



# The Impact of Work Motivation and Work Loyalty to Work Productivity

(Quantitative Research at PT Cisarua Mountain Dairy)

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## ABSTRACT

This study aims to determine the effect of work motivation and loyalty on the work productivity of PT. Cimory employees, and the research was conducted directly at the PT. Cimory factory in the Sentul industrial area. This research is a descriptive study with a quantitative approach, the data collection techniques used in this study are questionnaires and direct interviews with related parties according to the research objectives. The research subjects used were employees of PT. Cimory as many as 100 respondents. The analysis technique uses the classical assumption test, multiple regression with the model feasibility test, namely the t test and f test. The results showed that from 100 respondents it was known that by means of the t test (partial), the variable of work motivation on the work productivity of PT. Cimory employees obtained a significant influence, with a value of  $t_{count} 4.021 > 1.660 t_{table}$ . As for the job loyalty variable partially there is no significant effect on the work productivity of PT. Cimory employees, with a value of  $t_{count} 0.462 < 1.660 t_{table}$ . While the f test (simultaneous) work motivation and job loyalty have a significant effect on the work productivity of PT. Cimory employees, with a calculated f value of  $8.108 > 3.09$ .

**Keywords:** work motivation, job loyalty, work productivity

## RESEARCH BACKGROUND

PT. Cisarua Mountain Dairy (PT. Cimory) is one of the Milk Processing Industries located in the mountainous area of Cisarua, Bogor Regency, West Java with a total of 530 employees. PT. Cisarua Mountain Dairy (PT. Cimory) was established in 2006 and is one of the subsidiaries of MACRO Group, which is engaged in food based on the four best natural proteins namely meat produced by (PT. Macroprima Panganutama), Milk (PT. Cisarua Mountain Dairy), eggs (PT. Java Egg Specialties) and soybeans (PT. Indosoya Source of Protein). This milk processing company is very concerned about the lives of dairy farmers in Indonesia. In an effort to reduce imports of milk powder and raise the standard of living of farmers, PT. Cimory absorbs local milk at a very good price, that is, all products produced by PT. Cimory is made from fresh milk, which is managed into yogurt drinks and Ultra High Temperature (UHT) milk with various flavors.

**Table 1. No. of Employees PT. Cimory 2015-2019**

No	Year	Amount
1	2015	571
2	2016	584
3	2017	572
4	2018	553
5	2019	530

Sources: PT Cimory 2019

Based on the data in table 1 obtained from the company, for the last five years there has been a decrease in the number of employees from 2016. The decrease in the number of employees from year to year is caused by several factors including, resigning or withdrawing from the company because of other more attractive jobs, reasons for withdrawing because the work environment offered is better, some retire, die and are laid off because they do not comply with existing rules in the company.

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These things are related to poor HR planning or existing planning only for the short term and does not apply to the company's long-term plans. Based on the statements above and encouraged to explore the field of economics, especially in the concentration of human resource management that has been obtained in college, the author is interested in conducting research entitled "The Effect of Work Motivation and Work Loyalty on Work Productivity."

## LITERATURE BACKGROUND

### Work Productivity

Riyanto (1986: 22) states that work productivity is a comparison between the results achieved (output) with the overall resources needed (input). Productivity contains the notion of comparison between the results achieved and the role of the labor union of time. Edy Sutrisno (2010: 99) stated that productivity is generally defined as the relationship between output (goods or services) and input (labor, materials, money). Productivity is a measure of productive efficiency (Rzepka & Bojar, 2020). A comparison between output and input. Based on several definitions, it can be concluded that work productivity is the ability to produce a quality of goods through a comparison between output and input results with the resources needed in a certain time efficiency, with the following indicators (Krupskyi & Kuzmytska, 2020):

- a. The ability to produce things
- b. Comparison between the results achieved based on the quality produced (Quality / Quality)
- c. Required resources (Human resources)
- d. Volume timeframe (Efficiency)
- e. Education
- f. Physical and spiritual health
- g. Working environment
- h. Effective leadership style
- i. Motivation
- j. Equipment used
- k. The equipment used has a very important effect in increasing work productivity.

### Work Motivation

Malayu P. Hasibuan (2003: 143) states that motivation is a driving force that creates a person's work enthusiasm so that they want to work together, work effectively and integrated with all forces and efforts to achieve satisfaction. Veithzal Rivai (2011: 837) states that motivation is a series of attitudes and values that influence individuals to achieve specific things according to individual goals. These attitudes and values are invisible that give the power to encourage individuals to behave in achieving goals (Thani & Mirkamali, 2018).

Based on several definitions, it can be concluded that motivation is a driver that creates a person's work excitement to achieve satisfaction and encourages individuals to achieve their individual needs goals such as incentives, with the following indicators (Jaworski, et al., 2018).

