

# The Determinant Factors of Work Productivity at Port Operating Company: Work Conflict, Work Stress and Leadership

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## ABSTRACT

**Purpose:** The purpose of this study was to determine the effect of work conflict, work stress and leadership on work productivity at the port operating company.

**Design / methodology / approach:** The method in this study uses a quantitative approach with multiple linear regression analysis

**Findings:** The study was conducted at the port operating company in Surabaya

**Research limitations / implications:** Limits in the study use three independent variables and one dependent variable. The independent variables are work conflict, job stress and leadership. The dependent variable is the work productivity variable

**Practical Implications:** The population is 164 employees and the study sample is 62 employees determined by the Slovin formula and random sampling.

**Originality / Value:** This research was conducted at the port operating company Surabaya

**Paper type:** Research paper

**Keyword:** Job Stress, Leadership, Work Conflict, Work Productivity

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## I. INTRODUCTION

What is very necessary to ensure the achievement of the company's long-term goals is work productivity. According to Rachman, (2016) Productivity is an interdisciplinary approach to determining effective goals, making plans, using productivity methods to use resources efficiently and still providing high quality.

Port operating company is one of the most important gateways in the trade industry which has an important role in advancing the trade sector, especially in eastern Indonesia. Port operating company has several subsidiary and spit-off company of the company, one of its subsidiaries is PT. X. PT. X is a subsidiary of port operating company which is engaged in labor development or outsourcing. The existence of PT. X cannot be separated from the commitment of the management of port operating company in improving labor welfare for professional workforce management. Until now, the outsourcing worker of PT. X who was placed in the work area of port operating company for 5,680 people who must continue to work on the work productivity factor of employees. The object of this research is focused on 164 employees of PT X outsourcing in the port operating company area with a sample of 62 people. This research was conducted to increase the productivity of outsourced employees who have a fluctuating employee information level indicator. One of the factors that affect employee productivity is work conflict, job stress and leadership.

This research was conducted to increase the productivity of outsourcing employees who have a fluctuating level of employee information indicators. Some factors considered affecting employee productivity are work conflict, job stress and leadership. The purpose of this study was to determine the effect of work conflict, work stress and leadership on work productivity at the port operating company.

## II. LITERATURE

### A. Work productivity

According to Sinungan, (2014), productivity is a universal concept that aims to provide more goods and services that are used by many humans, using fewer real sources, while according to Hasibuan, (2009) Productivity contains a mental attitude that is always holds the view that today's life should be better than yesterday and tomorrow is better than this result. According to Rachman, (2016) Productivity is an interdisciplinary approach to determining effective goals, making plans, application of the use of productivity ways to use resources efficiently and maintaining high quality. Meanwhile, according to Edy, (2011), it is revealed that work productivity is a mental attitude that is always looking for improvements to what already exists, a belief that someone can do a better job today, yesterday, and tomorrow is better than today.

According to Sutrisno, (2010), the indicators of work productivity are ability, increase the results achieved, morale, self development, quality and efficiency.

### B. Work Conflict

Rivai, (2014) provides his opinion on work conflicts, according to him, work conflict is a mismatch between two or more members or groups (in an organization / company) who have to share limited resources or work activities and / or because of facts that they have different status, goals, values or perceptions.

According to Mangkunegara, (2014) work conflict is a "conflict that occurs between what a person expects from himself, others, the organization and the reality of what is expected". A different thing was put forward by Setiyana, (2013) according to him, work conflict is a "very difficult construction. To define stress in work that occurs to a person, because some workers bring the level of work to a tendency to stress". Job stress is a combination of sources of work stress, individual characteristics, and causes of stress outside the organization. Job stress is a stressful condition that causes physical and psychological imbalances that affect emotions, thought processes and employee conditions.

Conflict indicators according to Rivai, (2014) includes conflict within a person, conflict between individuals, conflict between group members, and conflict between groups

- a. From the results of previous research from Agusta, (2013), it is said that work conflict has a significant negative effect on employee work productivity. According to Mangkunegara, (2014) work conflict is a conflict that occurs between what a person expects of himself, other people, the organization and the reality of what is expected. So the first hypothesis in this research is :

H1 : work conflict has a negative effect on work productivity

### C. Work Stress

Stress is a feeling of pressure experienced by employees in facing work, while Rivai, (2014) explains that job stress is an imbalance of desire and ability to fulfill it, which causes important consequences for him. Handoko, (2015) states that "Stress is a condition of tension that affects one's emotions, thought processes and physical condition". Stress is our perception of a situation or condition in our own environment.

