THE EFFECT OF WORK MOTIVATION AND THE WORK ENVIRONMENT ON WORK PRODUCTIVITY IN THE POLYTECHNIC OF LP3I JAKARTA KAMPUS KRAMAT RAYA

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Abstrak
The aim of the study is to find out the effect of motivation through the employee productivity, the effect of work environment to the employee productivity, the effect of motivation and work environment simultaneously through the productivity of Politeknik LP3I Jakarta Kramat Raya Campus employees. This research was conducted from March to September 2018, the research used an explanatory research which was also correlational, the survey method used by the researcher is a questionnaire method. The respondents are Politeknik LP3I Jakarta Kramat Raya Campus employees. The participants of the study are 50 people, based on Arikunto’s formula if the population is less than 100 people, then the total sample is as whole taken. Data analysis was carried out descriptively and used causal hypotheses test. The result of Hypothesis Test showed that motivation and work environment influenced through the work productivity. And also based on the result of SPSS test showed that hypothesis (1) t score = 4.850 is greater than t table of 2.012 and significant of 0.000 is smaller than 0.05, therefore H0 is rejected and H1 is accepted. It means that motivation influences to to the work productivity of the employees. Hypothesis (2) t score = 3.247 is greater than t table of 2.012 and significant of 0.000 is smaller than 0.05, therefore H0 is rejected and H1 is accepted. It means that work environment influences through Employee productivity. Hypothesis (3) F score = 11.186 is greater than F table of 3.20 and significant of 0.000 is smaller than 0.05, therefore H0 is rejected and H1 is accepted. It means that work motivation influences through work productivity of the employees.

Keywords: Motivation, Work Environment, Productivity & Performance.

INTRODUCTION
The company is an organization that has a purpose. One of the goals is looking for profit. This advantage can be achieved if the company's performance is efficient and effective. This can be illustrated by the increase in productivity. There are several factors that support an organization in achieving its goals, one of which is the labor factor. The labor factor has a very important role, namely as the executor of production. Of the resources available in the organization, labor plays a central role and the most determining. In the sense that although it is recognized that the non-human assets are good, it is still the workforce that is the most determining factor. Because labor is the only resource that has reason, ability, feeling, will, knowledge, work and talent.

Productivity is basically a universal concept that applies to all systems, because every activity requires productivity in its implementation. According to Mathis (in Butar, 2015) defines work productivity as a measurement and quantity of work by considering all costs and things related and needed for the job.

An important factor that can affect productivity is the work environment. According to Sunyoto (2015: 38) the work environment is a very important component when employees carry out work activities. By paying attention to a good work environment or creating working conditions that are able to...
provide motivation to work, it will have an impact on employee productivity at work. The work environment is said to be good if the work environment can support the work of employees. Employees feel safe, comfortable, there are no distractions and feel at home at work, so employees can concentrate on work and can use their time as effectively as possible for work. The work environment is said to be bad if on the contrary, employees feel uncomfortable working, insecure, uncomfortable and feel disturbed, so that they cannot work properly and cannot concentrate on their work. Some of the factors of the work environment include: room coloring, lighting, cleanliness and air exchange.

Another factor that is no less important for increasing work productivity is motivation. Motivation according to Siagian (in Sutrisno, 2016) suggests that work motivation is a psychological state that encourages, activates or moves that directs and channels one's behavior, attitudes and actions to achieve goals. The process of arising one's motivation is a combination of the concepts of needs, encouragement, goals and rewards.

From these data the results of the survey show that there is employee dissatisfaction in doing work and this gives an idea that the employee's performance has not fully shown optimal performance. Because the work environment and motivation cannot be fulfilled, so that the achievement of employee performance productivity can be fulfilled and improved. Based on the aforementioned symptoms which are considered as facts, an in-depth study of work motivation variables, work environment variables and employee work productivity variables is conducted.

LITERATURE REVIEW
2.1. Work productivity

According to Sinungan (2014: 17) suggests that productivity is a universal concept that aims to provide more goods and services that will be used by many humans, by using fewer and fewer real resources. Meanwhile, according to Sedarmayanti (2009) in Adiwinata and Sutanto (2014) says that, Productivity is an attitude of mind which has the spirit to make improvements.

