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## **The Effect Of Work Motivation Factors and Work Satisfaction on Employee Productivity**

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### **Abstract:**

*This research is aimed at analyzing the effect of work motivation on work satisfaction and productivity of employees. This research also examined the effect of work satisfaction on the productivity of employees, as well as the indirect effect of work motivation on the productivity within the mediation of work satisfaction. The object of the research was all employees working in PLN of NTB. This research is quantitative and explanatory research. The data were collected through questionnaires distributed to 88 respondents. The data then were analyzed with Partial Least Square (PLS). The findings of this research showed that work motivation factor had positive and significant effect on the work satisfaction. Work motivation factor had positive and significant effect on the productivity of the employees. This research also proved that there is indirect positive and significant effect of work motivation on the productivity of the employees through the mediation of work satisfaction. It is suggested that related institutions pay attention on the variables of work motivation and work satisfaction, so that in the future, the evaluation of the productivity of the employees could be including the three variables as the special criteria to aim the target specified by the institution.*

**Keywords:** work motivation factor, work satisfaction, employees productivity

### **1. Introduction**

Human resources are a very important factor in an organization of both large and small organizations. In large organizations, human resources (HR) is seen as a very decisive element in the business development process, so the role of human resources becomes increasingly important. Human resources that exist in various fields, especially in organizational life, has human factor as the main problem in every activity in it. An organization according to Robbins (2006) is a consciously coordinated social unit with a reactive boundary that can be identified and work continuously to achieve its goals.

High productivity can be achieved by increasing job satisfaction from each employee. If employees perceive that what the company has achieved in accordance with what they receive (salary or wages) is fair and reasonable and associated with superior work performance. In other words that work productivity shows the level of job satisfaction of an employee, because the company is able to know the aspects of the work of the expected success rate. Sedarmayanti (2009) states that, "Productivity is an attitude of mind that has a passion for continuous improvement." Thus it can be said that productivity is related to the efficient use of inputs to produce goods or services as a concept of fulfilling human needs or often referred to as a mental attitude that always has the view that the quality of life today must be better than yesterday and tomorrow must be better than today.

According to Sedarmayanti (2009) the characteristic of a productive individual is divided into four, namely a sense of responsibility, a sense of love for work, cooperation, and desire to improve themselves and develop their potential. From the description above, productivity is a measure of what is obtained from what is needed. Employees play a major role in the process of increasing productivity, because the means of production and technology are essentially the work of human beings. Employee productivity contains a sense of comparison of results achieved by employees with a certain period

Motivation factors are important in encouraging every employee to work productively, thus impacting employee's productivity. Motivation that becomes the main basis for an entering an organization is in the framework of the business person concerned satisfy various needs. Motivation is a satisfying way to meet an employee's needs, which means that when a person's needs are met by certain factors, that person will exert the best effort to achieve the organization's goals (Robbins, 2006). Therefore the key to success of a manager / leader in moving his subordinates lies in the ability to understand the

theory of motivation so that it becomes an effective driving force in an effort to increase productivity in a company. According to Robbins, (2006) Motivation is a satisfying way to meet an employee's needs, which means that when a person's needs are met by certain factors, the person will exert the best effort to achieve the organization's goals. Work motivation can be defined as "a psychological impulse to a person who determines the direction of a person's behavior in the organization, the level of effort, and the level of persistence or resilience in the face of an obstacle or problem (level of persistence) "

Motivation is the power, both from within and from outside that encourages a person to achieve certain predetermined goals. It can also be interpreted as a mental boost to individuals or people as members of society (Uno, 2008). According to Purwanto (1998) motivation is a driving force, the reasons or impulses in human that cause someone to do something. Human's motivation is the driver, desire or other driving force that comes from within a person to do something. Such motivation provides goals and direction to human behavior, as well as activities that are conducted every day have a certain motivation.

In working, an employee is not enough if only choose the direction of behavior that is functional for the achievement of corporate goals. But it must also have the effort to work hard in running the selected behavior. And for the level of persistence refers to employee motivation when faced with a problem, obstacles or barriers in work, how hard an employee continues to strive to run the selected behavior.

