# The Model of Leadership Style and Work Productivity

**Muhammad Syafri**
Sekolah Tinggi Ilmu Ekonomi Graha Kirana, email: syafri.mohd@gmail.com

Corresponding Author: syafri.mohd@gmail.com

**Abstract:** The purpose of this study was to determine (1) the effect of leadership of the Head of the West Java Provincial Education Office on the work productivity of employees of the West Java Provincial Education Office; (2) the effect of employee discipline on the work productivity of employees of the West Java Provincial Education Office; and (3) the effect of leadership and employee discipline on the work productivity of employees of the West Java Provincial Education Office. The research method used is descriptive and explanatory survey method using a sample of West Java Provincial Education Office employees as respondents, totaling 50 people. Based on the results of the study, the research results show that leadership in the West Java Provincial Education Office is generally good, but there are several things that need attention, namely the lack of smooth communication between employees and leaders, a less conducive work atmosphere, less attention to employee conditions and unclear task structures; employee discipline is considered quite good, but it is necessary to improve discipline, namely punctuality of attendance, obedience in following SOPs, and responsibility in maintaining work infrastructure; leadership affects employee work productivity, where the better leadership will result in better work productivity of employees of the West Java Provincial Education Office; discipline affects employee work productivity, so that the higher employee discipline, the higher work productivity will be; and leadership and employee discipline together affect employee work productivity, but when viewed partially it turns out that leadership is more dominant in influencing employee work productivity than employee discipline.

**Keyword:** Leadership, Discipline, Productivity

## INTRODUCTION

In striving for good governance, Indonesia can be seen as an example. A set of indicators that are crucial to be satisfied for the emergence of good governance include the minimum values such as transparency, accountability, and participation. Nevertheless, with an eye to public bureaucracy behavior during government system running, there is no end to challenges that will come up. However, the actual level of performance of the public services on integrated licensing is found to be not as high and optimal as it should be; this can be seen from the report results of a preliminary study (2021) that were previously published about thirty interviews conducted with West Java Provincial Education Office staff members. Hence, it can

be argued that the quality of services provided by employees at West Java Provincial Education Office is yet unsatisfactory. Since informants continue to express their dissatisfaction with demanding requirements in business license services, competence of personnel, time frame for service delivery, cost norms, and also responsiveness. A true leader is someone who can guide and inspire their followers through understanding and support to fulfill their aspirations and strive diligently in executing their responsibilities. In a company or organization, it will be almost impossible to reach its goals without having a leader that sets standards and determines what the institution should be like so that everybody acts in synergy. A leader must be knowledgeable and skilled in the leadership role; this forms the foundation on which to build expectations.

When it comes to effective leadership, it is also about giving impetus and control to the subordinates because an employee who possesses a perfect blend of capability, skillfulness, and an amiable personality never fails to feel motivated and charged up throughout work, ensuring that they do all they can to achieve the best possible level of productivity. Work productivity heavily depends on leadership as leaders are followed by their subordinates as examples and mentors. Good leadership, therefore, has to be led by example, setting discipline, honesty, fairness, and following words with actions. Leadership is an essential factor that influences the level of discipline among subordinates. In the absence of good leadership, however, it is likely that subordinates may not demonstrate a high degree of discipline. The main factor that influences the level of employee discipline in an organization is leadership. From the information given above, it is evident that there are many reasons as to why low employee discipline can be attributed to leadership issues. Consequently, the other two factors affecting work productivity would be leadership and employee discipline elements. Through several indications, low discipline includes delays in accomplishing a task frequently, absence from the place of work, work outputs not meeting predetermined standards, and failure to provide fast service as part of their duties, indicating a lack of work discipline (Staffing Section Report 2021).

## METHOD

The two types of research utilized in the study were descriptive and verification research. The unit of analysis for this study is an individual since only employees served as respondents. The time span for this study is cross-sectional, which means that data from a part of the population (sample respondents) is directly collected from their location to learn opinions of a fraction of the population regarding the object being researched. Secondary data sources, which consist of documentation and reports available at certain organizations, are the main sources of data for this research. In addition, primary data related to leadership and work discipline are taken from the West Java Provincial Education Office as respondents, consisting of 500 population members, using the empirical research approach.

