

## Performance of Plant Seed Supervisors at BPSB Central Java

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### **ABSTRACT**

*This research aims to determine the influence simultaneously (simultaneously) and partially of the variables of competence, independence, motivation, and use of information technology on the performance of plant seed supervisors at BPSB Central Java. This research method uses a quantitative research design. The population of all plant seed supervisors working at BPSB Central Java is 83 employees. The sampling technique used in this research was a census technique with a sample size of 83 employees. Data collection using questionnaires. The data analysis techniques used for statistical analysis are multiple linear regression test, F test, t test, and coefficient of determination. The research results show that competence, independence, motivation, and the use of information technology partially and significantly influence the performance of plant seed supervisors at BPSB Central Java. Suggestions from this research, BPSB Central Java continues to improve competence, independence, motivation and use of existing information technology, so that the performance of plant seed supervisors will increase and be better than before.*

**Keywords:** *Performance of Plant Seed Supervisors, Competence, Independence, Motivation, Use of Information Technology*

### **ABSTRAK**

Penelitian ini bertujuan untuk mengetahui pengaruh secara simultan (bersamaan) maupun secara parsial variabel kompetensi, independensi, motivasi, dan penggunaan teknologi informasi terhadap kinerja pengawas benih tanaman di BPSB Jawa Tengah. Metode penelitian ini menggunakan desain penelitian kuantitatif. Populasi dalam semua pengawas benih tanaman yang bekerja di BPSB Jawa Tengah yang berjumlah 83 pegawai. Teknik sampling yang digunakan dalam penelitian ini adalah teknik sensus dengan jumlah sampel 83 pegawai. Pengumpulan data dengan menggunakan kuesioner. Teknik analisis data yang digunakan analisis statistik yaitu uji regresi linear berganda, uji F, uji t, dan koefisien determinasi. Hasil penelitian menunjukkan bahwa kompetensi, independensi, motivasi, dan penggunaan teknologi informasi secara parsial dan signifikan berpengaruh terhadap kinerja pengawas benih tanaman di BPSB Jawa Tengah. Saran dari penelitian ini, BPSB Jawa Tengah terus meningkatkan kompetensi, independensi, motivasi, dan penggunaan teknologi informasi yang ada, sehingga akan membuat kinerja pengawas benih tanaman semakin meningkat dan menjadi lebih baik dari sebelumnya.

**Kata kunci:** Kinerja Pengawas Benih Tanaman, Kompetensi, Independensi, Motivasi, Penggunaan Teknologi Informasi

## INTRODUCTION

The Covid-19 pandemic has had a tremendous impact on human life, not only in Indonesia but in almost all countries in the world. All aspects of life are affected, especially the aspect of human resources. Human resources are the main factor that determines the sustainability of an organization, be it a business organization or company, government organization, and others. A good organization is an organization that is able to create good performance, and to achieve this it requires employees who have good performance and are able to anticipate organizational opportunities and challenges in an era of increasingly competitive competition.

Employee performance is influenced by several factors, including competence, independence, motivation, and use of information technology. This is supported by research by Syahputra and Tanjung (2020) and Nurjaya et al. (2021) stated that competence has a significant influence on employee performance. Other important factors such as independence show that independence has a positive (Wahyudi and Aryati, 2022) and significant (Puspitosarie et al., 2022) effect on performance. Research by Purnaswati and Rosita (2020) and Alhusaini et al., (2020) shows that work motivation has a significant influence on employee performance. Another factor that influences employee performance is the use of information technology. This is in line with research by Wulandari & Prasetya (2020) and (Suryani et al., 2021) which states that the use of information technology has a positive and significant effect on employee performance.

The Central Java Seed Supervision and Certification Center (BPSB), which was formed based on Central Java Governor Regulation Number 26 of 2018 concerning the Organization and Work Procedures of the Technical Implementation Unit at the Central Java Province Agriculture and Plantation Service, is the UPT at the Central Java Province Agriculture and Plantation Service as the implementer. operational tasks and/or certain supporting technical activities in the field of supervision and certification of food crop seeds, horticulture and plantations. In carrying out the duties and functions of seed supervision and certification, BPSB Central Java is supported by employees who have competence in the field of seed supervision and certification, namely Plant Seed Supervisors (PBT). The performance of these plant seed supervisors greatly determines the success of implementing the duties and role of the Central Java BPSB in maintaining and monitoring the quality of food, horticultural and plantation plant seeds in Central Java Province.

## RESEARCH METHODS

This research is quantitative descriptive research, namely descriptive research aimed at providing an explanation or description with several indicators regarding a social problem that is the object of research.

The variables used are competence, independence, motivation, and use of information technology as independent variables, as well as the performance variable of plant seed supervisors as the dependent variable.

This research was conducted within the Central Java Seed Supervision and Certification Center (BPSB) located at Jalan Solo – Yogyakarta Km. 15, Sratten Village, Gatak District, Sukoharjo Regency, Central Java Province 57557.

