

Analysis of Factors Affecting Work Productivity Within The Public Works and Public Housing (PUPR) Agency of Pakpak Bharat Regency

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Abstract.

This study aims to determine and analyze the effects of work motivation, work discipline, competence, and the work environment on employee work productivity at the Public Works and Spatial Planning Office (PUPR) of Pakpak Bharat Regency. This study employed a quantitative research method with an associative approach. The sample consisted of 62 employees. The results of the study indicate that work motivation has a significant effect on employee work productivity, with a calculated t-value of 4.120 > t-table of 2.002 and a significant value of 0.000 < 0.05, contributing relatively 11.50%. Work discipline also has a significant effect on employee work productivity, with a calculated t-value of 6.675 > t-table of 2.002 and a significant value of 0.000 < 0.05, contributing 18.63%. Competence has a significant effect on employee work productivity, with a calculated t-value of 6.664 > t-table of 2.002 and a significant value of 0.000 < 0.05, contributing 18.59%. The work environment has a significant effect on employee work productivity, with a calculated t-value of 10.920 > t-table of 2.002 and a significant value of 0.000 < 0.05, making the largest relative contribution of 30.48%. Furthermore, the results show that work motivation, work discipline, competence, and the work environment simultaneously have a significant effect on employee work productivity, as indicated by an F-value of 58.929 > F-table of 2.53 and an F significance value lower than the predetermined significance level (0.000 < 0.05). The findings also reveal an Adjusted R Square value of 0.792, indicating that work motivation, work discipline, competence, and the work environment collectively explain 79.2% of the variation in employee work productivity, while the remaining 20.8% is explained by other variables not examined in this study.

Keywords: Work Motivation, Work Discipline, Competence, Work Environment and Work Productivity.

I. INTRODUCTION

Background of the problem

Human resources are a crucial asset in any organization, whether private or governmental. An organization's success in achieving its goals is largely determined by the quality and productivity of its human resources. In government organizations, qualified human resources will be able to carry out their duties and responsibilities effectively and efficiently, thereby improving the quality of public services. Therefore, improving employee productivity is a crucial priority for every government agency.

Work productivity is one indicator used to assess an organization's success in optimally utilizing its resources. Work productivity demonstrates an employee's ability to produce maximum output or results using available resources. Employees with high levels of work productivity are able to complete work effectively, on time, and in accordance with established organizational standards.

Work productivity is a measure of the effectiveness and efficiency of the workforce in producing output based on the resources used. Recent research in Human Resource Management shows that high work productivity reflects employees' ability to work efficiently and make optimal contributions to achieving organizational goals. (R. Sari & Putra, 2022) Other studies have also found that work productivity is influenced by various factors, such as work motivation, work discipline, competence, and a conducive work environment, which play a significant role in improving employee performance. (Hidayat & Lestari, 2021). In addition, recent empirical studies state that work productivity is a measure of efficiency that compares the output produced with the input used in the work process, whether in the form of time, energy, or other resources. (D. Wulandari & Nugroho, 2022).

In public sector organizations, employee productivity plays a crucial role because it directly

impacts the successful implementation of development programs and the quality of public services. Government agencies are required to provide prompt, accurate, and high-quality services to the public. This can only be achieved if the employees within those agencies have a high level of productivity. Therefore, organizations need to consider various factors that can influence employee productivity to optimally achieve organizational goals.

Work motivation is a crucial factor influencing employee productivity. Work motivation can be defined as the internal and external forces that drive individuals to perform optimally to achieve organizational goals. Research in Human Resource Management shows that employees with high levels of work motivation tend to have greater work ethic, significantly improving performance and productivity.(R. Sari & Putra, 2022);(Wibowo & Sutanto, 2021)Other studies have also found that work motivation plays a role in directing behavior, increasing the intensity of effort, and maintaining employee consistency in completing organizational tasks.(Herlina & Yusuf, 2021). In addition, recent empirical studies show that work motivation not only influences individual work outcomes, but also contributes to increasing the overall effectiveness of the organization by improving the quality and quantity of output produced.(A. Prasetyo & Lestari, 2024).

