

# **The Relationship Between Intellectual Competence, Non-Material Incentives, Work Environment And Employee Performance**

**Harjo Lukito**

Faculty of Economics, University Mayjen Sungkono, Indonesia

Corresponding author E-mail: harjo.lukito88@gmail.com

**Article History: Received: June 18, 2022; Accepted: September 10, 2022**

## **ABSTRACT**

The goal of this study is to examine how improving intellectual competence, non-material incentives, work environment might improve employee performance. In order to gather information and examine the correlation between the variables under investigation, this study employs a quantitative approach and a sample of 67 employees at PT. Bunga Jaya Jati Bintang Mojokerto as responders. Several linear regression techniques were used to examine the data after it was collected using a questionnaire. According to the study's findings, employee performance is influenced by intellectual ability. The work environment has also been demonstrated to have a substantial impact on employee performance, and non-material incentives have been shown to have an impact on employee performance.

**Keywords:** Intellectual Competence, Non-Material Incentives, Work Environment, and Employee Performance.

## **INTRODUCTION**

Human resources are a company's most precious asset, so it is necessary to pay close attention to them in order for employees to feel secure and comfortable at work. To achieve success, a solid foundation is required, namely a corporation that is able to enhance and maximize competency. So, competency becomes highly beneficial in assisting businesses, and through boosting competence, it promotes a culture of high performance. Offering incentives and fostering a positive work environment also have a significant impact on a company's performance. Companies can maintain their human resources so that their employees feel secure and comfortable at work by offering adequate incentives and fostering a pleasant work environment. The quality of a company's human resources has a significant impact on its success. Thus, human resources occupy a very essential role. In addition, high-quality natural resources are helpful for adapting to the rapid changes in the business climate. If a corporation already has a strategy and goals, the next step is to determine the human resources required to fulfill these objectives. The definition of employee performance is the ability of employees to perform particular abilities. Sinambela (2017: 480). Ability and expertise, knowledge, work design, personality, work motivation, leadership, leadership style, organizational culture, job happiness, work environment, totality, commitment, and work discipline are characteristics that affect performance.

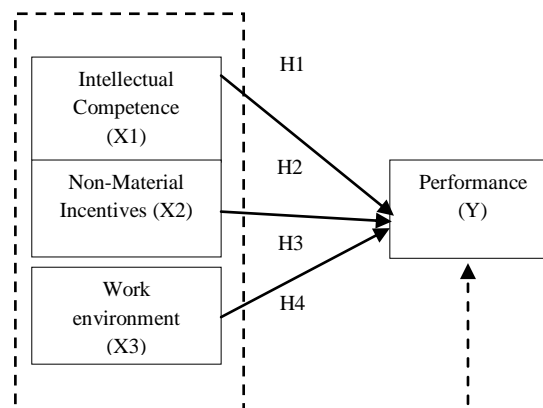
Kasmir, (2018: 189) According to Sutrisno (2014: 205), competence is an ability that is built on skills and knowledge supported by work attitudes and their application in performing tasks and work in the workplace in accordance with the established job criteria. Robbins (1996), as cited in Darmayanti ni putu, et al. (2014), defined Intellectual Competence as the capacity required to perform mental activities, such as numeracy abilities, verbal comprehension, perceptual quickness, inductive reasoning, deductive reasoning, spatial visualization, and memory. Incentives are an aspect of remuneration that is delivered in a non-fixed or variable manner based on employee performance, and are one of the variables in improving employee performance. Sinambela (2017: 238) Non-material incentives can be provided in a variety of ways, including: (a) awarding official titles; (b) providing remuneration; (c) providing remuneration; (d) promotion; (e) granting the right to use; (f) certain organizational attributes and facilities; and (g) offering formal or informal praise or thanks. Sinambela (2017: 239) According to Nitisemito (2015: 183), the work environment consists of everything that surrounds workers who can impact their performance of assigned duties. In producing strong employee performance, working circumstances, and the atmosphere in a job, for instance, a description of working conditions relates to "noise level" and "possible threats that may be experienced." Sinambela (2017: 40). (2017: 40). Several variables in the workplace serve as indications, including (1) color, (2) cleanliness, (3) air circulation, (4) lighting, (5) music, (6) security, and (7) noise. PT. Bunga Jaya Jati Bintang Mojokerto is one of the food-related companies, specializing in bread, where employees are required to complete bread orders within a certain amount of time. With an efficient use of time, the generated sales profit will increase. To attain this objective, competent individuals are required so that their performance can improve. To maintain an employee's performance, the organization must provide incentives other than salary, so that employees are encouraged to enhance their performance. Similar with PT. Bunga Jaya Jati Bintang, Mojokerto offers incentives to staff that do exceptionally well. Moreover, PT. Bunga Jaya Jati Bintang Mojokerto offers its employees with the facilities they require to feel safe and comfortable in their work environment. The influence of intellectual competence, non-material incentives, and the work environment on employee performance improvement at PT. Bunga Jaya Teak Bintang Mojokerto is the topic of this study. This research proposes the formulation of the problem, namely how Intellectual Competence, Non-Material Incentives, and the Work Environment influence partially and simultaneously on the improvement of employee performance at PT. Jaya Jati Bintang Flowers, based on the background information provided.