There is also job satisfaction which is a key aspect in the success of the organization. Hasibuan (2001) states that job satisfaction is a pleasant emotional attitude and loves her job. Furthermore, Sunarto (2005) states that job satisfaction is a pleasant or unpleasant emotional state for employees looking at their work.

Robbins (2011) defines job satisfaction as a positive feeling in a job, which is the impact / evaluation result of various aspects of the job. Job satisfaction is an assessment and attitude of a person or employee to his work and related to the work environment, the type of work, relationships among co-workers, and social relationships in the workplace. Simply, job satisfaction can be summed up as what makes a person likes the work done because they feel happy in doing their work. Handoko (2001) "job satisfaction is a pleasant or unpleasant emotional state by which employees view their work". Job satisfaction is a feeling that endorses or not support in an employee related to his or her job or condition. Job-related feelings involve aspects such as endeavors, career development opportunities, relationships with other employees, job placements, and organizational structure. Meanwhile, feelings associated with himself include age, health conditions, abilities and education.

## 2. Main Purpose of Research

PLN Nusa Tenggara Barat (NTB) is one of the State-Owned Enterprises which is located at Street Langko No. 25-27 Ampenan, Mataram City. Before becoming independent, PLN NTB is part of PT PLN (Persero) Business Unit Bali, NTB, NTT. Based on the Decree of the Board of Directors Number: 086.K / 010 / DIR / 2002 dated June 25, 2002, PT PLN (Persero) West Nusa Tenggara Region officially became an independent institution. This raises new challenges, ranging from incomplete availability of facilities and infrastructure such as office buildings, work support facilities and of course employees who are the motor of operational driving as the regional office. To support the operation at that time PLN NTB borrows building from Sector Lombok.

An effort to improve employee productivity is also a manifestation of the seriousness of PLN NTB to work and strive in harmony with the philosophy, vision, mission, and corporate values that have been mutually agreed. But in reality there are still many complaints from the community about the productivity of PLN NTB employees. This phenomenon is interesting to investigate further, in order to know whether the employee's productivity is caused by the lack of number of employees, lack of education or lack of ability, lack of employee motivation and lack of employee satisfaction in carrying out the work and solve problems.

Given the importance of work motivation and job satisfaction, the motivation and job satisfaction of employees in the work is to do business by giving motivation and job satisfaction to employees in the company through a series of business or specific encouragement such as promotion and bonus in accordance with company policy, so motivation and satisfaction work of employees in work will be maintained. From the above description, this study aims to examine the factors of motivation and job satisfaction on employee productivity, and the influence of motivation factors through job satisfaction on employee productivity in PT PLN (Persero) NTB Region.

## 3. Research Methods

### 3.1. Types of Research

This research is conducted by using a quantitative approach. The type of research used in the explanatory (explanatory) is research that attempts to explain the causal relationship between independent variables which are motivation and job satisfaction with the dependent variable that is employee work productivity. Sources of data in this study use primary data and secondary data.

### 3.2. Determination of Research Sample

The population in this study is all employees of PLN NTB consisting of 88 people. Data collection method used is census, so that all members of the population used as research respondents

### 3.3. Research Variable

The research variables analyzed in this research are:

- Job Motivation Factor (X).
- Job Satisfaction (Z).
- Work Productivity (Y).

## 4. Analysis Method

A method of data collection in this study is done through questionnaire / research questionnaire. The questionnaire / research questionnaire model used is Likert scale. Likert scale used is 5 scales with categories, namely Strongly Disagree (STS) Score 1, Disagree (TS) Score 2, Neutral (N) Score 3, Agree (S) Score 4, and Strongly Agree (SS) Score 5. In determining the scale range of the class interval, it can be obtained from the formula:

$$RS = \frac{m - n}{b}$$

Information:

RS = Scale range at class interval

m = the highest score on the Likert scale is five

n = lowest score on Likert scale i.e. one

b = Number of classes

The measurement model consists of the relationship between the observable variable items and the latent constructs measured by the item. In doing the analysis with PLS done with two stages, namely:

1. First, assess the outer model or measurement model.

The measurement model is an assessment of the reliability and validity of research variables or defined as the relationship between indicators with latent variables. There are three criteria to assess the measurement model: convergent validity, discriminant validity, and composite reliability.

