Employee Productivity with Work Motivation as Intervening Variables at PT Telekomunikasi Indonesia, Tbk Medan

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Keywords: Job Promotion, Work Environment, Employee Productivity, Work Motivation

Abstract: This study aims to analyze the effect of job promotion and work environment partially or simultaneously on employee work productivity with work motivation as an intervening variable at PT Telekomunikasi Indonesia, Tbk Medan. While the data analysis technique used is using Path Analysis with statistical techniques that are relatively complex partially or simultaneously. The results of this study are partially or simultaneously job promotion and work environment affect work motivation. Partially simultaneous job promotion and work environment have a significant effect on work productivity. Work motivation has not been able to mediate (intervening) of job promotion and work productivity. Work motivation can mediate (intervening) the influence of work environment on work productivity.

1 INTRODUCTION

Human resources are the key to the success of a company in carrying out its operational activities. In each company, the human element or labor is the main driving force in the activity process to achieve a goal. As we already know the purpose of a company one of which is the presence of employees who work efficiently. And the efficiency of a company is very dependent on the good and bad development of human resources in the company in order to increase the work productivity of these employees. Promotion is a separation that enlarges the Authority and Responsibility of employees to a higher position within an organization so that the obligations, rights, status and income are greater. The existence of a promotion is expected to be able to make the human resources in the organization or company able to show their best abilities, because promotion is a stimulus or encouragement for them to compete in providing the best capabilities they have.

The work environment is everything that is around the workers and can affect themselves in carrying out the tasks assigned.

Companies are required to provide and create a comfortable and sufficient work environment for their employees. The work environment for employees has now become one of the important factors in maintaining employee work productivity, because not all employees will feel satisfied with their work by looking at and weighing work environment factors. A good work environment cannot be created by itself, but companies that create and design work environments for employees and employees feel satisfied when they feel the environment in which they work is in accordance with the conditions or conditions of the work environment they have been expecting.

Productivity is the relationship between inputs and outputs of a productive system. Employees are required to have high work productivity, because with the existence of high work productivity, the achievement of company goals will be carried out well. Achieving high work productivity is not easy. Company management must be able to manage human resources in the company to work effectively and efficiently. This can be realized if the company provides an opportunity for each employee to be promoted. In addition, company management must also be able to provide a good working environment to create high work productivity.

Motivation is one of the things that affect human behavior, motivation is also referred to as a driver, desire, support or needs - needs that can make someone excited and motivated to reduce and fulfill their own impulses, so they can act and act...
according to certain ways that will bring in the optimal direction.

2 LITERATURE REVIEW

Job Promotion.
Definition Job promotion is the way to increase employee productivity. Job promotion can also be interpreted as a career development of someone who works in a company. Promotion has an important role for employees, even a dream that is always looked forward to. With the existence of promotion means that there is trust and recognition of the abilities and skills of the employee concerned to occupy a higher position. Thus, promotions will provide social status, authority (responsibility), responsibility (Responsibility), and income (Outcomes) that are getting bigger for employees.

Siagian (2010: 169): "Promotion is when an employee is transferred from one job to another whose responsibility is greater, the level in the hierarchy of positions is higher and his income is also greater". Handoko (2008: 121): "Careers as a sequence of promotion or transfer (transfer) laterally to more positions according to responsibility to locations that are better in or cross the hierarchy of work relations during one's work life"

Job Promotion Indicators
Indicators of job promotion, according to Hasibuan (2007: 107) include things "Social status, Authority (Authority), Responsibility (Income) and Income (Outcomes)":
1. Social status
   Employees who are promoted at a higher career level will be able to improve social status in their lives.
2. Authority
   Job promotions given to employees will increase / expand their authority in carrying out work activities.
3. Responsibility
   Job promotion requires a higher responsibility in terms of work where promoted employees will have greater responsibility from higher positions.
4. Income (Outcomes)
   With the promotion, the employee's income will be higher. This is due to the position promotion, the employee will get a higher position than before.

Work Environment
Work environment is something that is around the company that affects the workings and productivity of employees. For more details, the understanding of the work environment will be presented by several experts, including: Amirullah and Budiyono (2004: 4): "The organizational environment can be interpreted as influencing forces, both directly and indirectly on organizational performance". Nitisemito (2006: 109): "The work environment is everything that exists around the workers and can affect themselves in carrying out the tasks that are charged". From the definition above it can be concluded that the work environment is a condition that can be prepared by the management of the company concerned when the workplace is formed by the company. The company management should consider the work environment for company employees.