Work discipline is a crucial factor influencing employee productivity. It reflects the level of employee compliance with the rules, procedures, and regulations applicable within the organization. Research in Human Resource Management shows that high levels of work discipline significantly increase productivity, as disciplined employees tend to work more regularly, on time, and in accordance with established operational standards.(Saputra & Handayani, 2022)(Nugroho et al., 2023)Other studies have also found that work discipline plays a role in increasing work effectiveness and helping organizations achieve their goals optimally through compliance with work rules and responsibilities.(Rahma & Siregar, 2021). In addition, recent empirical studies show that good work discipline can create an orderly and conducive work environment, thus having a direct impact on improving the quality and quantity of employee work results.(Prabowo & Lestari, 2024).

Employee competence is a crucial factor influencing work productivity. Competence encompasses individual abilities, including knowledge, skills, and work attitudes that align with job demands. Research in Human Resource Management shows that competence has a positive and significant impact on work productivity, as highly competent employees tend to complete their work effectively and efficiently.(Utami & Pratama, 2022);(Kurniawan et al., 2023)Other research also reveals that competence is not only related to technical abilities, but also includes behavioral aspects, such as communication skills, teamwork, and leadership, which contribute to improving employee performance.(M. Sari & Nugraha, 2021). In addition, recent empirical studies show that good competencies enable employees to adapt to changes in the work environment and improve the quality and quantity of output produced.(Firmansyah & Lestari, 2024).

In an organizational context, high employee competency significantly contributes to increased work productivity. Competent employees are not only able to complete tasks effectively, but also minimize errors, increase time efficiency, and produce high-quality output. Conversely, low competency can hinder work completion, reduce the quality of work results, and impact productivity. Therefore, competency is a crucial factor in supporting increased employee productivity.

The work environment is one of the factors that has a significant influence on employee productivity. The work environment encompasses both the physical and non-physical conditions experienced by employees while carrying out their duties, such as comfort, safety, work relationships, and available facilities. Research in the field of Human Resource Management shows that a conducive work environment has a positive and significant impact on increasing work productivity, as it can increase employee enthusiasm, comfort, and focus at work.(Putri & Kurniawan, 2022);(Hidayati et al., 2023)Other studies have also found that a good work environment, both in terms of physical aspects such as lighting, temperature, and cleanliness, as well as non-physical aspects such as relationships between coworkers and support from superiors, can increase work effectiveness and the quality of employee performance.(Rahma & Siregar, 2021).

In addition to competency, the work environment also has a significant influence on employee productivity. The work environment encompasses everything surrounding employees while they perform their work, both physical and non-physical, which can directly or indirectly affect their performance and comfort at work. A positive work environment creates a supportive atmosphere, enabling employees to work with greater focus, comfort, and optimal performance.

Formulation of the problem

Based on the explanation of the problem limitations that have been outlined, the researcher formulates the problem as follows:

1. Does work motivation influence the work productivity of employees in the Public Works and Public Housing (PUPR) Department of Pakpak Bharat Regency?
2. Does work discipline affect the work productivity of employees in the Public Works and Public Housing (PUPR) Department of Pakpak Bharat Regency?
3. Does competence influence the work productivity of employees in the Public Works and Public Housing (PUPR) Department of Pakpak Bharat Regency?
4. Does the work environment affect the work productivity of employees in the Public Works and Public Housing (PUPR) Department of Pakpak Bharat Regency?
5. Do work motivation, work discipline, competence, and work environment simultaneously influence the work productivity of employees in the Public Works and Public Housing (PUPR) Department of Pakpak Bharat Regency?

