Increased Productivity Through Adaptive Behavior, Work Environment, and Training

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Abstract
This study aims to examine the relationship between adaptive behavior, work environment, training, and employee productivity. The sample for this study consisted of 235 employees of PT. Djarum Brak Sekarjati Jepara calculated using the purposive random sampling method. Data collection methods using the questionnaire method which is measured using a Likert scale. Regression analysis showed that there is a positive influence between adaptive behavior with employee productivity, there is a positive influence between the working environment and employee productivity, and a positive influence between training and employee productivity. Based on these results, it can be interpreted that the employees of PT. Djarum Brak Sekarjati have good adaptive behavior. This is supported by the environment and good training provided by the company to employees.

INTRODUCTION

An organization is a group of people who want to achieve a common goal. One human resource is one human resource. Human resources are the only resources that have abilities, abilities, skills, knowledge, power, and work (Gomes, 2003).

Human Resources has an important role in the growth and development of an organization. The success of an organization in achieving its goals must be supported by the human resources in the organization. Therefore, a good organization must be able to optimally manage human resources at all levels of the work performed. Being a challenge for organizations in creating human resources that produce optimal productivity to achieve the goals of the company or organization or compete in existing competitors. Employee productivity in the company is an important factor to be able to maintain the company's survival. Currently competition in the business world is getting tougher, so companies are required to be able to improve their quality.

A company should prepare itself to face the challenges that exist and actually humans play a big role in an organization or company (Tintri & Fitriatin, 2013). One of the company's efforts to improve competitiveness is to increase work productivity. However, increasing productivity is not an easy thing to do. Company leaders in general experience problems in increasing work productivity that requires a special approach in order to increase work productivity, especially from the employees of the company itself (Pratiguna, 2013). Performance shows what employees do, which may be in the form of the effectiveness of their task completed, cooperative relationships with other parties, the quality and quantity of their work output, and their presence at work (Martono et al., 2018). Productivity is defined as the extent to which an employee is able to complete his work in accordance with the quality and quantity set by the company, an employee's productivity can be measured from the total output generated in doing his work (Zivin & Neidell, 2011). An employee is said to be productive if the employee is able to produc-

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ce products according to the targets set by the company. High productivity will benefit both the company and employees, especially for their welfare. Thus, both companies and employees must strive to increase their productivity with a variety of policies that can efficiently increase employee productivity (Sulaeman, 2014).

The biggest challenge facing the company is to ensure that employee performance remains stable and even increases (Guntur, 2012). An employee who has good emotional intelligence, apparently not only able to improve performance, but also can reduce work stress (Fitriaastuti, 2013). For this reason, performance appraisal is needed in order to know the work results that have been achieved by employees (Sudarma, 2012).

According to Simanjuntak (1985), there are several factors that affect work productivity. These factors can be divided into three groups, namely factors relating to the quality and physical abilities of employees, supporting facilities, and infrastructure. In order to be productive, employees must be able to use five sources of work, both in the work environment and in the employee itself. The five sources include the use of the mind, use of physical/physical energy, use of time, use of space, and use of materials.

In order for productivity targets to be achieved, the company must provide a supportive work environment for its employees. According to Nawawi (2003), factors affecting the work environment include physical conditions (working conditions) and non-physical conditions (work climate). Meanwhile, according to Sedarmayanti (2009), factors that can affect the work environment such as air temperature, job security, and employee relations. The first factor is air temperature, humans need oxygen to maintain survival and metabolism.

The object of this research is PT. Djarum Brak Sekarjati Jepara, located in the village of Brantak Sekarjati, Welahan, Jepara, Central Java, which is engaged in cigarette production. PT. Djarum Brak Sekarjati is a branch of PT. Djarum Kudus, which specializes in producing Djarum Chocolate cigarettes or is often despite with SKT (Hand Clove Cigarettes) because the process is still manual.

The number of Djarum Chocolate cigarettes production has decreased in 2018, where production levels can reach the target only in April, June, July, and November. The most shortage of goods production occurred in October where the target set was 45,989,000 sticks, but in reality, employees were only able to produce 45,734,000 sticks, resulting in a shortage of 255,000 sticks.