2. Second, assess the inner model or structural model.

Inner model or structural model testing is done to see the relationship between construct, significance value and R-square of the research model. The structural model is evaluated by using R-square for dependent constructs, Stone-Geisser Q-square test for predictive relevance and t-test as well as the significance of the structural path parameter coefficients.

## 5. Discussion of Research Results

Based on research conducted to 88 respondents PLN NTB employees, answers or responses of respondents in answering the list of statements submitted by the researcher can provide an overview of respondents based on the variables studied.

No	Gender	Frequency (Person)	Percentage (%)
1	Male	64	73
2	Women	24	27

Table 1: Characteristics of Respondents by Sex

Source: Primary Data Processed

Based on Table 1 shows descriptive statistical analysis of gender background, most male employees are 64 people (73%) and female (24%). Thus it is known that the work force in PLN NTB majority is male. This is in line with the company's needs in the employee job descriptions of which more needed are men. Male employees have job of strong physical category, resistant to environmental changes and willing to work shift, whereas female employees only need a little because job description which is given is job administration, budget compilers and indoor work that support the work on PLN NTB

No	Age (years)	Frequency (Person)	Percentage (%)
1	≤ 30	17	19
2	31 - 40	19	22
3	41 - 50	17	19
4	≥ 51	35	40

Table 2: Characteristics of Respondents by Age

Source: Primary Data Processed

Table 2 shows a descriptive statistical analysis of the age background, most PLN NTB employees aged close to retirement are as many as 35 people (40%). Thus it is known that employees who served in PLN NTB is dominated by employees with productive age between 30 years to 50 years as many as 60 percent. This is because the company rarely recruit employees and more retain old employees given the work done requires experience and requires a lot of training that has been held by the company

No	Education	Frequency (Person)	Percentage (%)
1	SMA/SMEA/STM	20	22
2	Diploma (D1/D2/D3)	26	30
3	Strata 1 (S1)	36	41
4	Strata 2 (S2)	6	7

Table 3: Characteristics of Respondents by Education  
Source: Primary Data Processed

Based on Table 3 descriptive statistical analysis of the educational background, most of the employees have a Diploma education background of 26 people (30%) and who have S1 education background of 36 people (41%). Thus it is known that the employees in charge of having higher education, this is in accordance with the circumstances of work that requires not only experience, but also adequate education, because in carrying out the work required a high ability of thought and a good pattern of thinking and responsiveness in work individually or in groups

No	Work Period (years)	Frequency (Person)	Percentage (%)
1	≤ 5	9	10
2	6 - 15	27	30
3	16 - 25	26	30
4	≥ 26	26	30

Table 4: Respondent's Characteristic Based on Work Period  
Source: Primary Data Processed

Based on table 4, the statistical analysis of the working period, indicate that the employee is dominated by employees who have a working period of 6 to 15 years, 16 to 25 years, and more than 25 years of 30 percent respectively. This indicates that the employee recruitment is performed every ten years, so that the ratio of the employee's tenure becomes equally distributed. While the employees are classified as new (working period less than 6 years) as much as 10 percent of the total population. Length of work on the company also become a benchmark of employee experience where in his work requires employees with good experience in their field, given the considerable job risk on PLN NTB

## 6. Description of Research Variables

### 6.1. Job Motivation Factor

In this study, the descriptive statistics of the answers to the questionnaire shown include the description of the data on respondents' answers to the items of each variable studied. Through the research results can be known respondents' answers on the questionnaire and presented in the following tables:

Indicator	Job Motivation Factor (X)	Average Score	Category
X <sub>1.1</sub>	Economic Needs	4,06	Height
X <sub>1.2</sub>	Comfortable work	4,13	Height
X <sub>1.3</sub>	The existence of superior policy	3,75	Height
X <sub>1.4</sub>	Fun work	4,06	Height
X <sub>1.5</sub>	Work time discipline	4,24	Very High
X <sub>1.6</sub>	Getting salary	4,05	Height
X <sub>1.7</sub>	Work achievement award	4,08	Height
X <sub>1.8</sub>	Incentive Bonus	4,05	Height
	<b>General Category</b>	<b>4,05</b>	<b>Height</b>

Table 5: Average Scores of Work Motivation Factor Indicators  
Source: Primary Data Processed

Based on Table 5, the descriptive statistical analysis can be categorized that the employee motivation of PLN NTB is high. This is evidenced by the employee response which states it is seen from the total average score of 4.05 which belongs to

the high criteria between 3.40 to 4.19. Work time discipline (X1.5) is an indicator with the highest score of 4.24 stating that employees of PLN NTB have high work motivation when viewed from the discipline of their time in carrying out their work.

### 6.2. Job Satisfaction

Job Satisfaction Variables consists of ten statement items. The indicators illustrate fair and open oversight, increased satisfaction, equipment, conditions of temperature / space, coworkers, relationships between superiors and staff, appropriateness of interest, talent appropriateness, job autonomy, and job variation.

Indicator	Job Satisfaction (Z)	Average Score	Category
Z <sub>1.1</sub>	Fair and open supervision	4,51	Very Satisfied
Z <sub>1.2</sub>	Increasing satisfaction	4,52	Very Satisfied
Z <sub>1.3</sub>	Supplies	4,42	Very Satisfied
Z <sub>1.4</sub>	Situation temperature / room	4,03	Satisfied
Z <sub>1.5</sub>	Coworkers	4,15	Satisfied
Z <sub>1.6</sub>	Relationship between superiors and subordinates	4,17	Satisfied
Z <sub>1.7</sub>	Conformity interest	4,07	Satisfied
Z <sub>1.8</sub>	Suitability talent	4,16	Satisfied
Z <sub>1.9</sub>	Discretion run	4,13	Satisfied
Z <sub>1.10</sub>	Using more than one skill	4,16	Satisfied
	<b>General Category</b>	<b>4,23</b>	<b>Very Satisfied</b>

Table 6: Average Value of Job Satisfaction Indicators

Source: Primary Data Processed

Based on Table 6 shows the descriptive statistical analysis can be categorized that Job Satisfaction perceived by employees are satisfied. This is evidenced by the employee response which states it is seen from the total average score of 4.14 which is included in the criteria satisfied between 3.40 to 4.19. Item indicator increase satisfaction (Z1.2) is the item with the highest score perceived respondents is the average value of 4.52. While the temperature / room temperature indicator item (Z1.4) is perceived as the lowest indicator, this is indicated by the lowest average gain of 4.03 of all Job Satisfaction indicator items.

### 6.3. Work Productivity

In this variable there are 7 statement items that describe the Employee Productivity Employee PLN NTB, namely:

Indicator	Work Productivity (Y)	Average Score	Category
Y <sub>1.1</sub>	Quality jobs	4,07	High
Y <sub>1.2</sub>	Initiative	4,17	High
Y <sub>1.3</sub>	Knowledge	4,22	Very High
Y <sub>1.4</sub>	Skill	4,17	High
Y <sub>1.5</sub>	Abilities	4,18	High
Y <sub>1.6</sub>	Attendance	4,04	High
Y <sub>1.7</sub>	Leisure	4,06	High
	<b>General Category</b>	<b>4,13</b>	<b>High</b>

Table 7: Average Value of Work Productivity Indicators

Source: Primary Data Processed

Based on Table 7 shows descriptive statistical analysis can be categorized that employee work productivity is good. Seeing the average value of the work productivity variable can be explained by the average value of each indicator of 4.13 which falls into either criterion of 3.40 to 4.19. It states that Employee Productivity is high or productive. The individual reflexive size is said to be high if it correlates more than 0.70 with the measured variable. Ghozali (2008) to research the initial stage of the scale measurement of loading values 0.50 to 0.60 is considered sufficient.