Improvement. Thus, productivity contains a mental attitude that always holds the view that today's life must be better than yesterday and tomorrow is better than today (Hasibuan, 2009: 125)

Mathis and Jackson (2006: 69) define productivity as a measurement of the quantity and quality of workers completed, taking into account the cost of the resources used. According to Sutrisno (2009: 99) productivity is generally defined as the relationship between output (goods or services) and input (labor, materials, money).

Some other definitions of productivity according to some experts: Tohardi, quoted by Sutrisno (2011: 100), revealed that work productivity is a mental attitude that always looks for improvements to what already exists, a belief that someone can do a better job today than yesterday, and tomorrow is better than today.

Tohardi's opinion is also supported by Ravianto, quoted by Sutrisno (2011: 100), which states that productivity basically includes a mental attitude that always has the view that life today must be better than today. This attitude encourages someone not to feel satisfied quickly, but must develop themselves and increase work ability by always looking for improvements and enhancements.

2.2. Work motivation

Pamela & Oloko (2015) Motivation is the key to a successful organization to maintain work continuity in the organization in a way and a strong help to survive. Motivation is giving them proper guidance or direction, resources and rewards so that they are inspired and interested in working the way you want them to. Chukwuma & Obiefuna (2014) Motivation is the process of generating behavior, maintaining progress in behavior, and channeling specific action behaviors. Thus, motives (needs, desires) encourage employees
to act. Motivasia is a process that begins with a need in humans that creates emptiness in a person (Chukwuma & Obiefun, 2014). Siagian (in Sutrisno, 2016) argues that work motivation is a psychological state that encourages, activates or moves that directs and channels one's behavior, attitudes and actions to achieve goals.

Another opinion was also put forward by Duica (2008) in Robescu (2016) “Motivation is defined as all internal and external driving processes that makes the individual to perform an activity, what determines the limits and forms activity and which give it its activities oriented towards achieving certain goals.”

Motivation is one of the most important factors influencing human behavior and performance. Motivation theory has been discussed and conceptualized by various researchers. The level of motivation of an individual or team is given in their task or job which can affect all aspects of organizational performance. In recent research, motivation is defined by Saraswathi (2011) as a willingness to exert a high level of effort, towards organizational goals, which is conditioned by the ability of efforts to fulfill some individual needs. (Wan & Tan, 2013).

Based on several opinions expressed by experts, it can be concluded that work motivation is a process in which the need encourages a person to carry out a series of activities that lead to the achievement of certain goals and organizational goals and to meet several needs. The strength and weakness of the work motivation of a worker also determines the size of the achievement.

2.3. Work environment

The work environment is a very important component part for employees in carrying out work activities. Employees are maximally required to carry out their work. In this case, companies must be able to provide adequate facilities so that employees can provide the desired performance, as stated in the international journal Oil Exchange (2012) that "The environment that people are required to work in can have a significant impact on their ability to undertake the tasks that they have been asked to do". According to Nitisermito (2010) in Nugroho (2016), defines "The work environment is everything that is around the workers that can influence him in carrying out his assigned duties". Meanwhile, according to (Sedarmayanti, 2009) in Prasetyo et al (2015), explains "The work environment is the entire tooling and materials faced, the environment around which a person works, his work methods, and his work arrangements both individually and as a group".

According to (Suwanto and Priansa, 2011) in general the work environment consists of a physical work environment and a psychological work environment. According to Sedarmayanti (2011) in Quinterita Stevani Aruan, Mahendra Fakhri (2015) The work environment is divided into 2 (two), namely: 1) Physical Work Environment is all physical conditions that exist around the workplace that can affect employees either directly or indirectly. 2) Non-Physical Work Environment is all situations that occur in relation to work relationships, both relationships with superiors and relationships with colleagues, or relationships with subordinates.

From the description above, it can be concluded that the work environment is everything that is around employees to carry out their responsibilities at work, both physical and non-physical, which can affect their optimal performance and be able to complete the assigned tasks effectively.

RESEARCH METHODS

In this study using explanatory research (explanatory research) according to Singarimbun (2006: 5). Explanatory research is to explain the causal relationship between variables through hypothesis testing. This study uses an explanatory research type because the researcher explains the causal relationship that occurs between variables.

In its implementation, explanatory researchers use survey research methods, where
information is collected from respondents using a questionnaire. According to Singarimbun (2006: 3) survey research is research that takes a sample from one population and uses a questionnaire as the main data collection tool. This approach uses a quantitative approach is research which in the implementation process uses a strict research design in the form of numbers or with statistical formulas or other means of quantification to measure the research variables.