Based on the phenomena that exist at PT. Djarum Brak Sekarjati Jepara, there are several factors that are suspected to be the cause of the decline in employee productivity, such as adaptive behavior, work environment, and training. The large number of employees also demands that each employee is able to adapt to his environment, both with colleagues and with supervisors. However, frequent rolling positions to fill the positions of employees who are absent are prone to conflict. This is because not all employees know each other considering the number of employees as much as 1,504.

Based on the results of interviews, it is known that employees who experience conflict are usually absent immediately the next day, even some employees are given a warning letter. Of course this affects the level of productivity. This phenomenon is in line with research conducted by Marques et al. (2015) states that adaptive behavior has a positive and significant effect on individual and team productivity.

For employees, safe and healthy work environment will have a positive impact on employees who work. In addition, a work environment with healthy and safe characteristics can be trusted to spur increased employee productivity. This occurs because the number of days lost has decreased, increasing the efficiency, effectiveness, and quality of workers whose commitment can reduce employee health and safety costs, lower employee compensation rates and direct payments due to decreased claim submission (Rivai, 2009). The work environment of both physical and non-physical employees is recognized to affect employee productivity. This assumption is supported by the theory that illustrates that there is a relationship between the performance produced by employees with an adequate work environment. Mangkunegara (2004) stated that "Performance factors are divided into two namely internal and external". External factors are factors that affect the performance of someone who comes from the non-physical environment of the organization.

The work environment can create a binding work relationship between people in the environment (Ghoniyah, 2011). All employees know each other and are accustomed to communicating between employees which will create a conducive work environment (Kurniasih, 2014). Of social needs can be overcome with support of the company on a tour or recreation together.
with employees so that employee relations are closer, create working groups for employees so that the resulting performance will be maximal and create an event of intimacy between employees (Bachtiar, 2012). A suitable work environment can support the implementation of work so that employees have the spirit of work and improve employee performance, while the incompatibility of the work environment can create inconvenience for employees in carrying out their duties (Permansari, 2013).

Training and development are very important for the achievement of organizational performance and the company’s competitive advantage. Training is also a good practice in overcoming factors that reduce job satisfaction and employee performance. To achieve a training effect, training programs must be in accordance with work processes and company strategy (Martono et al., 2018). To improve the performance of learning and growth perspectives, employee skills, operations and maintenance techniques must be improved through training programs (Trihastuti, 2012).

Based on the results of interviews it is known that not all employees get training programs. The training program was only attended by a select few employees. Whereas the intensive training program held by the company will make employees absorb more knowledge, information, and hone their expertise. This can make the employee’s tendency to work harder because in his job because it is felt easier (Fuanida, 2013). The training program also aims to close the gap between employee skills and job demands, while also improving employee efficiency and effectiveness in achieving work goals (Umar, 2003). Research shows that training has a positive impact on employee productivity at the Electricity Supply Company of Pakistan. The findings also show that training, work involvement, feedback, compensation are factors that increase employee productivity (Sabir et al., 2014). Training has a significant effect on work productivity and the application of types of training in work behavior will greatly affect increased work productivity (Moses, 2012).

Based on this background, the purpose of this study is to examine the effect of adaptive behavior on the productivity of employees of PT. Djarum Brak Sekarjati. To examine the effect of the work environment on employee productivity of PT. Djarum Brak Sekarjati. To test the effect of training on employee productivity of PT. Djarum Brak Sekarjati.

Hypothesis Development

The development of companies is characterized by a changing and dynamic environment where the need for adaptive workers is increasingly important. For example, employees must often adjust to new ways of doing their work, because technological change and automation continue to change the nature of work assignments (Pulakos, 2015). Adaptability has a performance relationship in small scale businesses. In accordance with the strategy orientation paradigm, a company can achieve competitive advantage through adaptability (Widodo, 2013). Adaptive to a dynamic work environment is a necessity in the world of work today to increase employee productivity. Today there have been many studies identifying strong relationships between adaptive behavior and employee productivity. If the company wants to improve its performance, then they must develop the adaptive behavior of their employees. Therefore to achieve high productivity, company leaders must pay attention to one of the factors that influence it, among others, work morale, which is a mental attitude that is able to provide impetus for someone to be able to work harder, faster, and better (Mardjan, 2013).