Research purposes

The objectives to be achieved from this research are:

1. To determine and analyze the influence of work motivation on employee work productivity in the Public Works and Public Housing (PUPR) Department of Pakpak Bharat Regency.
2. To determine and analyze the influence of work discipline on employee work productivity in the Public Works and Public Housing (PUPR) Department of Pakpak Bharat Regency.
3. To determine and analyze the influence of competence on employee work productivity in the Public Works and Public Housing (PUPR) Department of Pakpak Bharat Regency.
4. To determine and analyze the influence of the work environment on employee work productivity in the Public Works and Public Housing (PUPR) Department of Pakpak Bharat Regency.
5. To determine and analyze the influence of work motivation, work discipline, competence, and work environment simultaneously on employee work productivity in the Public Works and Public Housing (PUPR) Department of Pakpak Bharat Regency.

Benefits of research

1. Theoretical Benefits

This research is expected to contribute to the development of science, especially in the field of human resource management, especially regarding factors that influence employee work productivity in government organizations.

2. Practical Benefits

- a. For the Agency (Public Works and Public Housing Agency (PUPR) of Pakpak Bharat Regency)
The results of this study are expected to be used as consideration and input for the agency in increasing employee work productivity.
- b. For Researchers This research can increase researchers' insight and knowledge regarding the factors that influence employee work productivity in government organizations.
- c. For Further Researchers This research is expected to be a reference or reference material for further researchers who wish to conduct research on the same topic or one related to employee work productivity.

Theoretical review

Work Productivity

Understanding Work Productivity

Busro, (2021:340), states that productivity is the comparison between output and input. Thus,

productivity is defined as how efficient the concrete results or products produced (output) are compared to the power deployed (input).

Rohim & Irayanti, (2022) states that productivity is a measure of productive efficiency, a comparison between output and input.

Work Productivity Indicators

Rohim & Irayanti, (2022) states that the indicators that can measure work productivity are:

1. Competence, namely having the ability to carry out tasks. An employee's competence depends heavily on their skills and professionalism in their work.
2. Improving the results achieved, namely trying to improve the results achieved.
3. Work spirit, namely this is an effort to be better than yesterday.
4. Self-development, namely continuously developing oneself to improve work skills.
5. Quality, which means always striving to improve quality beyond the past. Quality is the result of work that can demonstrate the quality of an employee's work.
6. Efficiency, namely the comparison between the results achieved and the total resources used.

Work motivation

Understanding Work Motivation

According to Hartatik, (2021:160) Work motivation is something that causes, channels and supports human behavior so that people want to work hard and enthusiastically to achieve optimal results.

According to Sumardjo & Priansa, (2021:202) work motivation is the behavior and factors that influence employees to show individual intensity, direction, and persistence in an effort to achieve organizational goals.

Work Motivation Indicators

Afandi, (2022:29) divides the indicators into their respective measurement dimensions, which are described as follows.

1. remuneration
2. Working conditions
3. Work facilities
4. Work performance
5. Recognition from superiors

Work Discipline

Understanding Work Discipline

According to Sutrisno, (2022:87), discipline is a tool to motivate employees. For every job to run smoothly, efforts must be made to ensure good discipline.

According to Sinambela, (2021:122) Work discipline is the conscious and regular behavior of employees to be willing to obey all organizational rules and established social norms.

Indicator Work Discipline

Work discipline indicators are parameters used to measure the level of employee discipline in carrying out their duties and responsibilities in the workplace. According to Sinambela, (2021:337) there are several indicators of work discipline, namely:

1. Presence at work
2. Compliance with work regulations
3. Adherence to work standards
4. High level of alertness
5. Work ethically

Competence

Understanding Competence

Competence according to Dessler, (2020:408) Competence is a personal characteristic that can be demonstrated such as knowledge, skills and personal behavior such as leadership.

According to Wibowo, (2022: 272) states that competence is the basic foundation of a person's characteristics and indicates how to behave or think, adapt to situations, and support for a long period of time.

Competency Indicators

According to Aisha, (2021:78) Work competency indicators, namely:

1. Knowledge is information related to understanding and potential embedded in the brain.
2. Understanding is mastering something by using the mind.
3. Skills are abilities that every employee must have to be able to optimally carry out the tasks and responsibilities given by the company.
4. Attitude is a person's mental readiness to respond to objects or situations that influence and determine his actions.
5. Interest is a person's feeling of attraction to something or an activity.