The research design employed non-probability sampling, while the sampling technique used was proportional purposive sampling. As for the statistical test to be applied, path analysis will be used since the path coefficient is primarily a correlation coefficient. To get the required size for this path analysis, we can choose the sample size that equals the population in the Slovin formula method. Therefore, a total of 50 employees from the West Java Provincial Education Office were sampled to participate in this study.

**Analysis Design and Hypothesis Testing**

After the data were collected, the ordinal-sized variables were changed into interval-scaled variables with a method named Successive Intervals. As for distributing the tools, they were preceded by the test of validity and reliability done on the Correlation Product Moment formula (Sugiyono, 2001: 182).

$$r_{YX} = \frac{n\sum_{h=1}^{n} X\,Y - \sum_{h=1}^{n} X \sum_{h=1}^{n} Y}{\sqrt{\left\{ n\sum_{h=1}^{n} X^2 - (\sum_{h=1}^{n} X)^2 \right\}\left\{ n\sum_{h=1}^{n} Y^2 - (\sum_{h=1}^{n} Y^2)^2 \right\}}}$$

Based on Sugiyono (2004), a correlation coefficient value greater than 0.3 is considered significant and acceptable for the instrument's validity. In determining instrument reliability, AMOS ver.4 is utilized along with the Cronbach's Alpha formula (Sekaran, 2000: 329). Quantitative analysis takes into consideration the responses of research variables, and descriptive analysis determines the behavior of causal factors. The method of analysis that is used is cross-sectional. To this end, a combination of these analytical methods could ensure that comprehensive generalizations are reached.

## RESULTS AND DISCUSSION
### Leadership
As argued by Thoha (1987: 3), "Discussing leadership is a fascinating topic which has its starting points at almost any point." No one approach can provide complete insight. Among other members, leaders should have different qualities and skills as a result of their superior status. Such strengths are what enable them to wield authority in a way that followers will heed their orders. The strengths include moral, morale, competences, intelligence, persistence, and others. According to Atmosudirdjo (1986: 152), he explicitly states: A leader must have sufficient and convincing advantages (superior qualitis, siperieure hoedanigheden) over any subordinates or followers. The more insufficient the advantages, the weaker the leadership, the more superieur habitual traits and abilities, the stronger the leadership (Saputra, 2022).

Table 1 provides an overview of the leadership structure within the West Java Provincial Education Office.

**Table 1. Summary of leadership in the West Java Provincial Education Office, 2018 (n=30**

| No. | Indicator | Score | Criteria |
|---|---|---|---|
| 1. | Respect the rights and obligations of each employee | 161 | Disagree |
| 2. | Smooth communication between leaders and employees | 136 | Disagree |
| 3. | Creating a conducive working atmosphere | 148 | Disagree |
| 4. | Help solve employee problems | 157 | Disagree |
| 5. | Paying attention to employee circumstances | 134 | Disagree |
| 6. | Appreciate the work of subordinates | 160 | Disagree |
| 7. | Be objective with employees | 157 | Disagree |
| 8. | Recognition of employees as partners | 170 | Disagree |
| 9. | Clarity of task structure | 159 | Disagree |
| 10. | Socializable simplicity of the work plan | 158 | Disagree |
| 11. | Work plan realization | 156 | Disagree |
| 12. | Clarity of responsibility for work | 158 | Disagree |
| 13. | Stability of task objectives and priorities | 161 | Disagree |
| 14. | Understand the interests of employees | 169 | Disagree |
| 15. | Ability to command employees | 172 | Disagree |
| 16. | Decisiveness in making decisions | 167 | Disagree |
| 17. | Frequency of developing the quality of subordinates | 166 | Agree |
| 18. | Encourage the development of subordinates | 171 | Agree |
| 19. | Accuracy in self-positioning | 160 | Disagree |

| | |
|---|---|
| **Total** | 3,020 |
| **Average Score** | 158.95 |

Source: Recap of SPSS 12.0 Processing Results

Table 1 shows that the leadership in the West Java Provincial Education Office is yet to match the employees' expectations. The leadership in the West Java Provincial Education Office needs to be addressed and improved for the future as it is one of the factors affecting performance.