### **Hypothesis**

Research requires making temporary assumptions about the issue to determine its direction and goal. We hypothesize:

- H1: It has been hypothesized that Intellectual Competence has a significant effect on improving employee performance.
- H2: It has been hypothesized that non-material incentives have a significant effect on increasing employee performance.
- H3: It has been hypothesized that the work environment has a significant effect on increasing employee performance.
- H4: It has been hypothesized that Intellectual Competence, Non-Material Incentives, and Work Environment simultaneously have a significant effect on improving the performance of employees.

From the description of the research hypothesis above, the following conceptual framework can be formulated:



**Figure 1. Conceptual Framework**

Source: data processed by the author, 2022

## RESEARCH METHODS

### Subject/Object, Place and Time of Research

The workers of PT. Bunga Jaya Jati Bintang Mojokerto, who work in the production division, served as the research subjects and also participated as responders in this study. Intellectual Competence, Non-Material Incentives, and Work Environment at PT. Bunga Jaya Jati Bintang Mojokerto are the three factors that will be investigated over the course of this research. These will serve as the study's primary focus. These studies were carried out at PT. Bunga Jaya Jati Bintang Mojokerto. This investigation was carried out over the course of three months.

### Population and Sample

Sugiyono (2015: 80) defines a population as an encompassing field of things or people that have particular properties and attributes as determined by researchers, which are then studied to derive conclusions about those objects or persons. Research requires distributing a questionnaire to a group in one location. This questionnaire must include indicators and factors. This research's

authors found that PT. Bunga Jaya Jati Bintang Mojokerto's manufacturing division employs 80 people. Sugiyono (2015: 81) states that the sample reflects both the amount and quality of the population. If a population is too large to investigate, the researcher will take samples. When the researcher cannot investigate the whole population, this is done. Conclusions from the sample will be applied to the population. Thus, population sampling must be representative. "Simple random sampling" means that each research unit from the population has an equal chance of being sampled. It takes basic random samples. (simple random sampling). A questionnaire will be used to gather data from an 80-person population. Slovin's formula calculates sample count:

$$n = \frac{N}{1 + Ne^2}$$

Information :

n = Sample size

N = Population size

e = The error rate in choosing a tolerable sample member (the error rate taken in this sampling is 5%) then:

$$n = \frac{80}{\{1 + (80 \times 0.05^2)\}}$$

$$n = \frac{80}{\{1 + (80 \times 0.0025)\}}$$

$$n = \frac{80}{1 + 0,2}$$

$$n = \frac{80}{1,2}$$

$$n = 66,6$$

$$n = 67$$

Based on the above calculations, the determination of the members of the research sample (n) used in this study was 67 respondents.

## RESULTS AND DISCUSSION

### Validity test

According to Ghozali (2016: 52), the purpose of a validity test is to determine whether or not a questionnaire can be considered legitimate. It is possible to determine whether or not the questions on a questionnaire are legitimate by determining whether or not those questions can disclose anything that can be quantified using the questionnaire. According to the requirements, the questionnaire is considered to be legitimate if the r count is more than the r table. Using the formula  $df = n - 2$  to get df, such as  $df = 67 - 2 = 65$ , one arrives at the value 0.240 for the r table

when doing a test with two tails. It is possible to assert that all instruments for each research variable may be considered legitimate since the results of assessing the validity of all indicators of all instrument items reveal that they are valid. This is because the correlation value is higher than the  $r$  table, which enables this statement to be made.