## 7. Partial Least Square Analysis (PLS)

The results of processing using PLS can be seen that the value of outer model or correlation between indicators with variables that have met the convergent validity because it has a loading factor value above 0.60 will be analyzed further, while those that do not meet the criteria are not included in the next analysis.

No.	Variable	Indicator	Outer Loading
1	Job Motivation Factor	X1.01	0,546
		X1.02	0,747
		X1.03	0,561
		X1.04	0,573
		X1.05	0,705
		X1.06	0,698
		X1.07	0,785
		X1.08	0,491
2	Job Satisfaction	Z1.01	0,629
		Z1.02	0,598
		Z1.03	0,627
		Z1.04	0,657
		Z1.05	0,688
		Z1.06	0,747
		Z1.07	0,719
		Z1.08	0,889
		Z1.09	0,746
		Z1.10	0,757
3	Work Productivity	Y1.01	0,816
		Y1.02	0,877
		Y1.03	0,839
		Y1.04	0,868
		Y1.05	0,920
		Y1.06	0,566
		Y1.07	0,624

Table 8: Outer Loadings (Measurement Model)

Source: Data Processed

Based on Table 8 shows that the value of Outer Loadings (Measurement Model) there are four indicators of Work Motivation has an outer loading value greater than 0.60. Indicator of job performance award (X1.07) is the strongest measure of work motivation variable because it has the largest outer loading value (0.785). So it can be stated that the four indicators of Work Motivation is a valid indicator as a measure of work productivity variables. For job satisfaction variable proves that there are nine indicators that have outer loading greater than 0.60. Indicator according to talent (Z1.08) is the strongest measure of Job Satisfaction variable because it has the largest outer loading value (0.889).

So it can be stated that the ninth indicator Job Satisfaction is a valid indicator as a measure of work productivity variables. Furthermore, taking into account the average value on the variable Work Productivity, there are six indicators that have the value of outer loading greater than 0.60. These results indicate that the quality of work, initiative, knowledge, skills, abilities, and leisure time are the strongest indicators in measuring Work Productivity.

### 7.1. Discriminant Validity

Discriminant validity is performed to ensure that each concept of each latent variable is different from that of the other variables. The model is said to have good discriminant validity if each value loading indicator of a latent variable has a loading value greater than the loading value if correlated with other latent variables. Discriminant validity test results are shown in Table.

Average Variance Extracted			Correlation		
	AVE	Roots AVE	Motivation Factor (X)	Satisfaction (Z)	Productivity (Y)
Motivation Factor (X)	0,595	0,771	1,000		
Satisfaction (Z)	0,525	0,725	0,705	1,000	
Productivity (Y)	0,699	0,836	0,659	0,748	1,000

Table 9: Discriminant Validity

Source: Data Processed

Based on Table 9 it can be explained that from the results of the three variables have Average Variance Extracted (AVE) above 0.50 and all variables have an AVE root value higher than the correlation coefficient between one variable with other variables so it can be said the data has good discriminant validity

7.2. Composite Reliability

Criteria for validity and reliability can also be seen from the reliability value of a variable and the Average Variance Extracted (AVE) value of each variable. Variables are said to have a high reliability if the value of composite reliability above 0.70 and AVE is above 0.50.

Variable	Composite Reliability
Motivation Factor (X)	0,855
Satisfaction (Z)	0,907
Productivity (Y)	0,932

Table 10: Value of Composite Reliability  
Source: Data Processed

Table 10 indicates that all variables meet the composite reliability because the value is above the recommended number, which is above 0.70 which means that all variables have met the criteria of reliable

7.3. R-Square

Assessment model with PLS begins by looking at R-square for each dependent latent variable. Changes in R-square values can be used to assess the effect of certain exogenous latent variables on endogenous latent variables that have substantive influences. Table 4.12 shows the results of R-square estimation using SmartPLS.