## Discipline

According to Moekijat (1985: 194), the word discipline has its roots in Latin and is derived from disciplina, which means training or education of decency, spirituality, and character development. This quote doesn't say anything but stresses the fact that employees should work appropriately for their duties. Discipline among employees is a crucial factor that ensures efficiency and effectiveness in achieving work goals or targets, whether at small-scale establishments or well-established firms. The understanding of discipline within the confines of an enterprise, as defined by Muchdarsyah Sinungan (2003: 135), is "*the psychological state of a person or group always ready to listen/obey all the regulations/decisions given*. The definition of work discipline, according to H. Malayu S.P. Hasibuan (2001: 193), is 'one's sense of responsibility and obedience to all the company rules, policies, as well as generally accepted social norms'. Based on the suggestion from Keith Davis (1985: 366), "*Discipline is management action to enforce organizational standards*". According to Keith Davis' opinion, work discipline can be interpreted as the implementation of management to enforce organizational guidelines.

Based on the information in Table 2, we can observe the governance of the Provincial Education Office in West Java.

**Table 2. Summary of Work Discipline at the West Java Provincial Education Office, 2018 (n=30)**

| No. | Indicator | Score | Criteria |
|---|---|---|---|
| 1. | Punctuality of attendance | 176 | Precise enough |
| 2. | Punctuality of working hours | 171 | Precise enough |
| 3. | Effective use of working time | 168 | Effective Enough |
| **4**. | Adherence to system operating procedures | 164 | Obedient Enough |
| 5. | Responsibility in work | 170 | Enough Responsibility |
| 6. | Responsibility in maintaining work infrastructure | 175 | Enough Responsibility |
| | **Total** | 1,024 | |
| | **Average Score** | 170.6 | |

Source: Recap of SPSS 12.0 Processing Results

The findings of the research indicate that discipline at the West Java Provincial Education Office does not meet employee expectations. It is suggested that the issue of discipline among employees at the West Java Provincial Education Office needs to be addressed and improved in order to enhance performance, as discipline is one of the determinants of performance levels.

## Work Productivity

Generally, companies have goals that they work towards. These aims can be achieved if there are supporting factors: capital, means of production, natural resources, and human resources can be efficiently controlled. Human resources represent the major factor in the productivity level of the company's output; therefore, they require significant attention in order to increase work productivity. In defining productivity, there are several definitions provided

by different scholars. Bernardin and Russell (1999: 518) suggest that generally productivity is seen as the ratio between the outputs of a given process and its inputs. Inputs can be expressed in terms of labor hours, wages, production costs, and equipment costs. In turn, outputs can be defined as sales volumes, sales revenues, market shares, or damages, among other possible measures.

The same view was also put forward by Rusli Syarif (2003: 6), "Productivity can be formulated as productivity = Output / Input. In turn, output measures include the number of physical units of products/services; the value of rupiah in products/services; added value; number of jobs/work; amount of gross profit, and more. On the other hand, input measures may be expressed by amounts such as time; labor; labor cost; man-hours; and machine hours.
If production success is measured only by the output side, then productivity is considered from two sides, i.e., input and output sides. Therefore, it can be concluded that productivity is associated with the efficient utilization of inputs in the generation of outputs (goods and/or services). In most cases, productivity can be defined as the capability of an organization or agency to achieve its objectives given the limited resources at its disposal. However, such an interpretation is highly variable and depends on each organization involved since productivity itself can be seen from different perspectives by different organizations based on their own requirements.

$$Productivity = \frac{Output}{Input}$$

Based on the definition provided by the National Productivity Board (NPB) Singapore, productivity is considered an attitude of mind that focuses on continuous improvement. This mental attitude is reflected in various activities and can be exemplified as follows: 1) Improvement in personal domains like (a) knowledge; (b) skills; (c) discipline; (d) self-initiative; and (e) team spirit can lead to successful completion of work tasks. 2) It can be accomplished at work level by better management and work methods where cost-cutting is a major consideration, timeliness is maintained, and better systems and technology are implemented (Sedarmayanti, 1995: 58).