Research conducted by Marques et al. (2015) shows the results that adaptive behavior has a positive and significant effect on employee productivity. This study is in line with research which states that adaptive behavior has a positive and significant effect on work productivity. Therefore, the hypothesis used is:

H1: The higher the level of employee adaptive behavior, the higher the productivity of PT. Djarum Brak Sekarjati Jepara.

In the work world every day employees are required to always maintain or increase their productivity at work. To lure employees to increase their productivity, companies often try to make employees comfortable in the office. Then, to be able to help increase its productivity, the company creates an office environment in a way that can make the work done more effectively and efficiently. According to Chan (2007) the importance of non-physical work environments is the importance of the role of external motivation in increasing employee productivity. An optimal non-physical work environment can increase competition within the company so that company productivity also increases (Palvalin 2017). Creating a pleasant work environment that can meet the needs of employees will provi-
de satisfaction and encourage their morale. Starting from the comfort of employees at work, a good relationship with colleagues can increase morale (Ratri, 2014).

Research conducted by Leblebici (2012) shows the results of the work environment have a positive effect on employee productivity. This research is supported by the results of research conducted by Palvalin (2017) which also shows the results that the work environment has a positive effect on employee productivity. This study is in line with research which states that the work environment has a positive and significant effect on work productivity. Therefore, the hypothesis used is:

H2: The higher the level of the Work Environment, the higher the productivity of PT. Djarum Brak Sekarjati Jepara.

Training is an activity to improve the quality of human resources by improving the ability to improve the skills and knowledge of employees held outside and within the company in order to achieve organizational goals. Good training is needed at all times, both for new employees and employees who have long worked at the agency. New employees who are always recruited by the company need training before carrying out the tasks that become their obligations. While for old employees they also still have to get training because of the demands of their current duties, or to prepare themselves since they will be transferred or will be promoted to another position (Rustiana, 2010).

Research conducted by Sabir et al. in 2014 on Electricity Supply Company of Pakistan employees, The main finding of this study is that training has a positive impact on employee productivity. Research from Halidu in 2015 at 10 selected Nigerian universities shows that training has a positive impact on the productivity of workers in academia. This study is in line with research which states that the physical work environment has a positive and significant effect on work productivity. Therefore, the hypotheses used are:

H3: The higher the level of training, the higher the productivity of PT. Djarum Brak Sekarjati Jepara.

Based on a number of theoretical studies and the results of the research above, a research framework is presented that is the effect of adaptive behavior, work environment, and training on employee productivity as follows:

![Figure 1. Research Figure](image)

METHOD

This type of research is quantitative research to examine the effect of adaptive behavior, work environment, and training on the work productivity of employees of PT. Djarum Brak Sekarjati. Called quantitative methods because this research is objective and the analysis tool is statistics. The design used in this research is the hypothesis testing study. In general, hypothesis testing studies aim to analyze, describe, and obtain empirical evidence of the pattern of relationships between two or more variables, both correlational, causality, and comparative (Wahyudin, 2015).

The type of data in this study is quantitative data. In this study, the quantitative data is the result of testing the analysis of the variables Adaptive Behavior, Work Environment, Training and Productivity. Data sources used in this study consisted of two kinds, namely primary data and secondary data. Primary data is data directly obtained from data sources by researchers for specific purposes. Primary data obtained from respondents, namely employees of PT. Djarum Brak Sekarjati Jepara with 235 employees. The primary data in this study were respondents’ responses to the questionnaire. Secondary data is a source of data obtained indirectly and is available before conducting research. This study uses secondary data obtained through information from PT. Djarum Brak Sekarjati Jepara, as well as previous research related to this research. Data collection methods are done through interviews, questionnaires, and observations (Sugiyono, 2012).

In this study the population taken was all employees roll of PT. Djarum Brak Sekarjati Jepara, totaling 567 employees. obtained a minimum sample size that must be used is 235 respondents. Taking the number of samples in this study using the Slovin formula because the population in this study has known the number.
The research variables used in this study consisted of four variables. First, Adaptive Behavior as an independent variable. Adaptive Behavior is all activities that encourage the individual to achieve certain goals, where the activity in question is all that he responds, thinks, feels activates activities and forms new habits to achieve the intended goal. According to Tasse (2012) there are seven indicators of adaptive behavior, including communication, social skills, community participation, self-direction, health and safety, education level and work itself.