RESULTS AND DISCUSSION
Descriptive Statistical Analysis Results.

The method of data analysis using descriptive statistical analysis is intended to determine the frequency distribution of respondents' answers from the questionnaire results, namely by collecting data from the results of respondents' answers, then tabulated in tables and descriptive discussion.

Descriptive Data

This research was conducted through a survey method, namely research conducted by taking samples from the population and using a questionnaire as a means of collecting data from the results of distributing 50 questionnaires which returned 50 questionnaires with response rates (response rates) of respondents' answers (Polytechnic LP3I Jakarta Kampus Kramat Raya employees). Most of the research respondents worked more than 3 years, namely 78%. Meanwhile, 12% of employees who work between 1 - 3 years. The rest are employees who work under 1 year at 5%. The education level of the most respondents in this study was S1 / S2 at 56%. The S1 / S2 education level is employees who hold positions as managers and lecturers, while the Diploma (D3) education level is 30%. Diploma (D3) is an employee who holds a position as an educational staff or staff. And the last is high school at 14%. Most of the sex of respondents in this study were male, namely 70%. Meanwhile, 30% are women. The positions of respondents in this study were mostly staff, namely 70%. Meanwhile, 8% of respondents in managerial positions and 22% of lecturers. The work status of the respondents in this study was mostly permanent employees, namely 82%. Meanwhile, respondents whose work status were contract employees was 18%.

Descriptive Variable

Descriptive Variable Work Motivation

Measurement of the motivation variable in this study uses six dimensions with 31 items. Based on the results of the validity test of the questionnaire items used for data collection on the motivation variables presented in the table above, it shows that there are four invalid items, namely items X1.1, X1.7, X1.16 X1.17. Thus these items are not included in the research data collection, while the rest is used to collect research data for measuring motivation variables.

Descriptive Variable Work Environment

Measurement of work environment variables in this study uses two dimensions, namely the physical work environment and the non-physical work environment with a total of 19 items as indicators. Based on the results of the validity test of the questionnaire items used for data collection on the work environment variables presented in the table above, it shows that all items are declared valid. Thus all items are used to collect research data for measuring work environment variables.

Descriptive Variable of Work Productivity

Measurement of work productivity variables in this study is measured by 11 items as indicators. Based on the results of the validity test of the questionnaire items used to collect data on the work productivity variables presented in the table above, it shows that all items are declared valid. Thus all items are used to collect research data for measuring work productivity variables.

Instrument Test

Based on the results of research data processing with respondents 50 employees, the statistical reliability value (Cronbach alpha) is 0.920 for the motivation variable, 0.932 for the work environment variable and 0.849 for the employee work productivity variable.
cronbach alpha value of the three variables is above 0.6. So that the research data carried out are reliable and meet the requirements of good data quality.

**Classic assumption test**

**Normality test**

Hypothesis testing in this study uses non-parametric statistics because the data to be tested is in ordinal form. Therefore, Santoso (2001) states that "to find out whether the data is normally distributed or close to normal and or biased is considered normal, if it is biased then the Normality Plot test will be carried out, which is a test using the PP-Plot Graph". Testing the normality of data using the Normality Plot Test on the basis of decision making looking at the PP-Plot graph, if you see the distribution of data clustered around the test line that leads to the right of the top and no data is located far from the data distribution. Thus the data can be said to be normal.

**Multicollinearity Test**

Multicollinearity test aims to test whether the regression model found a correlation between independent variables. If the independent variables are correlated, these variables are not orthogonal. The orthogonal variable is the independent variable whose correlation value among the independent variables is zero. A good regression model should not have a correlation between the independent variables.

The multicollinearity value can also be seen from the Tolerance value and the opposite of Variance Inflation Factor (VIF). These two measures indicate which independent variable is explained by the other independent variables. In simple terms, each independent variable becomes the dependent variable and regresses to other independent variables. Tolerance measures the variability of the selected independent variable which cannot be explained by other independent variables. So a low tolerance value is the same as a high VIF value (because VIF = 1 / tolerance) and indicates high collinearity. The cutoff value that is commonly used is a tolerance value of 0.10 or equal to a VIF value above 10. Each analyst must determine the level of collinearity that can be tolerated.