Work environment

Understanding the Work Environment

According to Budiasa, (2021:39), the work environment is everything that is around employees when they are working, whether physical or non-physical, direct or indirect, which can influence the employee and their work when they are working.

According to Herlinda et al., (2021:122) The work environment is everything around an employee that can influence him to carry out the tasks assigned.

Work Environment Indicators

According to Budiasa, (2021:43) work environment indicators are as follows:

1. Work atmosphere Conditions that exist around employees that create an atmosphere and influence the implementation of the work.
2. Relationships with coworkers can be characterized by harmony without putting each other down. Harmonious work relationships help employees stay with the company, which naturally impacts employee performance.
3. Availability of work facilities or equipment to improve employee performance.

II. RESEARCH METHODS

Types of research

The research method used in this study is a quantitative descriptive research method. According to Sugiyono (2021:8), quantitative data can be defined as a research method based on the philosophy of positivism, used to research a specific population or sample, data collection using research instruments, and quantitative/statistical data analysis, with the aim of testing a predetermined hypothesis.

Population and Sample

Population

According to Sugiyono (2021:80), "population is a generalization area consisting of objects or subjects that have certain qualities and characteristics determined by researchers to be studied and then conclusions drawn." The population determined in this study was all employees at the PUPR Service of Pakpak Bharat Regency, namely 62 people.

Sample

According to Sugiyono (2021:136), "A sample is a portion of the population." To determine the required sample size, the sampling technique in this study uses the Saturated Sampling Technique, where all the population in this study is used as a sample., thus the number of samples in this study was 62 respondents.

Classical Assumption Test

Normality Test

Ghozali (2021:161), "states that the normality test aims to test whether in the regression model, the confounding or residual variables have a normal distribution."

Multicollinearity Test

This test aims to examine whether a correlation is found between independent variables in the regression model. A good regression model should not have any correlation between independent variables (Ghozali, 2017).21:103).

Heteroscedasticity Test

According to Ghozali (2021:137), "The heteroscedasticity test aims to test whether in a regression model there is inequality in the variance of the residuals from one observation to another observation."

Multiple Linear Regression Analysis

Multiple linear regression analysis aims to determine the linear relationship between several independent variables which are usually called X1, X2, X3 and X4 with the dependent variable called Y.

Hypothesis Testing

Partial Hypothesis Test (t-test)

Ghozali (2021:97) states that the t-statistic test basically shows how far the influence of an explanatory (independent) variable individually is in applying the dependent version.

Simultaneous Hypothesis Test (F Test)

According to Ghozali (2021:96) the F statistical test measures goodness of fit, namely the accuracy of the sample regression function in estimating the actual value.

Analysis of the Coefficient of Determination (R^2)

According to Ghozali (2021:98), the coefficient of determination test aims to measure the extent to which the model is able to explain variations in the dependent variable.

III. RESEARCH RESULT

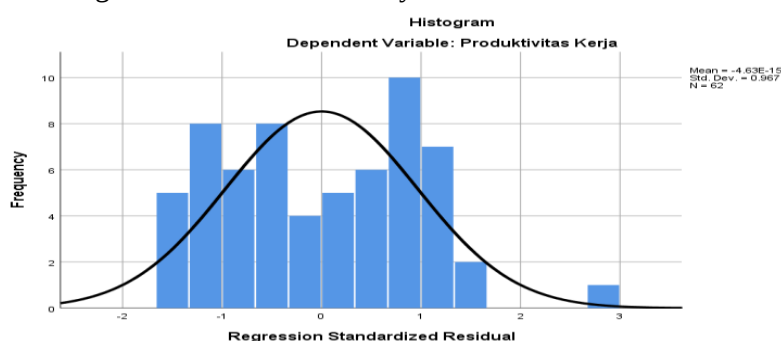
Classical Assumption Test

Table 1 Normality Test Results
One-Sample Kolmogorov-Smirnov Test

		Unstandardized Residual
N		62
Normal Parameters ^{a,b}	Mean	.0000000
	Standard Deviation	1.06032680
Most Extreme Differences	Absolute	.090
	Positive	.090
	Negative	-.088
Test Statistics		.090
Asymp. Sig. (2-tailed)		.200 ^{c,d}

Source: SPSS Output Results 25.2026

Based on Table 3.1, the value is known *Asym Sig. (2-tailed)* amounting to $0.200 > 0.05$, it can be concluded that the regression model is normally distributed.