Work Environment Indicators
Gibson and Ivanevich (1997) in Ricky (2011: 34): "Perception of the work environment is a series of things that are perceived by people who work in an organizational environment and have a large role in influencing employee behavior". There are five aspects of perceptions of the psychological environment, which affect employee behavior, namely:
1) Work structure, which is how far the employee feels that the work given to him has a good work structure and organization.
2) Job responsibility, namely the extent to which employees feel that employees understand their responsibilities and are responsible for their actions.
3) Attention and leadership support, namely the extent to which employees feel that leaders often provide direction, confidence, attention and respect for them.
4) Working group cooperation, namely the extent to which employees feel there is good cooperation between existing working groups. Smooth communication, namely the extent to which employees feel that there is good, open and smooth communication between co-workers and leaders.

Work Productivity
Definition of Work Productivity, Hasibuan (2007: 94) is: "Comparison between output and input, where the output must have added value and better workmanship". According to Handoko (2008: 210): "Productivity is the relationship between inputs and outputs of a productive system". Whereas Triton (2010: 80): "Productivity has two dimensions. The
first dimension is productivity which leads to the achievement of maximum performance, namely the achievement of targets related to quality, quantity and time, the second is efficiency related to efforts to compare inputs with the realization of their use or how the work is carried out ".

Based on the above definition it can be seen that productivity is a comparison between the results obtained with the sacrifices that have been given. The sacrifice is not only labor but also contributes to other production factors, including capital and expertise. Low productivity will cause in-efficient use of labor which is also a waste for a company. Therefore the role of employees and leaders really determines the productivity of a company in achieving its goals.

**Work Productivity Indicator.**
Productivity measurement is an important management tool at all economic levels. In several countries and companies in recent years there has been an increase in interest in measure productivity. Productivity indexes are also useful in determining comparisons between temporal countries such as growth rates and productivity levels.

According to Gomes (2003: 160) indicators of productivity are:
1. **Knowledge.**
   That is a person's ability which is measured by his knowledge of things related to assignments, use of work tools and technical abilities of his work.
2. **Skills.**
   Is a specific skill that someone has related or related to the completion of tasks quickly and precisely.
3. **Abilities (Abilities).**
   That is the capacity or nature of the individual who was born or studied which allows one to perform or complete various kinds of tasks and work.
4. **Attitudes (Attitudes).**
   Namely the regularity of feelings and thoughts of someone who acts on aspects of the environment.

**Work Motivation**
Motivation is one of the things that affect human behavior, motivation is also referred to as a driver, desire, support or needs - needs that can make someone excited and motivated to reduce and fulfill their own impulses, so they can act and act according to certain ways that will bring in the optimal direction. Motivation functions as a driver or encouragement to employees to work hard for the achievement of good corporate goals, for more clarity following Rivai's opinion (2008: 445) "Motivation is a set of attitudes and values that affect individuals to achieve specific things according with individual goals. According to Greenberg and Baron in Wibowo (2011: 379) argue that "Motivation is a series of processes that arouse (arouse), direct (direct), and maintain (maintain) human behavior toward achieving goals.

According to Hasibuan (2005: 143) states that: "Motivation is the provision of driving power that creates the enthusiasm of one's work so that they want to work together, work effectively and be integrated with all the power to achieve satisfaction". According to Nawawi (2008: 351) states: "motivation is a condition that encourages or becomes because someone does an action / activity, which takes place consciously".

**Work Motivation indicators**
Employee motivation will be determined by the stimulus. The intended stimulus is the driving force of employee motivation, thus giving effect to the behavior of individual employees concerned. Motivational indicators according to Claude S. George in Hasibuan (2005: 163) are:
1) Fair and decent wages
2) Opportunities for advancement / promotion
3) Recognition as an individual.
4) Job security.
5) A good workplace.
6) Acceptance by groups.
7) Fair treatment.
8) Recognition of achievements

**Conceptual Framework**
Job promotion has an important meaning for the employees as a whole, with the opportunity to offer promotions, employees will be motivated to work together and achieve, finally the tasks given by the company will be carried out as well as possible and affect the work productivity of its employees. The higher the chance for promotion, the higher the productivity of his work. In addition to promotion, to create high employee productivity, a conducive and comfortable work environment is needed.

With the existence of the work environment, the employees at work will feel calm so that they can create optimal work productivity. Work motivation provided by the company can support employee work productivity.