### Reliability Test

**Table 1. Reliability Test Results**

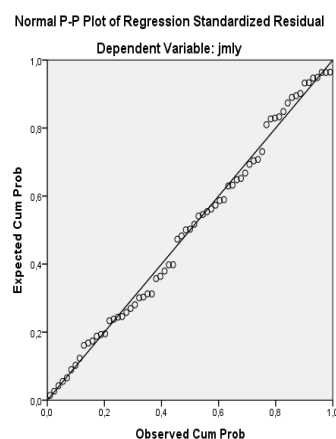
Variable	Alpha	Conclusion
Intellectual Competence	0.756	Reliable
Non-Material Incentives	0.773	Reliable
Work environment	0.797	Reliable
Performance	0.825	Reliable

Source: Data processed by SPSS'21, 2022

The chart shows that X1, Intellectual Competence, has a Cronbach alpha of 0.756.  $0.756 > 0.7$  makes the Intellectual Competence variable dependable. X2's Cronbach alpha is 0.773. Showing  $0.773 > 0.7$  makes the Non-Material Incentive variable trustworthy. Work Environment (X3) has a Cronbach alpha of 0.797.  $0.797 > 0.7$  makes the Work Environment variable dependable. Performance (Y) has a 0.825 Cronbach alpha.  $0.825 > 0.7$  to make Performance dependable.

### Classical Assumption Testing

#### Normality test



**Figure 2.** Normality test results for normal graph plots

Source: Data processed by SPSS'21, 2022

In the normal plot graph above, the data follows the diagonal line and spreads around it, making it normally distributed. The regression model is normal.

### Multicollinearity Test

**Table 2.** Multicollinearity Test Results  
Coefficients<sup>a</sup>

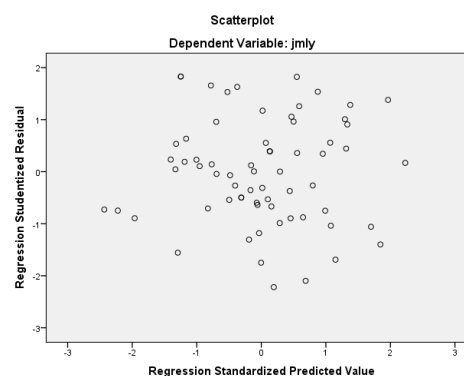
Model		Collinearity Statistics	
		tolerance	VIF
1	(Constant)		
	Intellectual Competence	0,555	1,803
	Non-Material Incentives	0,627	1,596
	Work environment	0,611	1,638

a. Dependent Variable: Employee performance

Source: Data processed by SPSS'21, 2022

Variable intellectual competence has a tolerance of 0.555 according to multicollinearity tests.  $0.555 > 0.1$  indicates no association between independent variables. Non-material incentives has 0.627 tolerance.  $0.627 > 0.1$  indicates no association between independent variables. Work environment has 0.611 tolerance.  $0.611 > 0.1$  indicates no association between independent variables.

### Heteroscedasticity Test



**Figure 3.** Heteroscedasticity Test Results

Source: Data processed by SPSS'21, 2022

The regression model is possible since there is no discernible pattern and the points scatter above and below 0 on the Y axis.

### Multiple Linear Regression Analysis

This research employed multiple linear regression analysis. To examine how Intellectual Competence (X1), non-material incentives (X2), and work environment (X3) employee performance. (Y). Equation-based multiple regression:

### Partial Hypothesis Testing (t test)

**Table 3.** Test Results t  
Coefficientsa

Model		Unstandardized Coefficients		t	Sig.
		B	std. Error		
1	(Constant)	4,550	2,586	1,759	0,083
	Intellectual Competence	0,480	0,129	3,721	0,000
	Non-Material Incentives	0,251	0,110	2,283	0,026
	Work environment	1,050	0,092	11,377	0,000

a. Dependent Variable: employee performance

Source: Data processed by SPSS'21, 2022

Based on the t test above it can be concluded that:

1. With a significance of 0.05, t count is 3.721 and t table is 1.998 for the Intellectual Competence variable, hence t count > t table (3.721 > 1.988). Thus, it can be stated that Intellectual Competence (X1) has a favorable and substantial influence on the performance of personnel in the production department of PT. Bunga Jaya Jati Bintang.
2. With a significance of 0.05, t count is 2.283 and t table is 1.998 for the Non-Material Incentives variable, hence t count > t table (2.283 > 1.988). Thus, it can be stated that Non-Material Incentives (X2) have a favorable and substantial influence on the performance of workers in the manufacturing department of PT. Bunga Jaya Jati Bintang.
3. With a significance of 0.05, t count is 11.377 and t table is 1.998 for the Work Environment variable, hence t count > t table (11.377 > 1.988). As a result, it can be determined that the Work Environment (X3) has a favorable and substantial impact on the performance of PT. Bunga Jaya Jati Bintang personnel in the production division.

Based on the SPSS output regression results above, the regression equation can be made as follows:

$$Y = 4.550 + 0.480X_1 + 0.251X_2 + 1.050X_3 + 0.05$$

From the results of the multiple linear regression equation, each independent variable can be interpreted as having an effect on employee decisions as follows:

a) Constant (a)

If intellectual capacity, non-material incentives, and work environment = 0, a = 4.550 indicates a constant price. PT. Jaya Jati Bintang producing staff perform 4,550.

b) Intellectual Competence regression coefficient

The coefficient b1 = 0.480 shows that the Intellectual Competence variable positively and significantly affects PT. Bunga Jaya Jati Bintang manufacturing workers. If the other independent variables remain constant, increasing the Intellectual Competency variable by one unit will boost PT. Jaya Jati Bintang's interest by 0.480.

c) Non-Material Incentives Regression Coefficient



The coefficient  $b_2 = 0.251$  demonstrates that PT. Bunga Jaya Jati Bintang manufacturing workers' performance is positively and significantly affected by non-material incentives. If the other independent variables remain constant, increasing the Non-Material Incentive variable by one unit will boost PT. Jaya Jati Bintang's interest by 0.251.

d) Work Environment regression coefficient

The coefficient  $b_3 = 1.050$  indicates that the Work Environment variable positively and significantly affects production staff of PT. Bunga Jaya Jati Bintang. If the other independent variables remain constant, increasing the Work Environment variable by one unit will raise PT. Jaya Jati Bintang's interest by 1.050.

### Simultaneous Hypothesis Testing (f test)

**Table 4.** Test Results f  
ANOVA<sup>a</sup>

	Model	df	F	Sig.
1	Regression	3	129,999	0,000 <sup>b</sup>
	residual	63		
	Total	66		

a. Dependent Variable: employee performance

b. Predictors: (Constant), intellectual competence, non-material incentives, and work environment

Source: Data processed by SPSS'21, 2022

According to table 4 the calculated f value is greater than the f table value ( $129.999 > 2.75$ ), indicating that Intellectual Competence, Non-Material Incentives, and Work Environment simultaneously affect production workers at PT. Bunga Jaya Jati Bintang.

### Coefficient of Determination

Ghozali (2016: 95) states that  $R^2$  measures a model's ability to explain a dependent variable's variation. If the requirement is near to one, the independent variables provide practically all the information needed to estimate dependent variable changes. The Standard Error of the Estimate (SEE) must be as low as feasible for the regression model to accurately predict the dependent variable. The following SPSS'21-generated table shows the coefficient of determination test results:

**Table 5.** Test Results for the Coefficient of Determination



Summary modelb

Model	R	R Square	Adjusted R Square	std. Error of the Estimate	Durbin-Watson
1	0,928 <sup>a</sup>	0,861	0,854	2,053	1,431

a. Predictors: (Constant), intellectual competence, non-material incentives, and work environment

b. Dependent Variable: employee performance

Source: Data processed by SPSS'21, 2022

According to the Table of Determination Coefficient Test Results, the modified R<sup>2</sup> value is 0.854, which implies the percentage is 85.4% and the remaining 14.6% is impacted by factors outside the model. The Standard Error of the Estimate (SEE) is 2.053. The lower the SEE number, the more accurate the regression model predicts the dependent variable. This regression model fits.