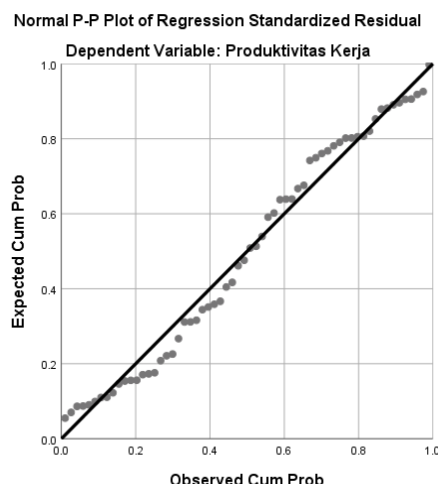


Source: SPSS Output Results 25.2026

Fig. 1 Normality Test with Histogram

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Based on the image above, the histogram curve forms a bell-shaped pattern and does not deviate to the left or right. Therefore, it can be concluded that the data is normally distributed.



Source: SPSS Output Results 25.2026

Fig. 2 Results of Normality Test with PP Plot

Based on figure 3,2 it can be seen that the data is spread around the diagonal line and follows the direction of the diagonal line or the histogram graph shows a normal distribution pattern, so the regression model meets the assumption of normality.

Multicollinearity Test

Table 2 Multicollinearity Test

		Coefficients^a		Collinearity Statistics	
Model		Unstandardized Coefficients	Std. Error	Tolerance	VIF
	B				
1	(Constant)	21,468	1,617		
	Work motivation	.066	.016	.927	1,079
	Work Discipline	.178	.027	.991	1,009
	Competence	.189	.028	.914	1,094
	Work environment	.388	.036	.988	1,012

a. Dependent Variable: Work Productivity

Source: SPSS Output Results 25.2026

Based on table 4.17, it can be seen that the VIF value of the work motivation variable is 1.079, work discipline is 1.009, competence is 1.094 and work environment is 1.012, all VIF values are <10. Thus, there is no multicollinearity.

Heteroscedasticity Test

Table 3 Heteroscedasticity Test

		Coefficients ^a				
Model		Unstandardized Coefficients	Standardized Coefficients			
		B	Std. Error	Beta	t	Sig.
1	(Constant)	1,462	.790		1,850	.069
	Work motivation	-.012	.008	-.202	-1,547	.127
	Work Discipline	-.024	.013	-.232	-1,841	.071
	Competence	.020	.014	.185	1,408	.164
	Work environment	-.001	.017	-.011	-.085	.933

a. Dependent Variable: abs_res

Source: SPSS Output Results 25.2026

The significance value of the work motivation variable is 0.127, work discipline is 0.071, competence is 0.164 and work environment is 0.933, all VIF values are <10. Thus, there is no multicollinearity.

Multiple Linear Regression Analysis

Table 4 Multiple Linear Regression Test Results

		Coefficients ^a			
		Unstandardized Coefficients		Standardized Coefficients	
Model		B	Std. Error	Beta	t
1	(Constant)	21,468	1,617		13,274
	Work motivation	.066	.016	.250	4.120
	Work Discipline	.178	.027	.392	6,675
	Competence	.189	.028	.407	6,664
	Work environment	.388	.036	.642	10,920

a. Dependent Variable: Work Productivity

Source: SPSS Output Results 25.2026

From calculations using SPSS version 25, the regression equation obtained is:

$$Y = 21.468 + 0.064X_1 + 0.178X_2 + 0.189X_3 + 0.388X_4$$

These figures can be explained as follows:

1. The constant value of 21.468 indicates that if the variables Work Motivation, Work Discipline, Competence, and Work Environment are considered to have a value of zero, then Work Productivity has a value of 21.468 units.
2. The Work Motivation Coefficient (X_1) of 0.064 indicates that if Work Motivation increases by 1 unit, assuming other variables remain constant, then Work Productivity will increase by 0.064 units.
3. The Work Discipline Coefficient (X_2) of 0.178 indicates that if Work Discipline increases by 1 unit, assuming other variables remain constant, then Work Productivity will increase by 0.178 units.
4. The Competency Coefficient (X_3) of 0.189 indicates that if Competency increases by 1 unit, assuming other variables remain constant, then Work Productivity will increase by 0.189 units.
5. The Work Environment Coefficient (X_4) of 0.388 indicates that if the Work Environment increases by 1 unit, assuming other variables remain constant, then Work Productivity will increase by 0.388 units.

Hypothesis Testing

Partial Hypothesis Test (t-Test)

Table 5 Results of the t-Hypothesis Test

		Coefficients ^a			
		Unstandardized Coefficients		Standardized Coefficients	
Model		B	Std. Error	Beta	t
1	(Constant)	21,468	1,617		13,274
	Work motivation	.066	.016	.250	4.120
	Work Discipline	.178	.027	.392	6,675
	Competence	.189	.028	.407	6,664
	Work environment	.388	.036	.642	10,920

a. Dependent Variable: Work Productivity

Source: SPSS Output Results 25.2026

The percentage is based on the calculated t value, so the formula commonly used in thesis discussions is:

$$\text{Persentase Pengaruh} = \frac{t_{hitung}}{\sum t_{hitung}} \times \text{Adjusted } R^2 \times 100\%$$

It is known:

Adjusted R Square = 79.2% (0.792)

Total t-value = 4.120 + 6.675 + 6.664 + 10.920 = 28.379

Work motivation : 4,120/28,379 = 0.1452/11.50%

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Work Discipline : $6.675/28.379 = 0.2352/18.63\%$

Competence : $6.664/28,379 = 0.2348/18.59\%$

Work environment : $10,920/28,379 = 0.3848/30.48\%$

Based on the t-test table, it can be concluded that:

1. Work Motivation (X_1) has a calculated t value of $4.120 > t$ table 2.002 and a significance value of $0.000 < 0.05$. Thus, Work Motivation has a positive and significant effect on Work Productivity. This means that the higher the employee's work motivation, the higher the work productivity will be. Work Motivation contributes an influence of 11.50% to Work Productivity.
2. Work Discipline (X_2) has a calculated t value of $6.675 > t$ table 2.002 and a significance value of $0.011 < 0.05$. Thus, Work Discipline has a positive and significant effect on Work Productivity. This means that the better the employee's work discipline, the higher the work productivity. Work Discipline contributes 18.63% to Work Productivity.
3. Competence (X_3) has a calculated t-value of $6.664 > t$ -table 2.002 and a significance value of $0.000 < 0.05$. Thus, Competence has a positive and significant effect on Work Productivity. This means that increasing employee competency will increase work productivity. Competence contributes 18.59% to Work Productivity.
4. Work Environment (X_4) has a calculated t-value of $10.920 > t$ -table 2.002 and a significance value of $0.000 < 0.05$. Thus, the Work Environment has a positive and significant effect on Work Productivity. The Work Environment contributes 30.48% to Work Productivity and is the variable with the most dominant influence. This means that an increasingly better work environment will support increased employee work productivity.

Simultaneous Hypothesis Test (F Test)

Table 6 Results of the F Hypothesis Test

ANOVA						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	283,612	4	70,903	58,929	.000b
	Residual	68,582	57	1,203		
	Total	352,194	61			

a. Dependent Variable: Work Productivity

b. Predictors: (Constant), Work Environment, Work Discipline, Work Motivation, Competence

Source: SPSS Output Results 25.2026

Based on the results of the simultaneous test (F test) in the ANOVA table, the calculated F value was $58.929 > F$ table of 2.53 and a significance value of $0.000 < 0.05$. This indicates that Work Motivation, Work Discipline, Competence, and Work Environment simultaneously (together) have a positive and significant effect on Work Productivity. Thus, the hypothesis stating that Work Motivation, Work Discipline, Competence, and Work Environment have a simultaneous effect on Work Productivity is accepted.