Based on the description, the conceptual framework of this research is as follows:
Hypothesis
The hypotheses in this study are as follows:
1. Partially and simultaneously Job Promotion and Work Environment influences Work Motivation at PT Telekomunikasi Indonesia, Tbk Medan.
2. Partially and simultaneously Job Promotion and Work Environment have an effect on Employee Work Productivity at PT Telekomunikasi Indonesia, Tbk Medan.
3. Work motivation mediates (intervening) Job Promotion and Work Environment towards Work Productivity at PT Telekomunikasi Indonesia, Tbk Medan.

3 RESEARCH METHOD

The kind of research is quantitative descriptive research that is research that aims to describe or describe the characteristics of a situation or object of research, carried out through the collection and analysis of quantitative data and statistical testing.

The population of this study were 200 employees of the company with the Slovin formula taken as respondents totaling 67 respondents. The data analysis technique used was multiple regression analysis after fulfilling the classical assumptions concerning normality, heteroscedasticity, autocorrelation and multicollinearity. This study uses a simple path analysis model by calculating the values of direct and indirect correlation.

\[ Y = \alpha + \beta_1 X + \beta_2 Z + \epsilon \]

\[ Y = \alpha + \beta X + \epsilon \]

\[ Z = \alpha + \beta X + \epsilon \]

a. Direct effect:
   \[ X \rightarrow Z = PYX \]
   \[ X \rightarrow Y = PYX \]
   \[ Z \rightarrow Y = PYZ \]

b. Indirect effect:
   \[ X \rightarrow Z \rightarrow Y = (PYX)(PYZ) \]

c. Total effect:
   \[ X \rightarrow Z \rightarrow Y = (PYX) + (PYZ) \]

4 RESEARCH RESULT

Based on the test of the questions for Position Promotion variables (X1), Work Environment (X2), Work Productivity (Y) and Work Motivation (Z) it turns out that all questions have valid status because of the total score > r table.

The results of the reliability test of Job Promotion instruments (X1), Work Environment (X2), Work Productivity (Y) and Work Motivation (Z) from each question submitted can be seen in Table 1 below:

<table>
<thead>
<tr>
<th>Variable</th>
<th>Cronbach’s Alpha</th>
<th>N of Items</th>
<th>Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Job Promotion</td>
<td>0,764</td>
<td>8</td>
<td>Reliable</td>
</tr>
<tr>
<td>Work Environment</td>
<td>0,869</td>
<td>10</td>
<td>Reliable</td>
</tr>
<tr>
<td>Work Productivity</td>
<td>0,856</td>
<td>10</td>
<td>Reliable</td>
</tr>
<tr>
<td>Work Motivation</td>
<td>0,788</td>
<td>8</td>
<td>Reliable</td>
</tr>
</tbody>
</table>

Source: Research Results, 2018 (Data Processed)

Classical assumption test

1. Normality test

<table>
<thead>
<tr>
<th>Variable</th>
<th>Sig.</th>
<th>( \alpha = 5% )</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Job Promotion</td>
<td>0,102</td>
<td>0</td>
<td>Normal</td>
</tr>
<tr>
<td>Work Environment</td>
<td>0,694</td>
<td>,05</td>
<td>Normal</td>
</tr>
<tr>
<td>Work Productivity</td>
<td>0,057</td>
<td>0</td>
<td>Normal</td>
</tr>
<tr>
<td>Work Motivation</td>
<td>0,672</td>
<td>,05</td>
<td>Normal</td>
</tr>
<tr>
<td>Unstandardized</td>
<td>0,657</td>
<td>0</td>
<td>Normal</td>
</tr>
<tr>
<td>Residual</td>
<td></td>
<td>0</td>
<td>Normal</td>
</tr>
</tbody>
</table>

Source: Research Results, 2018 (Data Processed)

The results of normality test can be seen in Figure 2 below:
2. Multicollinearity Test

Tabel 3: Multicollinearity Test Results

<table>
<thead>
<tr>
<th>Variable</th>
<th>Tolerance</th>
<th>VIF</th>
</tr>
</thead>
<tbody>
<tr>
<td>Job Promotion</td>
<td>0.729</td>
<td>1.371</td>
</tr>
<tr>
<td>Work Environment</td>
<td>0.777</td>
<td>1.351</td>
</tr>
<tr>
<td>Work Motivation</td>
<td>0.799</td>
<td>1.316</td>
</tr>
</tbody>
</table>

Source: Research Results, 2018 (Data Processed)

All independent variables have a Variance Inflation Factor (VIF) number of less than 10, while the Tolerance value is close to 1, thus it can be concluded that the regression model does not have multicollinearity.