## DISCUSSION

### The Effect of Intellectual Competence on Performance

According to the results, the Intellectual Competence variable had a t count of 4.827 and a t table of 1.998 with a significance level of 0.05. This means that t count was more than t table ( $4.827 > 1.988$ ). So, it's safe to say that intellectual competence has a big and positive effect on how well PT. Bunga Jaya Jati Bintang's manufacturing department staff do their jobs. (X1). This shows that a worker's performance at PT. Bunga Jaya Jati Bintang will increase if they enhance their intelligence. Irma Mulyasari did research in 2018 that backs up these results. The study was called "The Influence of Emotional Intelligence and Competence on Employee Performance in Family Planning and Women's Empowerment Agency Instructors (BKBPP) Garut Regency." Based on the results of his study, he came to the conclusion that emotional intelligence has a big and positive effect on how well employees do their jobs. This means that the Family Planning and Women's Empowerment Agency (BKBPP) of Garut Regency does better the greater the emotional intelligence. Competency also has a big and positive effect on how well an individual does their job. This means that the Family Planning and Women's Empowerment Agency (BKBPP) extension workers would do a better job in Garut Regency if they were more skilled.

### Effect of Non-Material Incentives on Performance

According to the results, the variable of Non-Material Incentives had a t count of 2.283 and a t table of 1.998 with a significance level of 0.05. This indicates that the t count was superior to the t table ( $2.283 > 1.988$ ), since the significance level was lower for the table. Therefore, it is plausible to assert that the staff of PT. Bunga Jaya Jati Bintang in the manufacturing department demonstrate above-average performance in response to non-material incentives (X2). As a result, increasing the importance of non-material incentives will also result in increased employee performance. According to the findings of a research that was conducted by Natasari and Armanu (2011) and titled "The Influence of Providing Material and Non-Material Incentives on Employee

Performance Through Job Satisfaction at PG Kebun Agung Malang," non-material incentives have a significant effect on the level of job satisfaction that an employee experiences. The outcomes of the research indicate that providing workers with incentives that are not monetary in nature has a significant impact on the degree to which they like their professions. The quality of the non-material incentives that are provided has a negative correlation with employee performance as well as employee satisfaction.

### **The Effect of the Work Environment on Performance**

According to the results, the variable titled "Work Environment" had a t count of 11.377 and a t table of 1.998 with a significance level of 0.05. This indicates that the t count was higher than the t table ( $11.377 > 1.988$ ), since the significance level was set at 0.05. Because of this, we can draw the conclusion that the performance of the employees working in the production department at PT. Bunga Jaya Jati Bintang is considerably and favorably influenced by the Work Environment (X3). These results are in line with the findings that were published in "The Influence of the Occupational Safety Health Program (K3) and Conditions of the Physical Work Environment on Employee Performance at PT. Happy Jaya Prosperous," which was written by Sudarijati and Muhamad Andri Yani. (2019). The subjects of this research are the workers of PT Happy Jaya Sejahtera who are in charge of creating various types of equipment. Muhamad Andri Yani (2019) reached the conclusion that the occupational health and safety program as well as the physical work environment have a positive and considerable influence on employee performance at PT. Happy Jaya Prosperous based on the findings of simultaneous testing (Test F).

### **The influence of Intellectual Competence, Non-Material Incentives, and the Work Environment simultaneously influence the increase in employee performance at PT. Bunga Jaya Jati Mojokerto.**

As a result of the fact that the calculated f value is higher than the f table value ( $129.999 > 2.75$ ), it is possible to draw the conclusion that the variables of Intellectual Competence, Non-Material Incentives, and Work Environment all have a simultaneous effect on the performance of workers in the production section at PT. Bunga Jaya Jati Bintang. These findings are based on the findings of a f test, which can be found above. This conclusion is consistent with the findings of research that was carried out by Sudarijati and Muhamad Andri Yani (2019) in a study that was named "The Influence of the Occupational Safety Health Program (K3) and Physical Work Environment Conditions on Employee Performance at PT. Happy Jaya Prosperous." The individuals who are in charge of the machine manufacturing division at PT Happy Jaya Sejahtera are the subject of this study. These personnel are part of the production division at the company. According to the findings of Muhamad Andri Yani (2019), the occupational health safety program that has been implemented at PT. Happy Jaya Sejahtera is excellent, the state of the physical work