- a. Movers that create one's work excitement to encourage individuals to achieve goals (Work spirit)
- b. Achieving satisfaction (Satisfaction)
- c. Individual needs such as incentives (Needs)

The objectives of Work Motivation include (Alan Saks, 2014), such as:

- a. Increase employee morale and job satisfaction.
- b. Increase employee work productivity.
- c. Maintaining the stability of company employees.
- d. Improve employee discipline.
- e. Streamline employee procurement.
- f. Creating a good working atmosphere and relationship.
- g. Increase employee loyalty, creativity and participation.
- h. Improve the level of well-being of employees.
- i. Heighten employees' sense of responsibility towards their duties.
- j. Increase the efficiency of the use of tools and raw materials.

Factors that affect work motivation, among others, (a) Internal Factors, including Achievement, Recognition, Work Itself, Responsibility, and Development of Individual Potential, and (b) External Factors among others, Salary or Wages, Working Conditions, Company Policy and administration, and interpersonal relationships (Kodden & Universiteit, 2020):

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### **Work Loyalty**

Seo & Hill, (2005) stated that work loyalty is an employee's effort in defending the company, by showing that the employee plays an active role in his company. In general, loyalty can be interpreted as loyalty, devotion and trust given or addressed to a person or institution in which there is a sense of love and responsibility to try to provide the best service and behavior. Based on the definition above, it can be concluded that work loyalty is as the attitude and behavior of employees in defending the company who play an active and responsible role in the company and the loyalty of employees who put the interests of the company above their interests, devotion and trust given to the company to continue to work and try their best, with the following indicators (Nnah Ugoani, 2020):

- a. Employees' efforts in defending the company and playing an active role in the company (Attitude and Behavior)
- b. Devotion and trust given to the institution (Kepercayaan\_
- c. Responsibility, work and try our best towards the company (Responsibility)
- d. Employee loyalty, by putting the interests of the company above personal interests (loyalty).

### **Factors That Increased Work Loyalties**

Pingping & Huang, (2019) stated that factors can increased work loyalties, such as:

- a. Improve close relationships between employees
- b. Mutual openness in working relationships Mutual understanding between leaders and subordinates
- c. Treating employees not as laborers, but as partners
- d. Leaders try to dive into the employee's personal family

### **Factors Influenced Work Loyalties**

Narzary & Palo, (2020) stated some factors influenced work loyalties, such as:

- a. The emergence of work loyalty as follows:
- b. Personal characteristics, including: age, length of service, level of education, achievements possessed, race
- c. Personality traits
- d. Job characteristics include: job challenges, job stress, opportunities for social interaction, job enrichment, task identification, task feedback, and task fit.

The design characteristics of the enterprise, which can be seen from centralization, the level of formality, the degree of participation in decision making, indicate an attitude of responsibility towards the company. Experience gained in the company, namely the internalization of individuals towards the company. After carrying out work in the company includes a positive attitude towards the company, trust in the company so as to cause a sense of security, feeling personal satisfaction that can be fulfilled by the company (Quarstein, et al., 1992)

### Theoretical Framework

This research will reveal the effect of work motivation and employee work loyalty on employee work productivity at PT. Cisarua Mountain Dairy. The respondents studied were employees of PT. Cimory has 500 employees. It is predicted that work motivation and work loyalty have a positive influence on employee work productivity.

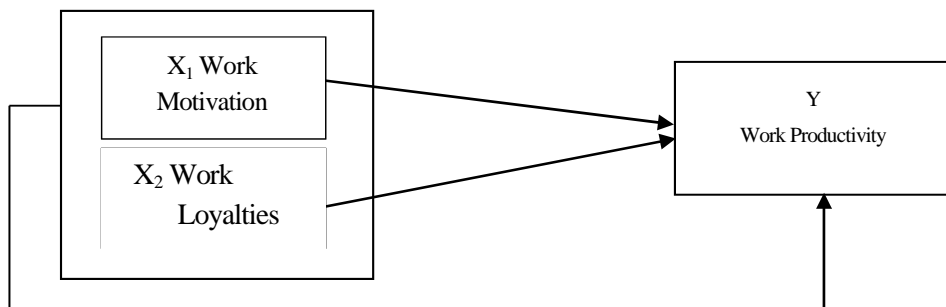


Figure 1. Theoretical Framework

The hypotheses in this study are:

- H0: there is no positive and significant effect of work motivation on the work productivity of PT Cimory employees
- H1: It is suspected that there is a positive and significant influence of work loyalty on the work productivity of PT Cimory employees
- H2: It is suspected that there is a positive influence of work loyalty on the work productivity of PT Cimory employees.

### RESEARCH METHODOLOGY

The research model is quantitative, quantitative is a process of finding knowledge that uses numbers as a tool to find information about what we want to know. According to Sugiyono (2012: 7) quantitative research methods can be interpreted as research methods based on the philosophy of positivism, used to examine certain populations or samples (Soegiyono, 2011).