Work Stress Indicators can be measured from various dimensions, but in this study work stress will be measured from 3 dimensions of Siagian, (2014) includes (a) workload, (b) role conflict, (c) role ambiguity.

Based on the results of previous research from Kintan Benvia Cherny, (2017), the result of this research explained that work stress has a negative effect on work productivity. This is in accordance with Rivai, (2014) opinion, who stated that work stress is an imbalance of desires and the ability to fulfill it, causing important consequences for him. So the second hypothesis in this research is :

H2 : job stress has a negative effect on work productivity

### D. Leadership

Kartini, (2014) says that leadership is a talent that is acquired as a special ability from birth, while according to Yukl, (2015) says that process leadership influences others to understand and report what is needed in carrying out and carrying out the task, as well as carrying out tasks. that, as well as carrying out that task a process to facilitate individual and collective efforts to achieve common goals.

According to M. dan Rivai, (2009) leadership includes an influencing process in determining organizational goals, motivating follower behavior to achieve goals, influencing groups and their culture. Kartini, (2014) states that "Leadership is a talent acquired by a person as a special ability from birth".

Rivai, (2014) puts forward leadership divided by five indicators, as follows (a) the ability to foster good cooperation and relationships, (b) abilities that have rights, (c) participatory leadership, (d) ability to delegate tasks or time, (e) ability to delegate tasks or be authorized.

Previous research by Agusta, (2013) stated that leadership has a positive effect on employee productivity. Yukl, (2015) says that leadership is a process of influencing others to understand and agree on what is needed in

carrying out tasks and how the process of carrying out that task, and is a process to facilitate individual efforts and common or collective interests to achieve common goals efficiently and effectively. So the third hypothesis can be proposed as follows:

H3 : leadership has a positive effect on work productivity.

From relationship and hypothesis stated above then he research model can be proposed as follows:

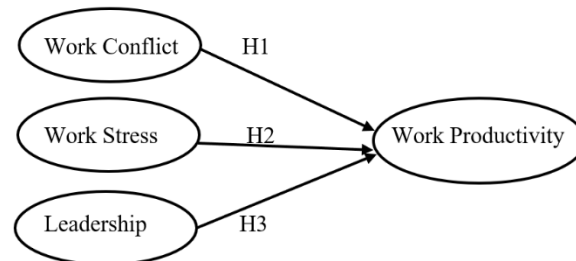


Figure 1. Conceptual Framework

### III. METHODOLOGY

This type of research approach is a quantitative type. The data analysis technique uses multiple linear regression with data collection using a questionnaire. The population of this study were all outsourcing employees from X who served at the port operating company, equipped with 164 employees. Using the Slovin formula, the number of samples taken in the study was 62 outsourcing employees of PT X who served at the port operating company. The operational definition in this research is as follows:

Table 1. Operational Definition of Variables

Independent Variable	Work Conflict (X1)	Indicators (Rivai, 2014) Conflict within a person; Conflicts between individuals; Conflicts between group members; Conflict between groups.
	Work Stress (X2)	Indicators: Siagian (2014) Work load; Role conflict; Role ambiguity.
	Leadership (X3)	Indicators (Rivai, 2014) Ability to foster good cooperation and relations; Capabilities that have rights; Participative leadership; Ability to delegate tasks or time; Ability to delegate tasks or be authorized.
Dependent Variable	Work Productivity (Y)	Indicators: Sutrisno (2010) Capabilities; Increasing the results achieved; Work spirit; Self development; Quality; Efficiency.

Source: Processed Data (2021)

## IV. DATA COLLECTION

The following shows the frequency distribution of respondents based on age and gender

Table 2. Characteristics of Respondents by Age

No.	Age	Quantity	Percentage (%)
1	21-30 y.o	19	30.6%
2	31-40 y.o	25	40.3%
3	41-50 y.o	13	30%
4	>50 y.o	5	8.1%
Total		62	100%

Source: Processed Data (2021)

Based on table 2, it can be seen that respondents from the age of 31 - 40 years have the highest number, namely 25 respondents with a percentage of 40.3%.

Table 3. Respondent Category Based on Gender

No.	Gender	Quantity	Percentage (%)
1	Male	23	37.1%
2	Female	39	62.9%
Total		62	100%

Source: Processed Data (2021)

Based on table 3, the number of respondents with female gender has the largest number of 39 respondents with a proportion of 62.9%.