**Heteroscedasticity Assumption Test**

The heteroscedastical test aims to test whether in the regression model there is a fixed variance of the residuals from one observation to another, so it is called homoscedasticity. A good regression model is homoscedasticity because the cross section data contains various sizes (small, medium and large). (Ghozali, 2001: 69).

The way to detect the presence or absence of heteroscedasticity in this study is to use the graphic method, namely the Scatterplot chart. If the Scatterplot graph shows the points spread randomly and spread, both above and below the number 0 on the Y axis, this indicates that there is no heteroscedasticity in the regression model.

**Hypothesis testing**

The t statistic test basically shows how far the influence of one independent variable individually in explaining the variation in the dependent variable. The test criteria with a significance level (α) = 0.05 is determined if t count> t table, then H0 is rejected and H1 is accepted. Then, if t count <t table, then H0 is accepted and H1 is rejected. So based on the research results, it is known that the statistical results from the partial test coefficient table for hypothesis 1 are work motivation on employee work productivity, as described in the partial test coefficient table of work motivation on employee work productivity.

**Table 1 Coefficient of Partial Test of Work Motivation on Employee Productivity**

<table>
<thead>
<tr>
<th>Coefficients</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td>t</td>
</tr>
<tr>
<td>1 (Constant)</td>
<td>28.658</td>
<td>4.218</td>
<td>.6794</td>
<td>.000</td>
</tr>
<tr>
<td>Work_Environment_X2</td>
<td>.100</td>
<td>.080</td>
<td>.054</td>
<td>.358</td>
</tr>
<tr>
<td>Motivation_X1</td>
<td>.100</td>
<td>.080</td>
<td>.242</td>
<td>3.247</td>
</tr>
</tbody>
</table>

The table above shows that the t count is 4.850> t table is 2.012 and the α significance...
level is 0.000 < 0.05, thus the hypothesis H0 is rejected and H1 is accepted. This means that there is a significant influence between motivation (X1) on work productivity (Y) of the LP3I Jakarta Polytechnic employees.

Hypothesis 2 also uses testing criteria with a significance level (α) = 0.05 which is determined if t count > t table, then H0 is rejected and H1 is accepted. H0: So based on the results of the study, it is known that the statistical results of the partial test coefficient of the work environment on employee work productivity are as described in the table of the partial test coefficient of work environment on employee work productivity.

**Table 2 Coefficient of Work Environment Partial Test of Employee Productivity**

<table>
<thead>
<tr>
<th>Coefficients</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
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<tr>
<td>Work_Environment_X2</td>
<td>100</td>
<td>.080</td>
</tr>
<tr>
<td>Motivation_X1</td>
<td>100</td>
<td>.054</td>
</tr>
</tbody>
</table>

a. Dependent Variable: Work_Productivity Y  
Source: SPSS Data Processed Results, 2018

The table above shows that t count is 3.247 > t table is 2.012 and the significance level of α is 0.00 > 0.05, thus the hypothesis H0 is rejected and H1 is accepted. This means that there is a significant influence between the work environment (X2) on the work productivity (Y) of the employees of the LP3I Polytechnic Jakarta Kramat Raya Campus.

Hypothesis 3 will use the F test analysis because it is simultaneous in that hypothesis testing with F statistics can be done by comparing the calculated F value with the F value according to the table. If the calculated F value is greater than the F table value, then H0 is rejected and accepts H1 and vice versa. In Hypothesis 3 where H0 and H1 are: H0: work motivation and work environment simultaneously do not affect work productivity while H1: work motivation and work environment simultaneously affect employee work productivity.

So based on the results of the study, it is known that the statistical results of the ANOVA table simultaneous test of work motivation and work environment on employee work productivity, as explained in the ANOVA table, service quality and satisfaction simultaneously on employee performance.