Coefficient of Determination (R^2)

Table 7 Results of the R^2 Determination Coefficient Test

Model Summary				
Model	R	R Square	Adjusted R Square	Standard Error of the Estimate
1	.897a	.805	.792	1,097

a. Predictors: (Constant), Work Environment, Work Discipline, Work Motivation, Competence

b. Dependent Variable: Work Productivity

Source: SPSS Output Results 25.2026

Based on the results of the determination coefficient analysis in the table above, the value obtained is *Adjusted R Square* of 0.792 indicates that the relationship between the variables of Work Motivation, Work Discipline, Competence, and Work Environment with Work Productivity is in the fairly strong category, where the four variables are able to explain the variation in Work Productivity by 79.2%, while the remaining 20.8% is influenced by other factors outside the research model.

Discussion

The Influence of Work Motivation on Work Productivity

The results of the study indicate that work motivation has a positive and significant effect on employee work productivity at the Public Works and Public Housing (PUPR) Department of Pakpak Bharat Regency. This is evidenced by the results of the partial test which shows a calculated t value of 4.120 which is greater than the t table of 2.002 with a significance value of 0.000 which is less than 0.05. These results indicate that the hypothesis is accepted. Based on the proportion of the calculated t value to the Adjusted R Square of 79.2%, Work Motivation contributes an influence of 11.50% on Work Productivity. This shows that increasing work motivation will encourage increased productivity, although its contribution is still smaller than work discipline, competence, and work environment. A positive and significant effect means that every increase in work motivation will be followed by a real increase in employee work productivity and can be proven statistically. In other words, the higher the motivation an employee has, the greater the enthusiasm, responsibility, and sincerity of the employee in completing the work so that work productivity will increase. At the Public Works and Public Housing Agency of Pakpak Bharat Regency, work motivation is a crucial factor because most jobs require precision, punctuality, and a high degree of responsibility in implementing development projects. Employees who receive recognition for their work performance, leadership support, career development opportunities, adequate work facilities, and a supportive work environment will be motivated to perform optimally.

The Influence of Work Discipline on Work Productivity

The results of the study indicate that work discipline has a positive and significant effect on employee work productivity at the Public Works and Public Housing (PUPR) Department of Pakpak Bharat Regency. This is proven based on the results of the partial test which shows a calculated t value of 6.675 greater than the t table of 2.002 with a significance value of 0.000 less than 0.05. Thus, the hypothesis stating that work discipline has an effect on employee work productivity can be accepted. Based on the proportion of the calculated t value to the Adjusted R Square of 79.2%, Work Discipline contributes an influence of 18.63% on Work Productivity. These results indicate that work discipline is an important factor in increasing employee productivity. The positive and significant effect shows that every increase in work discipline will be followed by a significant increase in employee work productivity. This means that the higher the level of employee discipline in complying with working hours, standard operating procedures, rules, and responsibilities towards work, the higher the resulting work productivity. At the Public Works and Housing Agency of Pakpak Bharat Regency, work discipline plays a crucial role, given that work activities are related to the implementation of development projects, which must be completed within time, quality, and budget targets. Highly disciplined employees are more likely to complete work on time, minimize errors, maintain quality results, and adhere to established procedures.

The Influence of Competence on Work Productivity

The results of the study indicate that competence has a positive and significant effect on employee work productivity at the Public Works and Public Housing (PUPR) Department of Pakpak Bharat Regency. This is proven based on the results of the partial test which shows a calculated t value of 6.664 greater than the t table of 2.002 with a significance value of 0.000 less than 0.05. Thus, the research hypothesis is accepted. Based on the proportion of the calculated t value to the Adjusted R Square of 79.2%, Competence contributes an influence of 18.59% on Work Productivity. The positive and significant effect shows that the higher the competence possessed by employees, the higher the resulting work productivity. The competence in question includes knowledge, skills, technical abilities, and work attitudes that support the implementation of tasks effectively and efficiently. In carrying out work at the PUPR Department of Pakpak Bharat Regency, employee competence is very necessary because each job requires technical abilities that are appropriate to the field of work, especially in planning, supervision, and implementation of development projects. Employees who have high competence will more easily understand work procedures, be able to complete work quickly, minimize errors, and produce quality work.