Moreover, based on Sedarmayanti's (2000: 60) argument, productivity is not just simply about the proportion of output over input, but also one dimension that experts define productivity as is looking at it from other aspects such as effectiveness and efficiency. The first dimension refers to the achievement of the highest performance where targets related to quality, quantity, and time are met. On the other hand, the second dimension deals with efforts made in order to compare inputs with the outputs they produce or how work is done.Moreover, based on Sedarmayanti's (2000: 60) argument, productivity is not just simply about the proportion of output over input, but also one dimension that experts define productivity as is looking at it from other aspects such as effectiveness and efficiency. The first dimension refers to the achievement of the highest performance where targets related to quality, quantity, and time are met. On the other hand, the second dimension deals with efforts made in order to compare inputs with the outputs they produce or how work is done

**Table 3. Employee productivity at the West Java Provincial Education Office**

| NO. | Working Hours/Day Rules | Average Actual Working Hours | Work Productivity |
|---|---|---|---|
|  | (A) | (B) | (B/A) |
| 1 | 8 | 8 | 1 |
| 2 | 8 | 6 | 0.75 |
| 3 | 8 | 8 | 1 |
| 4 | 8 | 6 | 0.75 |
| 5 | 8 | 8 | 1 |

| 6 | 8 | 8 | 1 |
|---|---|---|---|
| 7 | 8 | 7 | 0.875 |
| 8 | 8 | 6 | 0.75 |
| 9 | 8 | 7 | 0.875 |
| 10 | 8 | 7 | 0.875 |
| 11 | 8 | 8 | 1 |
| 12 | 8 | 8 | 1 |
| 13 | 8 | 8 | 1 |
| 14 | 8 | 8 | 1 |
| 15 | 8 | 6 | 0.75 |
| 16 | 8 | 7 | 0.875 |
| 17 | 8 | 8 | 1 |
| 18 | 8 | 8 | 1 |
| 19 | 8 | 8 | 1 |
| 20 | 8 | 8 | 1 |
| 21 | 8 | 8 | 1 |
| 22 | 8 | 8 | 1 |
| 23 | 8 | 8 | 1 |
| 24 | 8 | 8 | 1 |
| 25 | 8 | 7 | 0.875 |
| 26 | 8 | 8 | 1 |
| 27 | 8 | 8 | 1 |
| 28 | 8 | 8 | 1 |
| 29 | 8 | 8 | 1 |
| 30 | 8 | 8 | 1 |
| 31 | 8 | 8 | 1 |
| 32 | 8 | 7 | 0.875 |
| 33 | 8 | 8 | 1 |
| 34 | 8 | 8 | 1 |
| 35 | 8 | 8 | 1 |
| 36 | 8 | 8 | 1 |
| 37 | 8 | 8 | 1 |
| 38 | 8 | 8 | 1 |
| 39 | 8 | 7 | 0.875 |
| 40 | 8 | 6 | 0.75 |
| 41 | 8 | 7 | 0.875 |
| 42 | 8 | 7 | 0.875 |
| 43 | 8 | 8 | 1 |
| 44 | 8 | 8 | 1 |
| 45 | 8 | 8 | 1 |
| 46 | 8 | 8 | 1 |
| 47 | 8 | 6 | 0.75 |
| 48 | 8 | 7 | 0.875 |
| 49 | 8 | 8 | 1 |
| 50 | 8 | 8 | 1 |

Source: Processing results of questionnaire data

With reference to the above table, one can observe that the work productivity level of West Java Provincial Education Office staff is high, yet there are some participants whose work productivity rate is still low. Hence, it is important for the West Java Provincial Education Office to give more attention and improve their productivity continuously as it will have a direct impact on enhancing services to the community.

