them according to their competencies. Thus, analysis is needed to see the effect of competence on employee characteristics. The following can be seen the results of statistical analysis using the Manova Model to find out whether there are differences in characteristics between employees who have a competency certificate and those who do not have a competency certificate.

Table 1. Variable codes in data processing.

Variable Codes	Value Label	N
0	Not Having a Certificate	79
1	Having a Competency Certificate	85

Table 2. Box's test equality of covariance Matrices.

Box's M	86.441
F	1.216
df1	66
df2	82760.023
Sig.	.111

Tests the null hypothesis that the observed covariance matrices of the dependent variables are equal across groups.

Table 3. Multivariate significance test.

Effect		Value	F	Hypothesis df	Error df	Sig.
Intercept	Pillai's Trace	.980	684.000 <sup>b</sup>	11.000	152.000	.000
	Wilks' Lambda	.020	684.000 <sup>b</sup>	11.000	152.000	.000
	Hotelling's Trace	49.500	684.000 <sup>b</sup>	11.000	152.000	.000
	Roy's Largest Root	49.500	684.000 <sup>b</sup>	11.000	152.000	.000
Kompe-	Pillai's Trace	.124	1.953 <sup>b</sup>	11.000	152.000	.037
ten	Wilks' Lambda	.876	1.953 <sup>b</sup>	11.000	152.000	.037
	Hotelling's Trace	.141	1.953 <sup>b</sup>	11.000	152.000	.037
	Roy's Largest Root	.141	1.953 <sup>b</sup>	11.000	152.000	.037

a. Design: Intercept + Kompetensi

The data in Tables 1, 2, 3 and 4 are the results of data processing using SPSS software. From these results it can be seen that competence has a significant effect on the variables  $Y_4$ ,  $Y_5$ ,  $Y_6$  and  $Y_7$ . This can be seen from the significance test value which is smaller than 0.05. These variables are:  $Y_4$  = Competency certification gives confidence in completing tasks  $Y_5$  = Always applies the knowledge possessed in

b. Exact statistic

carrying out the assignment  $Y_6$  = Very skilled in technical work  $Y_7$  = Being able to learn the task in a short time before it is done

The most basic benefit of competency certification is ensuring capability in one area. To get it, there is a series of processes that must be passed, which requires a person to have certain abilities, special work attitudes, and understanding in one area. The

		Type III Sum				
Source	Dependent Variable	of Squares	df	Mean Square	F	Sig.
Intercept	Y,	2399.452	1	2399.452	3259.853	.000
	Y <sub>2</sub>	1833.262	1	1833.262	2400.752	.000
	Υ,	2115.851	1	2115.851	3165.679	.000
	Y4	2112.426	1	2112.426	2777.271	.000
	Υ,	2394.214	1	2394.214	3825.006	.000
	Y <sub>4</sub>	1733.740	1	1733.740	2473.113	.000
	Y <sub>7</sub>	1945.238	1	1945.238	2588.251	.000
	Ys	2116.748	1	2116.748	2672.203	.000
	Y,	2113.895	1	2113.895	2696.864	.000
	Y10	2396.647	1	2396.647	3482.722	.000
	Yu	2399.396	1	2399.396	3161.025	.000
Kompe	Υ,	.131	1	.131	.177	.674
tency	Y <sub>2</sub>	.262	1	.262	.342	.559
	Υ,	1.071	1	1.071	1.602	.207
	Y4	4.215	1	4.215	5.541	.020
	Υ,	3.326	1	3.326	5.314	.022
	Y.	8.299	1.	8.299	11.839	.001
	Υ,	6.291	/ 1	6.291	8.370	.004
	Yı	.591	/ 1	.591	.746	.389
	Y,	2.613	/ 1	2.613	3.333	.070
	Y10	1.309	/ 1	1.309	1.903	.170
	Yu	.142	1	.142	.187	.666

Table 4. Tests of between subject effects.

process is often not easy. People who follows, it inevitably have to undergo all demands so that they are indirectly trained to be capable in one particular field. If someone is able to achieve a certificate of competence, it is certain that the person will be competent in the field they are in. Thus, the person has a plus compared to the others because it has been proven capable in one particular field of expertise.

By obtaining a certificate of competence, one's confidence can be lifted. The person becomes confident of one's own abilities in one area of expertise. Confidence factor can determine a person's future. Armed with a certificate of competence, someone will be more confident in carrying out their duties. That confidence is what ultimately can bring the best results. A person may have a special skill, but without a certificate that is owned, the ability may not necessarily be trusted by other parties. For permanent employees, proof of certification can also increase confidence in carrying out office duties. His proven ability can add confidence that he has an advantage in completing a task. It is an honor for him to be declared competent by the certification body in accordance with established standards.

### 5 Conclusion

Professional certification measures a person's ability in the occupied field. The results of competency certification test can make someone realize their skills are still lacking or according to the standard. If someone is not competent, then that person still has to

keep learning. From this research, it can be seen that competence has a significant effect on the variables  $Y_4$ ,  $Y_5$ ,  $Y_6$  and  $Y_7$ . This can be seen from the significance test value which is smaller than 0.05. These variables are:  $Y_4$  = Competency certification gives confidence in completing tasks  $Y_5$  = Always applies the knowledge possessed in carrying out the assignment  $Y_6$  = Very skilled in technical work  $Y_7$  = Being able to learn the task in a short time before it is done.

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