The population in this study was 83 plant seed supervisors at BPSB Central Java. The samples taken in this research were the entire population because there were less than 100 subjects, namely 83 samples. The data analysis techniques used for statistical analysis are multiple linear regression test, F test, t test, and coefficient of determination.

## RESULTS AND DISCUSSION

### 1. Multiple Linear Regression Test

**Table 1. Multiple Linear Regression Results**

No	Variable	Unstandardized B	Information
1	(Constant)	3,345	Positive
2	Competence	0.717	Positive
3	Independence	0.275	Positive
4	Motivation	0.208	Positive
5	Use of Information Technology	0.216	Positive

Source: Primary data processed in 2024

Based on the table above, it can be seen that the regression equation formed is:

$$Y = 3.345 + 0.717 X1 + 0.275 X2 + 0.208 X3 + 0.216$$

From this equation it can be explained that:

a. Constant (a)=3,345

This means that if the constant value (a) =3,345 while variables competence, independence, motivation, and use of information technology is considered constant or equal to zero, then it is variable performance of plant seed supervisors as big as 3,345 and shows positive results.

b. Coefficient Competence(b1) =0.717

This means that if the coefficient value of the variable competence increased, while variable independence, motivation, and use of information technology assumed the value of the regression model is fixed, then the value performance of plant seed supervisors will increase by 0.717 and showed positive results.

c. Coefficient Independence(b2) =0.275

This means that if the coefficient value of the variable independence increased, while variable competence, motivation, and use of information technology assumed the value of the regression model is fixed, then the value performance of plant seed supervisors will increase by 0.275.

d. M coefficient motivation(b3) =0.208

This means that if the coefficient value of the variable motivation experienced an increase, while variable competence, independence, and use of information technology assumed the value of the regression model is fixed, then the value performance of plant seed supervisors will increase 0.208 and showed positive results

e. Coefficient Use of Information Technology(b4) =0.216

This means that if the coefficient value of the variable use of information technology experienced an increase, while variable competence, independence and motivation assumed the value of the regression model is fixed, then the value performance of plant seed supervisors will increase by 0.216 and showed positive results.

2. Feasibility test (F test)

**Table 2. F Test Results**

Model	Fcount	Ftable	Sig.	Standard	Information
Regression	52,823	2.49	0,000	0.05	Decent Model

Source: Primary data processed in 2024

From the analysis of the data that has been obtained, it can be seen that the value of  $F_{count}$  is as big as 52,823, because  $F_{count} > F_{table}$   $52,823 > 2.49$  and significance  $0.000 < 0.05$  then  $H_0$  is rejected. It can be concluded that  $H_a$  accepted, meaning there is an influence between competence, independence, motivation, and use of information technology simultaneously and significantly towards performance of plant seed supervisors at BPSB Central Java.

3. t test

**Table 3. t Test Results**

Hypothesis	tcount	ttable	Sig.	Standard	Information
H1	6,570	1,990	0,000	0.05	Accepted
H2	2,580	1,990	0.012	0.05	Accepted
H3	2,710	1,990	0.008	0.05	Accepted
H4	2,275	1,990	0.026	0.05	Accepted

Source: Primary data processed in 2024

Based on the results of the t test in the table above, it can be explained in a hypothesis which is in the following form:

1) Influence Competence to Performance of Plant Seed Supervisors

Variable competence has value  $t_{count} > t_{table}$  ( $6.570 > 1.990$ ) and significance  $0.000 < 0.05$  then  $H_0$  is rejected and  $H_a$  accepted. It can be concluded that there is a positive and significant influence competence to performance of plant seed supervisors at BPSB Central Java.

2) Influence Independence to Performance of Plant Seed Supervisors

Variable independence has value  $t_{count} > t_{table}$  ( $2.580 > 1.990$ ) and significance  $0.012 < 0.05$  then  $H_0$  is rejected and  $H_a$  accepted. It can be concluded that there is a positive and significant influence independence to performance of plant seed supervisors at BPSB Central Java.

3) Influence Motivation to Performance of Plant Seed Supervisors

Variable motivation has value  $t_{count} > t_{table}$  ( $2.710 > 1.990$ ) and significance  $0.008 < 0.05$  then  $H_0$  is rejected and  $H_a$  accepted. It can be concluded that there is a positive and significant influence motivation to performance of plant seed supervisors at BPSB Central Java.

4) Influence Use of Information Technology to Performance of Plant Seed Supervisors

Variable use of information technology has value  $t_{count} > t_{table}$  ( $2.275 > 1.990$ ) and significance  $0.026 < 0.05$  then  $H_0$  is rejected and  $H_a$  accepted. It can be concluded that there is a positive and significant influence use of information technology to performance of plant seed supervisors at BPSB Central Java.

## 4. Coefficient of Determination Test (R2)

### Coefficient of Determination Results

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.855	0.730	0.717	1.11774

Source: Primary data processed in 2024

Based on the calculation results, the adjusted R square value is 0.717. Mean variable competence, independence, motivation, and use of information technology make a contribution to performance of plant seed supervisors amounting to 71.7% while the remaining 28.3% is explained by other variables not proposed in this research such as: work ethic, work discipline, education and others.