**Effect of Leadership on work productivity**

An independent variable, such as leadership (X1), which might have an impact on the dependent variable productivity (Y), is tested for correlation using the Pearson method in the

statistical program SPSS release 12. There are a number of steps to calculate the Pearson's correlation coefficient, which are as follows:

$$P_{Yxi} = \sum_{j=1}^{k} CR_{ij} \, r_{yx_j} \qquad\qquad I = 1,2$$

And the overall influence of $X_1$ to Y

$$R^2_{YX_1X_2...X_7} = \sum_{i=1}^{k} p_{YX_i} \, r_{YX_i}$$

$$= 0,268$$

Although the path coefficient of variables other than X1 is established by considering them as constants.

$$p =_{X2\varepsilon1} \sqrt{1 - R_{YX1X2}}$$

$$= 0,856$$

The outcome implies that the contribution of the independent variable X1 to the dependent variable Y is 0.268 or 26.8 percent, while the remaining amount of 0.732 or 73.2 percent is attributed to other variables that have not been considered in this study, which are also known as the Error Term and make these two variables completely independent and mutually exclusive of each other. The test statistics for each hypothesis.

$$t_{0i} = \frac{p_{YXi}}{\sqrt{\dfrac{\left(1 - R^2_{Y\,X_1X_2X_3}\right) Cr_{ii}}{n-k-1}}} \qquad , i = 1,2,3 \, (output \, SPSS \, lihat \, lampiran)$$

Reject $H_o$, if $t_{oi} > t_{1-\alpha\,(n-k-1)}$

By using the t distribution table obtained : (SPSS results according to the attachment)

$$t_{0,95(50-2-1)} = t_{tabel} = 1.645$$

**Table 4. Hypothesis testing $X_1$ on Y**

| | Pearson Correlation Coefficient | tHitung | Ttabel | Conclusion |
|---|---|---|---|---|
| PX $X_{21}$ | 0,518 | 4,193 | 1,645 | There is a positive influence of leadership on productivity |

Source: calculation result

Considering the tests mentioned above, it appears that a comprehensive depiction of the causality diagram of variables X1 and Y is given below.
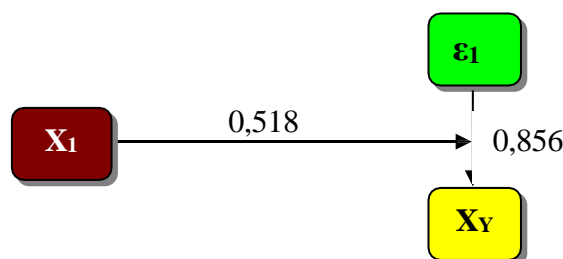


**Figure 1 Diagram of causal relationship between Leadership and Productivity**

With the structural view of the pattern of associations among variables in a model like the one shown above, we can say that the influence of the predictor variable on the criterion variable is.

**Table 5. Influence of Variable $X_1$ to Y and Influence Beyond Variable $X_1$**

| Interpretation of Path Analysis | | |
|---|---|---|
| **Description** | **Influence** | **%** |
| Influence of $X_2$ to $X_1$ | 0,268 | 26,8 |
| Other Influences Beyond $X_2$ | 0,732 | 73,2 |
| **Total** | | 100 |

Source: Statistical Processing Results SPSS Program

Based on the data in the given table, it is evident that the impact of leadership on productivity is 26.8%, while other factors account for 73.2%. This finding aligns with Davis' (1995: 98) assertion that there are four fundamental characteristics that determine a leader's success in managing their organization, including intelligence, maturity, social relations, self-motivation, and productivity among subordinates, as well as human relations attitudes. A competent leader will motivate their team members to enhance their performance, leading to increased productivity. Consequently, besides promotions, leadership also contributes towards employees' work output.