environment at PT. Happy Jaya Sejahtera is good, and the performance of the workers at PT. Happy Jaya Sejahtera is already good. And according to the findings of the concurrent testing (Test F), the occupational health and safety program as well as the physical work environment circumstances have a favorable and substantial influence on the performance of workers at PT Happy Jaya Prosperous. The findings of this study provide credence to the findings of a study that was carried out by Febrianto et al. (2016) and titled "The Influence of Incentives, Communication, and Work Environment on Job Satisfaction and Their Implications for Work Productivity at CV. Semarang Work Ambassador." The researchers came to the conclusion that job happiness may be significantly impacted by a combination of factors, including communication, work environment, and changeable incentives.

## CONCLUSION

This research, The Effect of Intellectual Competence, Non-Material Incentives, and the Work Environment on PT. Bunga Jaya Jati Bintang Mojokerto Employee Performance, found: PT. Bunga Jaya Jati Mojokerto employees perform better with intellectual competence. Non-Material Incentives improve employee performance at PT. Bunga Jaya Jati Mojokerto with a t count of 4.827 and a t table of 1.998 with a significance of 0.05. PT. Bunga Jaya Jati Mojokerto's work environment improves employee performance by 2.283 t count > 1.998 t table with a significance of 0.05. PT. Bunga Jaya Jati Mojokerto's employees' performance is improved by Intellectual Competence, Non-Material Incentives, and Work Environment simultaneously. The f test demonstrates that the computed f value exceeds the f table value ( $129.999 > 2.75$ ).

## REFERENCES

- Aditya Febrianto, A Maria Magdalena Minarsih, M Mukeri Warso, (2016). The Influence of Incentives, Communication and Work Environment on Job Satisfaction and Their Implications for Work Productivity at CV. Duta Karya Semarang, Pandanaran University Semarang, Journal Of Management, Volume 2 No.2, March
- Cashmere. (2018). Human resource management. Depok. Rajawali press.
- Dian Natasari, Armanu, (2012). The Effect of Providing Material and Non-Material Incentives on Employee Performance Through Job Satisfaction at PG Kebon Agung Malang, Brawijaya University Malang, Journal of Management Applications Vol. 10 No. March 1st
- Ghozali, I. (2016). Aplikasi Analisis Multivariate dengan Program IBM SPSS 23 (Edisi 8). Badan Penerbit Universitas Diponegoro.
- Irma Mulyasari, (2018). The Influence of Emotional Intelligence and Competence on Employee Performance, Galuh Ciamis University, Journal of management Review Volume 2 Number 2 Page (190-197), May
- Kasmir. (2018). Analisis Laporan Keuangan (Edisi 7). PT. Rajagrafindo Persada.
- Ni Putu Darmayanti, I Wayan Bagia, I Wayan Suwendra, (2014), The Influence of Intellectual Competence and Achievement Motivation on Employee Performance at Regional Drinking

- Water Companies (PDAM) in Gianyar Regency, Ganesha University of Education, e-Journal of Bisma Ganesha University of Education Department of Management Volume 2
- Nitisemito. (2015). *Personnel Management (Human Resource Management)*. Jakarta. Indonesian Ghalia.
- Robbins, S. P. (1996). *Organizational Behavior* (8th ed.). Prentice-Hall.
- Sinambela, Ijan Poltak. (2017). *Human resource management*. Jakarta. Literary earth.
- Sudarijati, Muhamad Andri Yani, (2019). The Influence of the Occupational Health Safety Program (K3) and the Conditions of the Physical Work Environment on Employee Performance at PT. Happy Jaya Sejahtera, Djuanda Bogor University, journal Visionida, Volume 5 Number 1, June
- Sugiyono. (2015). *Metode Penelitian Kuantitatif, Kualitatif, dan R&D* (Edisi 22). Alfabeta.
- Sutrisno, Ed. (2014). *Human resource management*. Jakarta. Kencana Prenada media group.