3. Heteroscedasticity Test

Figure 3: Heteroskedastisitas Test Result

If there is no clear pattern, and the points spread above and below the number 0 on the Y axis, heteroscedasticity does not occur. This means there is no heteroscedasticity in the regression model, so that a decent regression model is used to predict work productivity based on input from the independent variable.

Analysis of Multiple Linear Regression

Tabel 4: Analysis of Multiple Linear Regression Result

<table>
<thead>
<tr>
<th>Model</th>
<th>Standardize Coefficient</th>
<th>B</th>
<th>Std Error</th>
<th>Beta</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Constant</td>
<td>0.535</td>
<td>4.096</td>
<td>.133</td>
<td>.616</td>
</tr>
<tr>
<td>Job</td>
<td>0.925</td>
<td>.133</td>
<td>.092</td>
<td>.277</td>
</tr>
<tr>
<td>Promotion</td>
<td>0.290</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Work Environment</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Research Results, 2018 (Data Processed)

The multiple linear regression equation for two predictors (Job Promotion and Work Environment) is:

\[ Y = 0.535 + 0.925X_1 + 0.290X_2 \]

Based on the regression equation above it can be seen that:
1. 0.535 means: if the work productivity variable is not influenced by job promotion factors and the work environment is worth 0 then the work productivity of employees at PT. Telekomunikasi Indonesia, Tbk Medan is only 0.535 per one-unit.
2. 0.925 means: for each increase in the promotion variable by one unit, the work productivity of the employee will increase by 0.925 per one-unit assuming the work environment variable is considered constant.
3. 0.290 means: every increase in the work environment variable is one unit, then the work productivity of the employee will increase by 0.290 one-unit with the variable assumption that promotion is considered constant.

Determination Coefficient (R-Square)

Tabel 5: Determination Coefficient dan R-Square

<table>
<thead>
<tr>
<th>Mode</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.7963a</td>
<td>.6341</td>
<td>.6233</td>
<td>2.77182</td>
</tr>
</tbody>
</table>

Source: Research Results, 2018 (Data Processed)

Based on the results of the SPSS calculation, the R-Square value obtained is 0.6341 indicating that
around 63.41% of the Y variable (employee work productivity) can be explained by Job Promotion variables (X1) and Work Environment variables (X2). Practically it can be said that Job Promotion contributions (X1) and Work Environment variables (X2) to variable Y (employee Work Productivity) are 63.41%. The rest (100% - 63.41% = 36.59%) is influenced by other variables not examined in this study.

Simultaneous Test (F test)

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>852.317</td>
<td>426.159</td>
<td>55.468</td>
<td>.000a</td>
</tr>
<tr>
<td>Residual</td>
<td>491.712</td>
<td>7.683</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>1344.030</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Research Results, 2018 (Data Processed)

The value of F calculation above is 55.468 greater than Ftable of 3.13 with sig 0.000 < (0.05), indicating that Ho is rejected and Ha is accepted, means that Job Promotion variables (X1) and Work Environment variables (X2) simultaneously have an significant to Y (employee Work Productivity).

T test

<table>
<thead>
<tr>
<th>Model</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td>.131</td>
<td>.896</td>
</tr>
<tr>
<td>Job Promotion</td>
<td>6.957</td>
<td>.000</td>
</tr>
<tr>
<td>Work Environment</td>
<td>3.134</td>
<td>.003</td>
</tr>
</tbody>
</table>

Source: Research Results, 2018 (Data Processed)

Based on Table 7, it can be concluded as follows:

1) Effect of Job Promotion on employee work productivity
   The value of t calculation of 6.957 is greater than t table of 1.668 with probability t that is sig 0.000 smaller than the significance limit of 0.05. This means that Job Promotion variables (X1) partially have a significant effect on employee Work Productivity (Y).

2) The influence of the Work Environment on employee work productivity
   From Table 7, the value of t calculation of 3.134 is greater than t table of 1.668 with the probability of t being sig 0.003 smaller than the significance limit of 0.05. This means that the Work Environment variable (X2) partially has significant influence on employee Work Productivity (Y). Thus the work environment factors contribute to the work productivity of employees.