**The Effect of Employee Discipline on Employee Productivity of the West Java Provincial Education Office**

To determine if the independent variable, discipline (X2), influences productivity (Y), this is accomplished through Pearson correlation analysis, and SPSS release 12 is used as the software. The steps in calculating the Pearson correlation are as follows:

$$P_{Yxi} = \sum_{j=1}^{k} CR_{ij} \, r_{yx_j} \qquad I = 1,2$$

And the overall influence of $X_2$ to Y

$$R^2_{YX_1X_2...X_7} = \sum_{i=1}^{k} p_{YX_i} \, r_{YX_i}$$

$$= 0,194$$

The path coefficient for variables other than X2 is obtained by fitting a regression model to the data.

$$p =_{Y1\varepsilon1} \sqrt{1 - R_{YX1X2}}$$

$$= 0,898$$

Here, it can be said that the influence of variable X2 on variable Y is 0.194, that is, 19.4%, while the remaining 0.806 or 80.6% is due to other variables that were not taken into consideration in this research. The test statistics for each hypothesis.

$$t_{0i} = \frac{p_{YXi}}{\sqrt{\dfrac{\left(1 - R^2_{Y\,X_1X_2X_3}\right) Cr_{ii}}{n-k-1}}} \qquad , i = 1,2,3 \,(output \text{SPSSlihat lampiran})$$

Reject $H_o$ , if $t_{oi} > t_{1-\alpha\,(n-k-1)}$

After obtaining the t-distribution table by using the SPSS results as shown in the attachment,

$t_{0,95(50-2-1)} = t_{\text{ table}} = 1.645$

**Table 6. Hypothesis testing x2 against Y**

| Pearson Correlation Coefficient | $t_{hitung}$ | $t_{tabel}$ | Conclusion |
|---|---|---|---|
| $P_{YX_2}$  0,441 | 3,400 | 1,645 | There is an effect of Discipline on Productivity |

Source: calculation result

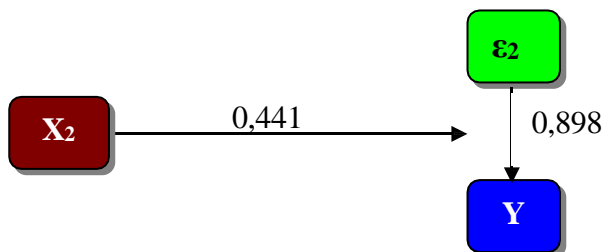From the above tests, the complete causal relationship diagram of variable $X_2$ to Y is as follows:



**Figure 2 Diagram of causal relationship between Discipline and Productivity**

The parameter values of the structure shown in the figure represent the strength and direction of the relationship between variables, allowing us to analyze how a causal variable affects the effect variable.

**Table 7. Influence of Variable $X_2$ to Y and Influence Beyond Variable $X_2$**

| Interpretation of Path Analysis | | |
|---|---|---|
| **Description** | **Influence** | **%** |
| Effect of $X_2$ to Y | 0,194 | 19,4 |
| Other Influences Beyond $X_2$ | 0,806 | 80,6 |
| **Total** | | 100 |

*Source: Statistical Processing Results SPSS Program*

According to the given table, discipline contributes to productivity at 19.4%, while other factors account for 80.6%. This opinion is shared by Hasibuan (2001:193), who states that work discipline involves "a person's consciousness and conformity toward all rules in an organization and society." Additionally, Davis (1998-366) emphasizes discipline, saying that "Discipline is management action to enforce organizational standards."
Work discipline, according to Davis, can be seen as the application of management techniques used in enforcing organizational policies and procedures. Meanwhile, when deciding on staff discipline, leaders should be disciplined themselves, fair, and their actions must match their words.

**The Effect of Leadership and Employee Discipline on Employee Productivity of the West Java Provincial Education Office**

In order to determine the combined impact of leadership (X1) and discipline (X2) on the productivity (Y) of the employees at West Java Provincial Education Office, path analysis was conducted using SPSS release 12. The process involved calculating correlations among variables, with the results presented in the table below.