Variable	R-Square
Satisfaction (Z)	0,497
Productivity (Y)	0,594

Table 11: R-Square value  
Source: Data Processed

Based on Table 11 shows the value of R-square variable Job Satisfaction 0.497 and Work Productivity 0,594. The higher the R-square value, the greater the ability of the exogenous variables can be explained by the endogenous variables so the better the structural persuasion. For Job Satisfaction variables have R-square value of 0.497 (moderate) which means 49.70 percent variance Work Motivation can be explained by Job Satisfaction variables while the rest is explained by other variables outside the research model. Work productivity variable has R-square value of 0,594 (moderate) which mean 59,40 percent variance Job Motivation Factor and Job Satisfaction can be explained by work productivity variable while the rest is explained by other variable outside research model.

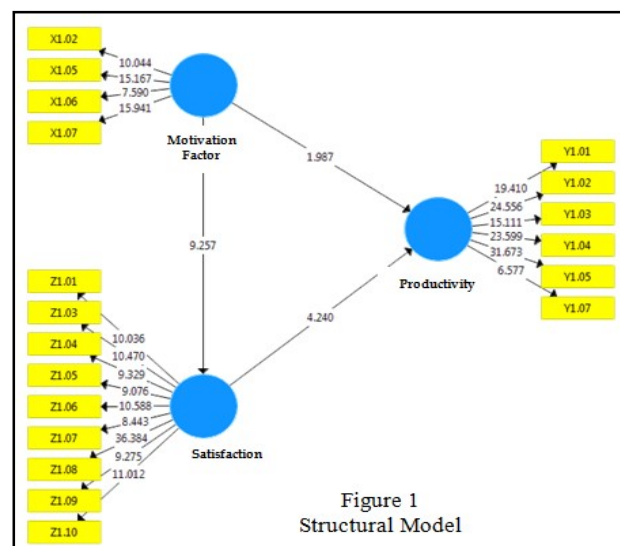


Figure 1: Structural Model

From Figure 1 it can be explained that the covariance of the indicator measurement is influenced by the latent construct or reflects the variation of the unidimensional construct described by the shape of the circle with multiple arrows from the construct to the indicator. This model hypothesizes that changes in latent constructs affect changes in indicators. In the model there is one exogenous variable that is Work Motivation, one endogenous variable between the Job Satisfaction, and one endogenous dependent variable that is Work Productivity.

Variable	Original Sample	Standard Error	T Statistics	P Values	Conclusion
Motivation Factor (X) ->Satisfaction (Z)	0,705	0,076	9,257	0,000	Accepted
Motivation Factor (X) ->Productivity (Y)	0,261	0,131	1,987	0,047	Accepted
Satisfaction (Z) ->Productivity (Y)	0,564	0,133	4,240	0,000	Accepted

Table 12: Result for Inner Weights

Source: Data Processed

Based on Table 12, the significance of the estimated parameters is very useful as to the relationship between research variables. The basis used in testing the hypothesis is the value contained in the output of result for inner weight.

## 8. Conclusion

Based on the results of research on employees of PLN NTB, it can be concluded several things as follows:

- Work Motivation factors have a positive and significant impact on Job Satisfaction. This shows that the higher the work motivation experienced by employees, then the Job Satisfaction will increase. Vice versa if Motivation Work is low or decreased it will reduce the level of Employee Satisfaction.
- Work Motivation factors have a positive and significant effect on Work Productivity. This means that the higher the work motivation Employees, the Work Productivity will be better. Vice versa if Motivation Work is low, it will have an impact on the worsening level of employee productivity.
- Job Satisfaction is positive and significant to the Work Productivity. These results prove that the more satisfied employees of their work, the Employee Productivity will be better in generating job output, and vice versa.
- The direct influence of Work Motivation factors on Employee Productivity through Job Satisfaction is significant. In addition, there is also a significant indirect influence between the variables of Work Motivation on Work Productivity.

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