Significance of Position Promotion on Work Productivity Through Work Motivation

<table>
<thead>
<tr>
<th>Information</th>
<th>Path coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>PZX1</td>
<td>-1.287</td>
</tr>
<tr>
<td>PYX1</td>
<td>0.317</td>
</tr>
<tr>
<td>PyZ</td>
<td>0.136</td>
</tr>
</tbody>
</table>

Source: Research Results, 2018 (Data Processed)

Indirect Effect (IE) Job Promotion of Work Productivity through Work Motivation is:

\[ IE = (PZX1) (PyZ) = -1.287 \times 0.136 = -0.175 \]

The results of the hypothesis test of the influence of Job Promotion on Work Productivity through Work Motivation are smaller than the direct effect, Ha is rejected and H0 is accepted. This means that promotion through Work Motivation has no significant effect on Work Productivity.

\[ Py \times X1Z = 0.653 \]

Figure 4: Job Promotion path analysis of Work Productivity through Work Motivation
The results of path analysis show that Job Promotion have a direct effect on Work Productivity but Work Motivation cannot be an intervening variable on Work Productivity. The amount of direct influence is 0.317 while the amount of indirect influence is 0.142. Because of the value (X1ZY Z PX1), Work Motivation does not function as an intervening variable.

Significance of the Work Environment on Work Productivity Through Work Motivation

Indirect Effect (IE) on Work Environment variables on Work Productivity through Work Motivation:

Table 9: Intervening Variable Correlation Coefficient

<table>
<thead>
<tr>
<th>Information</th>
<th>Path coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>PZX₂</td>
<td>0.470</td>
</tr>
<tr>
<td>PYX₂</td>
<td>0.209</td>
</tr>
<tr>
<td>PyZ</td>
<td>0.136</td>
</tr>
</tbody>
</table>

Source: Research Results, 2018 (Data Processed)

Indirect Effect (IE) Work Environment of Work Productivity through Work Motivation is:

\[
\text{Indirect Effect (IE) = (PZX}_2\text{)} \times \text{PyZ} = 0.470 \times 0.136 = 0.064
\]

\[
X_1 \rightarrow Z \rightarrow Y = (PYX_2) + \text{(IE)} = 0.209 + 0.064 = 0.273
\]

Figure 5: Work Environment path analysis of Work Productivity through Work Motivation

The results of path analysis show that Work Environment have a direct effect on Work Productivity and can also indirectly influence Work Motivation (as an intervening variable) on Work Productivity. The magnitude of the direct effect is 0.212 while the magnitude of the indirect effect is 0.272. Because of the value (X2ZY > PX2), Work Motivation functions as an intervening variable.

Effect of Job Promotion and Work Environment on Employee Productivity

Job Promotion has a positive and significant influence on Employee Work Productivity. This is indicated by the results of the calculation (attached) of the t test, seen t count for the Job Promotion variable of 6,957 with a probability of 0.000. By using a 5% significance level obtained a probability value smaller than 0.05, which means that the hypothesis in this study is accepted. Thus it can be concluded that Job Promotion has a positive and significant influence on Employee Work Productivity.

Work Environment has a positive and significant effect on Employee Work Productivity. This is indicated by the results of the calculation (attached) of the t test, seen t count for the Work Environment variable of 3.134 with a probability of 0.003. By using a 5% significance level obtained a probability value smaller than 0.05, which means that the hypothesis in this study is accepted. Thus it can be concluded that the Work Environment has a positive and significant influence on Employee Work Productivity.

Based on the results of multiple linear regression it can be seen that the variables that have the greatest influence on Employee Work Productivity are Job Promotions that have regression coefficients of 0.925, then followed by the Work Environment variable has regression coefficient of 0.290. Nevertheless both of these variables have an equally important role in increasing Employee Work Productivity. The results of the R-Square determination coefficient test were 0.6341 indicating that Job Promotion contributions (X1) and Work Environment variables (X2) in explaining their effects on employee Work Productivity variables were 63.41%, the remaining 36.59% were influenced by other variables not examined in this study.

5 CONCLUSIONS

Simultaneously Job Promotion and Work Environment influence Work Motivation. Partially Job Promotion has a significant effect on Work Motivation, as well as the Work Environment has a significant effect on Work Motivation.

Simultaneously Job Promotion and Work Environment have a significant effect on Work Productivity. Partially Job Promotion and Work
Environment have a significant effect on Work Productivity. Work motivation has not been able to mediate (intervening) the effect of Job Promotion on Work Productivity. Work Motivation can mediate (intervening) the influence of the Work Environment on Work Productivity.

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