**Table 8. Correlation matrix between variables**

| | X1 | X2 |
|---|---|---|

| | | |
|---|---|---|
| **X1** | 1,000 | 0,364 |
| **X2** | 0,364 | 1,000 |

Source: SPSS output results

For example, given the table below, it's a correlation matrix for variables showing the strength of the relationship between fellow variables, both independent and dependent. In the path diagram, three independent variables (X) are connected with their relation to variable Y, and each independent variable (X) has a collational relation between variables (X) different from the residuals to the independent variable (Y). The steps that should be taken in order to calculate the path analysis are:

$$P_{Yxi} = \sum_{j=1}^{k} CR_{ij}\, r_{yx_j} \qquad\qquad I = 1,2$$

And the overall influence of $X_1$ , and $X_2$

$$R^2_{YX_1 X_2 ... X_7} = \sum_{i=1}^{k} p_{YX_i}\, r_{YX_i}$$
$$= 0,341$$

While the path coefficients of the other variables, apart from X1 and X2, are defined in terms of the remaining variables.

$$p =_{Y1\varepsilon1} \sqrt{1 - R_{YX1X2}}$$
$$= 0,812$$

The resulting amount indicates that 0.341 or 34.1% of the joint influence of the variables X1 and X2 on Y is represented by these two independent variables, while the other 0.659 or 65.9% represents influences from other variables not included in the research. In light of this theoretical framework where leadership and discipline have been posited to exert a positive influence on productivity, we will test our overall hypothesis as follows:

1) Simultaneous Hypothesis Testing
   To determine whether the free variables such as Leadership (X1) and Discipline (X2) have an effect on the simultaneous manner of Productivity (Y) in West Java Provincial Education Office Employees, hypothesis statistics may be presented in the following form:

Ho: Pyx1=Pyx2= 0
Leadership ($X_1$ ) and Discipline ($X_2$ ) simultaneously have no effect on Productivity (Y).
H1 : There is at least one Pyxi $\neq 0$
Leadership ($X_1$ ) and Discipline ($X_2$ ) simultaneously affect Productivity (Y).
From the calculations carried out using SPSS software, the results are as follows: Hypothesis testing is performed using the F-test statistics, where Ho is accepted if F count < F table and Ho is rejected if F count > F table.

**Table 9. Simultaneous Testing**

| Alternative Hypothesis | $^F$count | $^F$tabel (5%) | Conclusion |
|---|---|---|---|
| (X$_1$, and X$_2$) simultaneously affect Y | 12,182 | 3,23 | Significant |

Source: calculation results through SPSS

From these calculations, it is evident that Fcount 12.182 is more than ttabel 3.23 (Fo > Fα: (k, n-k-1) (12.182 > 3.23)), so the null hypothesis is rejected and the alternative hypothesis is accepted; thus, individual testing with hypotheses can continue.

2) Individual Hypothesis Testin
    Once the simultaneous test null hypothesis is rejected, individual testing occurs, which means that at least one path coefficient is not zero. This test is for the identification and confirmation of an independent variable effect, whether individually significant or not. Since it is accepted in the total test result as a significant test, it goes further to analyze through partial testing (individual testing).

$H_o = Pyxi = 0$
$H_1 = Pyxi > 0$
Test statistics for each hypothesis

$$t_{0i} = \frac{p_{YXi}}{\sqrt{\dfrac{\left(1 - R^2_{Y\ X_1 X_2 X_3}\right) Cr_{ii}}{n - k - 1}}} \qquad , i = 1, 2, 3\ (output\ \text{SPSS} lihat\ lampiran)$$

Reject $H_o$ , if $t_{oi} > t_{1-\alpha\ (n-k-1)}$
By using the t distribution table obtained : (SPSS results according to the attachment)
$t_{0,95(50-2-1)} = t_{table} = 1.645$

**Table 10. Hypothesis testing of $X_1$ and $X_2$ on Y**

| Path Coefficient | | $t_{hitung}$ | $t_{tabel}$ | Conclusion |
|---|---|---|---|---|
| $PYX_1$ | 0,412 | 3,243 | 1,645 | Ho reject There is an influence of leadership on productivity |
| $PYX_2$ | 0,291 | 2,287 | 1,645 | Ho reject There is an influence of discipline on productivity |