## Discussion

**1. Influence competence partially towards performance of plant seed supervisors at BPSB Central Java.**

Based on the SPSS calculation results,  $t_{count} > t_{table}$  ( $6,570 > 1,990$ ) and significance  $0.000 < 0.05$ . It means competence positive and significant effect on performance of seed supervisors.

This research is in line with previous research conducted by (Syahputra & Tanjung, 2020) and (Nurjaya et al., 2021) competence has a positive and significant effect on performance of seed supervisors.

In this research, competency can influence performance plant seed supervisions Central Java. Work competency is defined as the knowledge and

skills/abilities possessed by employees/apparatus that are relevant to the job, whatever task they are in, whatever their position. Competency factors can influence performance because with high ability, employee performance will be achieved. The more competent the employees they have, the more the performance and productivity of an organization will increase.

## 2. Influence independence partially towards performance of plant seed supervisors at BPSB Central Java.

Based on the SPSS calculation results,  $t_{count} > t_{table}$  ( $2,580 > 1,990$ ) and significance  $0.012 < 0.05$ . It means independence positive and significant effect on performance of seed supervisors.

This research is in line with previous research conducted by (Wahyudi & Aryati, 2022) and (Puspitosarie et al., 2022) independence has a positive and significant effect on performance of seed supervisors.

The independence of a supervisor is very essential because it is the only reason why various user parties want to place their trust in the supervisor. Independence is a very important requirement for the supervisory profession to establish the fairness of information presented by management to information users. Independence is needed by supervisors to gain the trust of clients and the community. Independence is obtained in order to increase the credibility of the financial reports presented by management. If the supervisor is not independent then the opinion he gives has no meaning or no value. Independence is an important dignity of supervisors that needs to be maintained continuously. Independence certainly has a big influence on supervisory performance.

## 3. Influence motivation partially towards performance of plant seed supervisors at BPSB Central Java.

Based on the SPSS calculation results,  $t_{count} > t_{table}$  ( $2,710 > 1,990$ ) and significance  $0.008 < 0.05$ . It means motivation positive and significant effect on performance of seed supervisors.

This research is in line with previous research conducted by (Purnaswati & Rosita, 2020) and (Alhusaini et al., 2020) motivation has a positive and significant effect on performance of seed supervisors.

In this research, motivation can influence performance plant seed supervisor in BPSB Central Java. Motivation provides driving force within a person. This power creates enthusiasm for work so that employees are willing to put in all their efforts to achieve the intended target. Having motivation will encourage employees to actively complete various tasks according to their responsibilities. A motivated employee will have high job satisfaction and performance, and have a strong desire to succeed. The presence of motivation will stimulate employees to mobilize their abilities so that they are able to show maximum performance. Thus motivation can influence performance.

## 4. Influence use of information technology partially towards performance of plant seed supervisors at BPSB Central Java.

Based on the SPPS calculation results,  $t_{\text{count}} > t_{\text{table}}$  ( $2.275 > 1.990$ ) and significance  $0.026 < 0.05$ . It means use of information technology positive and significant effect on performance of seed supervisors.

This research is in line with previous research conducted by (Wulandari & Prasetya, 2020) and (Suryani et al., 2021) use of information technology has a positive and significant effect on performance of seed supervisors.

Information technology is important in our lives because helps deal with everyday dynamic things. Technology offers a variety of tools to encourage the development and exchange of information. Both of these are IT's goals to make work easier and solve many problems. Information technology really helps employees in completing their work. Considering the very rapid development of the times, employees are required to be able to maximize existing technology. With information technology, it is hoped that the employee performance created will also be maximized.

## CONCLUSIONS AND RECOMMENDATIONS

### Conclusion

Based on the results of hypothesis testing and discussions that have been carried out, it can be concluded:

1. Competence positive and significant effect on the performance of plant seed supervisors at BPSB Central Java.
2. Independence positive and significant effect on the performance of plant seed supervisors at BPSB Central Java.
3. Motivation positive and significant effect on the performance of plant seed supervisors at BPSB Central Java.
4. Use of Information Technology positive and significant effect on the performance of plant seed supervisors at BPSB Central Java.

### Suggestion

Based on the conclusions above, in this research the author provides useful suggestions, including:

1. Theoretically  
It is hoped that further research will develop this research by using other independent variables besides competence, independence, motivation, and use of information technology which can influence performance of plant seed supervisors, considering that there is still an influence of 28.3% outside the variables of this research such as work ethic, work discipline, education and others.
2. Practically speaking
  - a. Expected BPSB Central Java In the future, we will continue to maintain and improve quality competence, independence, motivation, and use of

information technology which exists. High quality competence, independence, motivation, and use of information technology in BPSB Central Java make performance of plant seed supervisors will also continue to improve and become better than before.

- b. For other researchers, performance variables can also be used for research outside organizations or government agencies because they can be used to progress a specific object. Can also be used in companies, banks, factories and others.

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