## V. RESULTS AND DISCUSSION

In this study, questionnaires were distributed to 62 respondents of outsourcing employees from PT X, in order to obtain primary data. The data being tested need to be tested with several tests. The first test is a questionnaire test which includes validity and reliability tests. The second test is the classic assumption test which consists of normality test, multicollinearity test, and heteroscedasticity test. The third test is multiple linear regression analysis and the fourth test is the hypothetical test. The test results are as follows.

### A. Validity test

Table 4. Validity Test Result of Work Conflict ( $X_1$ )

Statement	r-count	r-table	Remarks
X1.1	0.531	0.2500	Valid
X1.2	0.503	0.2500	Valid
X1.3	0.640	0.2500	Valid
X1.4	0.706	0.2500	Valid
X1.5	0.668	0.2500	Valid
X1.6	0.593	0.2500	Valid
X1.7	0.663	0.2500	Valid
X1.8	0.588	0.2500	Valid

Source: Primary Processed Data with SPSS (2021)

*Tabel 5. Validity Test Result of Job Stress (X<sub>2</sub>)*

Statement	r-count	r-table	Remarks
X2.1	0.621	0.2500	Valid
X2.2	0.577	0.2500	Valid
X2.3	0.734	0.2500	Valid
X2.4	0.753	0.2500	Valid
X2.5	0.690	0.2500	Valid
X2.6	0.734	0.2500	Valid

*Source: Primary Processed Data with SPSS (2021)*

*Table 6. Validity Test Result of Leadership (X<sub>3</sub>)*

Statement	r-count	r-table	Remarks
X <sub>3</sub> .1	0.654	0.2500	Valid
X <sub>3</sub> .2	0.646	0.2500	Valid
X <sub>3</sub> .3	0.552	0.2500	Valid
X <sub>3</sub> .4	0.654	0.2500	Valid
X <sub>3</sub> .5	0.643	0.2500	Valid
X <sub>3</sub> .6	0.517	0.2500	Valid
X <sub>3</sub> .7	0.552	0.2500	Valid
X <sub>3</sub> .8	0.654	0.2500	Valid
X <sub>3</sub> .9	0.634	0.2500	Valid
X <sub>3</sub> .10	0.574	0.2500	Valid

*Source: Primary Processed Data with SPSS (2021)*

*Table 7. Validity Test Result of Work Productivity (Y)*

Statement	r-count	r-table	Remarks
Y.1	0.441	0.2500	Valid
Y.2	0.536	0.2500	Valid
Y.3	0.484	0.2500	Valid
Y.4	0.654	0.2500	Valid
Y.5	0.629	0.2500	Valid
Y.6	0.732	0.2500	Valid
Y.7	0.713	0.2500	Valid
Y.8	0.705	0.2500	Valid
Y.9	0.698	0.2500	Valid
Y.10	0.730	0.2500	Valid
Y.11	0.705	0.2500	Valid
Y.12	0.252	0.2500	Valid

*Source: Primary Processed Data with SPSS (2021)*

Based on tables 4 to 7, it can be seen that variable conflict, job stress, leadership and productivity indicate that all items are declared valid and can be used as research instruments.

## B. Reliability Test

*Table 8. Reliability Test Results*

Variables	Cronbach's Alpha	Criteria	Remarks
Work Conflict (X1)	0.761	0.6	Reliable
Work Stress (X2)	0.774	0.6	Reliable
Leadership (X3)	0.809	0.6	Reliable
Work Productivity (Y)	0.843	0.6	Reliable

*Source: Primary Processed Data with SPSS (2021)*

Based on table 8, it can be seen that all variables have reliable results, which means that the questionnaire can be used in research.

## C. Classic assumption test

### Normality Test

Normal P-P Plot of Regression Standardized Residual

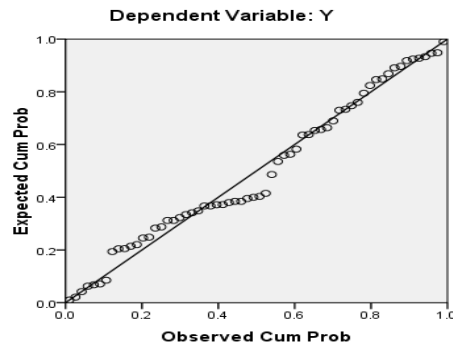


Figure 2. Normality Test Results

Source: Primary Processed Data with SPSS (2021)

Based on figure 2 above, it can show that the regression model is normally distributed.