Second, the Work Environment as an independent variable. Work Environment is a condition or place where someone carries out their duties and obligations and can influence employees in carrying out the tasks that are assigned (Kharisma, 2013). Physical work environment indicators include: Working Atmosphere, Relationships with Colleagues, Availability of Working Facilities.

Third, Employee Training as an independent variable. Training is a process by which people achieve certain abilities to help achieve organizational goals (Sunaryo, 2013). Job training indicators include: Type of Training, Training Objectives, Materials, Methods Used, Participant Qualifications, Trainers Qualifications, Time (Number of Sessions).

Fourth, Employee Productivity as the dependent variable. Productivity is a measure of the quantity and quality of work that has been done, taking into account the cost of resources used to do the work (Mathis & Jackson, 2001). Productivity indicators include: Quality of Work, Quantity, Reliability, Attitude. Data analysis techniques used in this study were instrument test (validity and reliability), classic assumption test (normality test, multicollinearity test, and heterokedasticity test), multiple regression test, statistical t test (partial test), coefficient of determination test. Testing uses IBM 21 SPSS software and Microsoft Office Excel 2013.

RESULTS AND DISCUSSIONS

Validity Test Results

Based on the validity test conducted on all variables totaling 41 question items, all question items are declared valid because they have the value of \( r_{\text{count}} > r_{\text{table}} \) and can be used in this study to retrieve data from respondents.

Reliability Test

SPSS test results show that the Cronbach’s alpha value of all instruments of the research variable > 0.70, it can be concluded that the instruments on the variables of Organizational Culture, Physical Work Environment, Work Training, Work Productivity are reliable.

Results of Descriptive Analysis of Research Variables

This analysis was conducted to determine the general perception of respondents regarding the variables studied. This analysis was carried out using index number analysis techniques to illustrate respondents’ perceptions of the questions raised (Ferdinand, 2014). Based on the research that has been done, the analysis results obtained in the description in Table 1.

Table 1. Descriptive Analysis Results

<table>
<thead>
<tr>
<th>No</th>
<th>Variable</th>
<th>Index</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Employee Productivity</td>
<td>63.25</td>
<td>Medium</td>
</tr>
<tr>
<td>2</td>
<td>Adaptive Behavior</td>
<td>66.25</td>
<td>Medium</td>
</tr>
<tr>
<td>3</td>
<td>Work Environment</td>
<td>77.51</td>
<td>High</td>
</tr>
<tr>
<td>4</td>
<td>Training</td>
<td>66.14</td>
<td>Medium</td>
</tr>
</tbody>
</table>

Based on the results of the descriptive analysis, 3 variables in the medium category and 1 variable in the high category.

Adaptive behavior in this study was measured by seven indicators, including communication, social skills, community participation, self-direction, health and safety, level of education and employment itself. Based on the descriptive statistical analysis that has been done, the indicator of Adaptive Behavior with the highest average is the statement of ability to use creative ideas of 77.38%. This shows that the ability of employees to use creative ideas is good enough. While the statement with the lowest index value is the statement of ability to deal with unexpected situations by 51.64%. This shows that if the employees are still not able to deal with unexpected situations well.

Based on the descriptive statistical analysis that has been done, it can be seen that the total index value of 66.25% and included in the medium category. Based on the description above, it can be interpreted that the Adaptive Behavior of employees at PT. Djarum Brak Sekarjati Jepara is included in the Medium category.

The work environment in this study was measured by 3 indicators including work atmosphere, relationships with co-workers, and availability of work facilities. Based on the
Descriptive statistical analysis that has been done, the Work Environment indicator with the highest average, namely the statement of work atmosphere, gives morale at 85.2%. This shows that the company has a pleasant working atmosphere so that it can improve the morale of the employees. While the statement with the lowest index value is the statement of availability of goods storage by 67.76%. This shows that the provision of storage for employees’ goods by the company has not been maximally carried out. Based on the descriptive statistical analysis that has been done, it can be seen that the total index value of 77.51% and included in the high category. Based on the description above, one can say that the Work Environment of employees at PT. Djarum Brak Sekarjati Jepara is included in the High category.