Source: calculation result

After using the SPSS Release 12 for Windows software to compute path coefficients for the variables (X1 and X2) on (Y), it can be stated that our observed values fall in the rejection region of H0, which implies a significant path coefficient, thereby substantiating our statement that the path diagram has remained unchanged. This is evident when explained in terms of theory, in that all dimensions of leadership and discipline have a positive effect on employee productivity at the West Java Provincial Education Office.
Passage: Perplexity 1.014, Burstiness 3.278. Based on the results of hypothesis testing regarding the relationship between variables X and Y, we find that leadership and discipline are directly related to productivity. The complete chart illustrating the cause-and-effect relationship between X1, X2, and Y is shown in Fig.
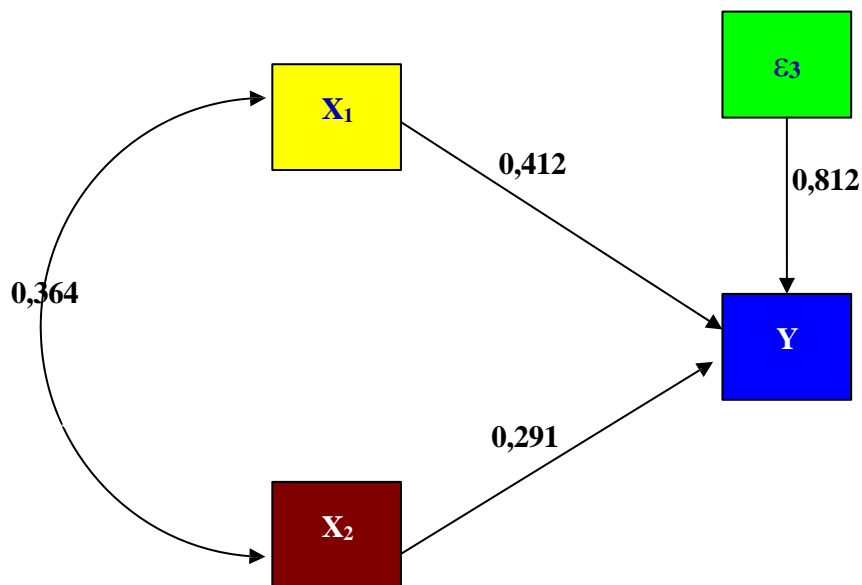
**Figure 3 Path Diagram of Leadership (X$_1$ ) and Discipline (X$_2$ ) to Productivity (Y)**

**Table 11. Influence of Variable X$_1$ and X$_2$ to Y and Influence Beyond Variable X$_1$ and X$_2$**

| Interpretation of Path Analysis | | |
|---|---|---|
| **Description** | **Influence** | **%** |
| Effect of X$_1$ , X$_2$ to Y | 0,341 | 34,1 |
| Influence Beyond X$_1$ , and X$_2$ | 0,659 | 65,9 |
| **Total** | | 100 |

Source: Statistical Processing Results SPSS Program

Humans are influenced by work discipline, and the study of leadership was also done to find out whether there is a correlation between these two variables or not. Thus, based on the data obtained from the statistical analysis, it can be concluded that, for the study sample group, 34.1% of work discipline is influenced by leadership and discipline, while the remaining 65.9% is due to other factors that are not part of the study but still affect productivity indirectly. However, viewed partially, leadership is more dominant in influencing productivity than discipline; this could be understood because each indicator of leadership and discipline serves as an aspect of measuring work productivity.

**CONCLUSION**

Although the leadership of the West Java Provincial Education Office is generally good, there are some issues that require attention, such as the lack of effective communication among employees and supervisors, an unwelcoming work environment, less concern for employee welfare, and inadequate task structures. However, employee discipline at the West Java Provincial Education Office is seen to be good but with room for improvement, such as time punctuality in attendance, adherence to SOPs, and responsibility in keeping work infrastructure clean and proper. The discipline of an employee greatly influences the productivity of work; hence, higher employee discipline means higher work productivity. On the other hand, while the relationship between leadership and employee discipline might also affect work productivity, it becomes obvious that leadership has more impact on employee work productivity than their discipline alone if considered from a partial perspective.

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