### Heteroscedasticity Test

Scatterplot

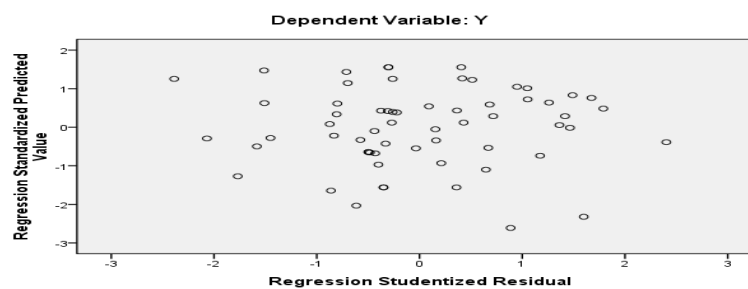


Figure 3. Heteroscedasticity Test Results

Source: Primary Processed Data with SPSS (2021)

In figure 3 it can be seen that the scatterplot does not form a certain pattern and the point spreads above, so there is no heteroscedasticity.

### Multicollinearity Test

Table 9. Multicollinearity Test Results

Variable	Collinearity Statistics		Remarks
	Tolerance	VIF	
X <sub>1</sub>	0,166	6,023	Multicollinearity does not occur
X <sub>2</sub>	0,338	2,959	Multicollinearity does not occur
X <sub>2</sub>	0,168	5,958	Multicollinearity does not occur

Source: Primary Processed Data with SPSS (2021)

Based on table 9, the tolerance value for all variables is more than 0.1 and the variance inflation factor (VIF) value is less than 10. So it can be concluded that the research data does not experience multicollinearity between independent variables.

### Multiple Linear Regression Analysis

Regression analysis is used to measure the extent of the relationship between the connected variables. Based on the regression analysis using SPSS, the following results were obtained:

*Table 10. Results of Linear Regression Analysis*

	B Value	T Count	Significance	Conclusion
Constanta	4,762	1,769	0,082	-
X1	-0,426	2,428	0,018	Significant
X2	-0,764	5,291	0,000	Significant
X3	0,294	2,055	0,044	Significant
F Count		118,715	0,000	Significant
R				0,927
Rsquare				0,860

*Source: Primary Processed Data with SPSS (2021)*

Based on table 10, it can be seen that work conflict (X1), job stress (X2), and leadership (X3) together (simultaneously) have a significant effect on the dependent variable, namely work productivity (Y). This is evidenced by the significant value of 0.000 smaller than alpha 0.05 with the Fcount value of 118.715 greater than the Fcount of 2.76.

Based on table 10 it is also known that the work conflict variable (X1) has an effect on work productivity (Y). This can be proven by the significance value of 0.018 which is smaller than 0.05 and with a tcount value of 2.428 which is greater than the label sebesar 2.00172. So it can show that the work conflict variable has a significant effect on work productivity variables partially. The significance value for the work stress variable (X2) is 0.000 smaller than 0.05 and the tcount value of 5.291 is greater than the t table 2.00172. So it can be seen that the work stress variable (X2) has a significant effect on work variables partially. The significance value for the leadership variable (X3) is 0.044 less than 0.05 and the tcount value of 2.055 is greater than the t table of 2.00172. So it can prove that the leadership variable (X3) partially affects the work productivity variable.

In table 10, the results show an R of 0.927 indicating that the relationship between work productivity and work conflict (X1), work stress (X2), and leadership (X3) variables is strong, because the R value is more than 0.5, it can be said to be strong correlation. From the calculation of the multiple coefficient of determination with the help of SPSS, it is known that the coefficient of multiple determination adjusted for R Square is 0.853 or 85.3%. This value shows the work productivity variable for work conflict (X1), work stress (X2), and leadership (X3) variables, the remaining 14.7% is related to other variables which are not examined in this study.

## VI. CONCLUSION

Based on the results of research with multiple linear regression, the researchers can conclude as follows: Work conflict variable (X1) has a negative affects on work productivity (Y), This means that if work conflict increases, work productivity will decrease. Job stress variable (X2) has a negative effect on work productivity (Y), This means that if job stress increases, work productivity will decrease The leadership variable (X3) has a positive effect on work productivity (Y), This means that if leadership increases, work productivity will decrease.

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