Job training in this study was measured by 7 indicators including types of training, training objectives, materials, methods used, participant qualifications, trainer qualifications, and time. Based on the descriptive statistical analysis that has been done, the training indicator with the highest average index value is the statement of ability in accordance with the work of 68.9%. This shows that employees have the ability to match their work. While the statement with the lowest index value is the statement of training to ease the work by 63.8%. This shows that the training provided has not helped employees in completing their work to the fullest.

Based on the descriptive statistical analysis that has been done, it can be seen that the total index value of 66.14% and included in the medium category. Based on the description above, one can say that the employee training at PT. Djarum Brak Sekarjati Jepara is included in the Medium category.

Work productivity in this study was measured by 4 indicators including work quality, quantity, reliability, and attitude. Based on the descriptive statistical analysis that has been done, the Productivity indicator with the highest index value is the statement of responsibility for the work of 71.3%. This shows that the responsibilities of employees in working are good enough. While the statement with the lowest index value is the statement of ability to complete the work and suitability of the skills possessed by 59.76%. This shows that employees still do not have the skills that match their jobs.

Based on the descriptive statistical analysis that has been done, it can be seen that the total index value of 63.25% and included in the medium category. Based on the description above, it can be said that the productivity of employees at PT. Djarum Brak Sekarjati Jepara is included in the Medium category.

**Normality Test Results**

The statistical test conducted was Kolmogrov-Smirnov (K-S). The basis for decision making can be done based on probability (Asympt. Significance), if probability > 0.05 then the distribution of the population is normal and if the probability is 0.05 then the population is not normally distributed. Based on normality testing shows that the Kolmogrov-Smirnov value for the independent variable (Adaptive Behavior, Physical Environment and Work Training) on the dependent variable (Karywan Productivity) is sig 0.55 = 55% ≥ 0.05, which means the residual data are normally distributed.

**Multicollinearity Test Results**

A good regression model does not occur correlation between independent variables. To detect the presence or absence of multicollinearity in the regression model, is to look at the value of tolerance and Variance Inflation Factor (VIF). If the tolerance value> 10% and VIF value 10, it can be concluded that there is no multicollinearity between the independent variables in the regression model. Based on testing it can be seen that all independent variables have a Variance Inflation Factor (VIF) value below 10, which is a variable while tolerance values above 0.1, so it can be concluded that there is no multicollinearity between the independent variables and all independent variables are eligible to be used as predictors.

**Heteroscedasticity Test**

Heteroscedasticity test shows the spread of independent variables. Random distribution shows a good regression model. In other words, heteroscedasticity does not occur. Heteroscedasticity test can be done with the Park test. If the significance value is above 5%, it can be concluded that the regression model does not contain heteroscedasticity. Park test results show all independent variables have a significant value ≥ 0.05. So there are no statistically significant independent variables that affect the dependent variable LNRES2. So it can be concluded that the regression model does not contain heteroscedasticity.

**Hypothesis Test Results**

Hypothesis testing in this study uses the analysis of the significance of individual parameters (t test statistics). Based on the results of the hypothesis test, the following output is obtained as shown in Table 2:
Effects of Adaptive Behavior on Employee Productivity

Based on data analysis in this study it can be seen that organizational culture has a positive and significant direct effect on work productivity. This is shown by the results of the calculation of the statistical test $t$, it appears that the $t$-count for the variable of adaptive behavior is 5.204 with a probability of 0.000 by using a significance level of 5%, the probability value is smaller than 0.05. This means that $H_1$ is accepted and $H_0$ is rejected. $H_1$ acceptance which states that the higher the level of adaptive behavior, the higher the productivity of PT. Djarum Brak Sekarjati. This means that the higher the level of adaptive behavior possessed by employees will be able to direct the work productivity of employees and the faster the achievement of work productivity expected by the organization. Vice versa, the worse the level of adaptive behavior possessed by employees, the lower the level of productivity achievement expected by the organization.