**Table 3 Anova Work Motivation and Work Environment Simultaneously Against Employee Productivity**

<table>
<thead>
<tr>
<th>ANOVA*</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Regression</td>
<td>440.444</td>
<td>2</td>
<td>220.222</td>
<td>11.186</td>
<td>.000*</td>
</tr>
<tr>
<td>Residual</td>
<td>925.336</td>
<td>47</td>
<td>19.688</td>
<td>19.688</td>
<td>.000</td>
</tr>
<tr>
<td>Total</td>
<td>1365.780</td>
<td>49</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Dependent Variable: Productivity_Kerja_Y  
b. Predictors: (Constant), Motivation_X1, Environment_Work_X2  
Source: SPSS Data Processed Results, 2018

The table above shows that the F count is 11.186 > F table is 3.20 and the significance level of α is 0.00 < 0.05, thus the hypothesis H0 is rejected and H1 is accepted. This means that the independent variables as a whole have a significant effect on the dependent variable or there is a significant influence between motivation (X1) and work environment (X2) on work productivity (Y) of the employees of the LP3I Polytechnic Jakarta Campus Kramat Raya simultaneously.

**The Influence of Work Motivation on Employee Work Productivity at the LP3I Polytechnic Jakarta Kramat Raya Campus.**

From the results of the partial analysis, the motivation variable has a significant effect on employee work productivity of 0.548 (54.8%), meaning that there is a significant effect of work motivation on work productivity, meaning that if work motivation increases, productivity will increase. These results support the research of Wahyu Aji Rachmanto (2010) that motivation has a significant effect on work productivity.
The Influence of Work Environment on Employee Work Productivity at the LP3I Polytechnic Jakarta Kramat Raya Campus.

From the results of the partial analysis, work environment variables have an effect on employee work productivity of 0.523 (52.3%), meaning that there is a significant effect of work environment on productivity. These results support the previous research of Rina Damayanti (2012). The Effect of Work Environment on Employee Productivity at the Timbul Jaya Ngunut Diesel Exhaust Company, Tulung Agung, there is a partially significant influence between work environment variables on work productivity.

Simultaneous Influence of Work Motivation and Work Environment on Employee Work Productivity at the LP3I Polytechnic Jakarta Kramat Raya Campus.

From the results of the regression output, the regression equation of motivation and work environment on productivity is obtained 0.568 (56.8%), this means that motivation and work environment simultaneously influence productivity. These results support the previous research of Gilang Gumilang, Saryadi and Wahyu Hidayat (2012) The Effect of Motivation and Work Environment on Productivity of PT.Meubelindo Semarang Production Employees.

In this study, it shows a significant result between motivation and work environment together on the productivity obtained from the results of multiple regression tests. Where the F table number is 3.20 and with a significance of 0.00 <0.05 (5%) F count is 11,186> F table is 3.20 so that Ho is rejected and H1 is accepted. This means that simultaneously, motivation and work environment affect productivity.

CONCLUSIONS AND SUGGESTIONS

Conclusion
Based on the results of research and discussion regarding the influence of motivation and work environment on the work productivity of the LP3I Jakarta Polytechnic employees, the following conclusions can be drawn:

1. Work motivation partially has a significant effect on employee work productivity by 0.548 (54.8%). This shows that independently changes in work motivation have an effect on changes in work productivity of employees of the LP3I Polytechnic Jakarta Kramat Raya Campus. An increase or decrease in work motivation will lead to an increase and decrease in employee productivity.

2. Work environment conditions partially have a significant effect on employee work productivity by 0.523 (52.3%). This shows that independently changes in work environment conditions have an effect on changes in work productivity of the employees of the LP3I Polytechnic Jakarta Kramat Raya Campus. Increasing or decreasing working environment conditions will cause the employee's work productivity to rise and fall.

3. Motivation and work environment simultaneously have a significant and positive effect on employee work productivity 0.568 (56.8%). This shows that jointly changes in employee motivation and work environment conditions will change the work productivity of employees in the LP3I Jakarta Campus Kramat Raya Politeknik, where if there is an increase in motivation and working conditions, productivity will also increase and vice versa.

Suggestion
Based on the findings, several important suggestions are presented which can be stated as follows:

1. This research is limited to the LP3I Polytechnic Jakarta Kramat Raya Campus, so it cannot be generalized. To generalize the overall condition of the existing Polytechnic LP3I Jakarta, it is necessary to conduct a broader study with sampling that adjusts the number of existing populations.

2. The results show that the contribution of motivation and work environment in
influencing work productivity is still low, so it is necessary to conduct research by expanding the independent variables which are indicated as factors that can affect employee work productivity.  

3. The use of multiple regression in the analytical method used may be a limitation of the results of this study because of its simple nature which does not take into account some of the linkages between indicators, so it is necessary to further investigate what if it is done using the SEM (Structure Equal Model) method.

REFERENCES