The Influence of the Work Environment on Work Productivity

The results of the study indicate that the work environment has a positive and significant effect on employee work productivity at the Public Works and Public Housing (PUPR) Department of Pakpak Bharat Regency. This is evidenced by the results of the partial test which shows a calculated t value of 10.920 greater than the t table of 2.002 with a significance value of 0.000 less than 0.05. Thus, the research hypothesis is accepted. Based on the proportion of the calculated t value to the Adjusted R Square of 79.2%, the Work Environment contributes an influence of 30.48% on Work Productivity and is the variable that provides the most dominant influence. The positive and significant effect shows that the better the work environment perceived by employees, the higher the work productivity produced. A comfortable, safe work environment, supported by harmonious work relationships will increase work enthusiasm, concentration, and effectiveness in completing work. At the PUPR Department of Pakpak Bharat Regency, the work environment is an important factor because work is carried out both in the office and in the field. Adequate work facilities, comfortable workspaces, harmonious working relationships, good communication, and leadership support will create a conducive work environment that enables employees to perform optimally. Conversely, an unsupportive work environment can lead to decreased concentration, increased errors, and delays in project completion.

The Influence of Work Motivation, Work Discipline, Competence, and Work Environment on Work Productivity

The results of the study indicate that work motivation, work discipline, competence, and work environment simultaneously have a positive and significant effect on employee work productivity at the Public Works and Public Housing (PUPR) Department of Pakpak Bharat Regency. This is proven by the results of the F test which shows a calculated F value of 58.929 which is greater than the F table of 2.53 with a significance value of 0.000 which is less than 0.05. In addition, the Adjusted R Square value of 0.792 indicates that the four variables are able to explain variations in employee work productivity by 79.2%, while the remaining 20.8% is influenced by other factors outside the study. These results indicate that the simultaneous hypothesis is accepted. A positive and significant simultaneous effect means that increasing work motivation, work discipline, competence, and work environment together will significantly increase employee work productivity. This shows that work productivity is not only influenced by one factor, but is the result of a combination of various aspects of human resources that support each other. Employees with high motivation, good discipline, adequate competence, and a conducive work environment will be able to work more effectively and efficiently, and achieve optimal performance. The results of this study are consistent with previous research showing that work motivation, work discipline, competence, and the work environment are the main determinants of employee productivity.

IV. CONCLUSION

Conclusion

1. Work motivation has a positive and significant effect on work productivity at the PUPR Service of Pakpak Bharat Regency, with a contribution of 11.50%.
2. Work Discipline has a positive and significant effect on Work Productivity, with a contribution of 18.63%.
3. Competence has a positive and significant effect on Work Productivity, with a contribution of 18.59%.
4. The work environment has a positive and significant effect on work productivity, with a contribution of 30.48% and is the most dominant variable.
5. Simultaneously, Work Motivation, Work Discipline, Competence, and Work Environment have a positive and significant influence on Work Productivity.
6. The R Square value of 79.2% shows that Work Productivity can be explained by these four variables, while 20.8% is explained by other factors outside the research.

Suggestion

1. The PUPR Service of Pakpak Bharat Regency needs to increase work motivation by providing appropriate awards, appreciation, and work encouragement.
2. Work discipline needs to be strengthened through the application of rules, punctuality, and consistent supervision.
3. Employee competency can be improved through training and skills development that are appropriate to job requirements.
4. The work environment needs to be maintained and improved because it is the most dominant factor in increasing work productivity.
5. Further research is recommended to add other variables that have the potential to influence work productivity.

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