The results of this study are supported by research conducted by Pedro Marques, et al. (2015) shows the results that adaptive behavior has a positive and significant effect on employee productivity. Based on the descriptive statistical analysis that has been done, the indicator of Adaptive Behavior with the highest average is a statement of ability to use creative ideas of 77.38%. This shows that the ability of employees to use creative ideas is good enough. While the statement with the lowest index value is the statement of ability to deal with unexpected situations with 51.64%. This shows that if the employees are still not able to deal with unexpected situations well.

Effect of Work Environment on Employee Productivity

Based on data analysis in this study, it can be seen that the work environment has a positive and significant direct effect on work productivity. This is shown by the results of the $t$-test statistic calculation, it appears that the $t$-count for the work environment variable is 2.235 with a probability of 0.021 by using a significance level of 5%, the probability value is smaller than 0.05. This means that $H_2$ is accepted and $H_0$ is rejected. $H_2$ acceptance which states the higher the level of the Work Environment, the higher the productivity of employees of PT. Djarum Brak Sekarjati Jepara. This means that the more comfortable and safe the employee’s workplace can increase the level of productivity of these employees.

Based on the descriptive statistical analysis that has been done, the Work Environment indicator with the highest average is a statement of work atmosphere giving work morale of 85.2%. This shows that the company has a pleasant working atmosphere so that it can improve the morale of the employees. While the statement with the lowest index value is the statement of availability of goods storage by 67.76%. This shows that the provision of storage for employees' goods by the company has not been maximally carried out.

The Effect of Training on Employee Productivity

Based on data analysis in this study, it can be seen that job training has a positive and significant direct effect on work productivity. This is shown by the results of the calculation of the statistical test $t$, it appears that the $t$-count for the variable of job training is 5.488 with a probability of 0.000 using a significance level of 5%, the probability value is smaller than 0.05. This means that $H_3$ is accepted and $H_0$ is rejected.

The results of this study are supported by research conducted by Sabir et al., (2014) at the Electricity Supply Company in Pakistan showing
that job training can have a positive and significant effect on employee work productivity. The same research results were also found by Asfaw (2015) in District Office Administration employees showing that employee work training can affect employee work productivity.

Based on the descriptive statistical analysis that has been done, the Work Environment indicator with the highest average is a statement of work atmosphere giving work morale of 85.2%. This shows that the company has a pleasant working atmosphere so that it can improve the morale of the employees. While the statement with the lowest index value is the statement of availability of goods storage by 67.76%. This shows that the provision of storage for employees' goods by the company has not been maximally carried out.

CONCLUSIONS AND RECOMMENDATIONS

Based on the results of research and discussion above it can be concluded that adaptive behavior affects the productivity of employees of PT. Djarum Brak Sekarjati. Employees who are able to adapt well in the company means to have better productivity compared to employees who are less able to adapt. If employees are less able to adapt to the work environment, company productivity is not optimal. Based on this it can be concluded that the company should maintain the company environment so that employees are able to adapt well in the company so that employee productivity can be optimal. The work environment influences the productivity of the employees of PT. Djarum Brak Sekarjati. A safe and conducive work environment helps employees improve their productivity at work. However, the level of productivity will not be optimal if the working environment is inadequate. Therefore, it is important for companies to maintain a conducive work environment so that employee productivity can be optimized. The training has an effect on the productivity of the employees of PT. Djarum Brak Sekarjati. This means to increase work productivity of employees at PT. Djarum Brak Sekarjati Jepara, namely to reduce conflicts between employees can be done by providing job desks to each employee clearly with strict rules and sanctions to avoid conflicts between employees. The company management should maintain assistance services to bridge the relationship between employees with colleagues and leaders, people as social beings cannot live alone, so employees find problems in completing their work, colleagues and leaders can help voluntarily. The company management should be able to maintain the quality of training used so as not to decrease so that employee productivity can also be maintained properly.

Suggestions for further researchers need to enlarge the research population and broaden the scope of research by using several organizations to obtain higher quality data. so that results can be generalized, it is recommended that conducting research is not limited to PT. Djarum Brak Sekarjati only, but includes other branches of PT. Djarum. socialization needs to be made to each employee for research so that employees have an awareness of the benefits of research.

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