### Population and Samples

The population used in this study were employees of PT. Cisarua Mountain Dairy in 2019 which will be taken by 500 people. In this study, sampling used the Simple Random Sampling technique. The number of samples in this study was determined based on the slovin formula with a confidence level of 90% (significant level 0.10). The formula of slovin with a confidence level of 90% (significant level 0.10) is as follows:

$$n = \frac{N}{1+N(e)^2}$$

The definitions:

n = number of sample

N = Number of Population

Final Calculation:

$$n = \frac{500}{1+500(0,01)^2}$$

$$= 99,8 \text{ rounded to } 100$$

### Data Collection Techniques

Data collection techniques in this study used interviews and questionnaires.

### Research Instruments

In this study, the instrument used was a questionnaire containing several questions to be filled out by respondents or employees of PT. Cisarua Mountain Dairy. In this study, researchers used a closed questionnaire/questionnaire, where respondents only chose available answers. The measurement scale used in this instrument is the Likert scale.

### Data Analysis Techniques

The research was assisted by the SPSS program version 23.00 with analysis tools:

- Validity Test
- Reliability Test
- Descriptive Analysis Techniques
- Classical Assumption Test
- Multiple Regression Test
- Due Diligence of a Model

### Discussions

#### Validity Test

To test the validity of SPSS 23.0 with a significant level of 5%. From 100

**Table 2. Validity Test Result of Work Productivity**

Dimensions	Variable	r-Count	r-table	Results
Ability	Y.1	0,418	0,195	Valid
	Y.2	0,558	0,195	Valid
	Y.3	0,368	0,195	Valid
Quality	Y.4	0,217	0,195	Valid
	Y.5	0,392	0,195	Valid
HRM	Y.6	0,525	0,195	Valid
	Y.7	0,468	0,195	Valid
Efficiency	Y.8	0,495	0,195	Valid
	Y.9	0,583	0,195	Valid
	Y.10	0,335	0,195	Valid

Sources Data from SPSS 23 (2020)

#### Reliability Test

Reliability is a measure of the stability and consistency of respondents in answering things related to question constructs which are dimensions of a variable and arranged in a form of questionnaire. The number of respondents who are sampled then the calculation r table is as follows:

$$df = N - 2 \quad df = 100 - 2$$

$$df = 98$$



This technique compares the calculated value with  $r_{table}$ ,  $r_{table}$  is found at significance 0.1 with a 2-sided test and sum:

$$\begin{aligned} \text{data } (n) &= 100, \\ df &= n-2 \end{aligned}$$

So,  $r$ -table amounted 0.195.

**Table 3. Validity Test Result of Work Motivation**

Dimensions	Variable	r-count	r-table	Results
Work	X1.1	0,388	0,195	Valid
	X1.2	0,382	0,195	Valid
Motivation	X1.3	0,560	0,195	Valid
	X1.4	0,377	0,195	Valid
Job Satisfaction	X1.5	0,380	0,195	Valid
	X1.6	0,423	0,195	Valid
	X1.7	0,364	0,195	Valid
Job Needs	X1.8	0,568	0,195	Valid
	X1.9	0,438	0,195	Valid
	X1.10	0,417	0,195	Valid

Sources: Data from SPSS 23, 2020

**Table 4. Validity Test Result of Work Loyalty**

Dimensions	Variable	r-count	r-table	Results
Attitude & Behaviors	X2.1	0,289	0,195	Valid
	X2.2	0,383	0,195	Valid
	X2.3	0,411	0,195	Valid
Responsibilities	X2.4	0,421	0,195	Valid
	X2.5	0,525	0,195	Valid
	X2.6	0,260	0,195	Valid
Loyalty	X2.7	0,370	0,195	Valid
	X2.8	0,362	0,195	Valid
Trust	X2.9	0,559	0,195	Valid
	X2.10	0,480	0,195	Valid

Sources: Data from SPSS 23 (2020)

Reliability coefficient category (Guilford, 1956: 145) such as:

- $0,60 < r_{11} \leq 0,80$  High reliability
- $0,40 < r_{11} \leq 0,60$  Average reliability
- $0,20 < r_{11} \leq 0,40$  Low reliability
- $r_{11} \leq 0,20$  Reliable is very low (Not applicable)

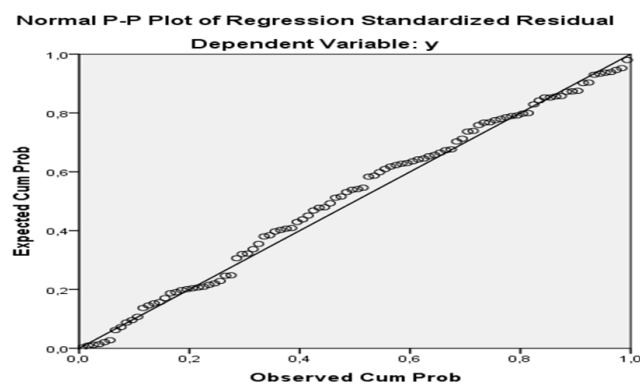
**Table 5. Reliability Test Results**

Variable	Reliabilities	Remarks
Work Motivation (X1)	0,502	Average
Work Loyalty (X2)	0,431	Average
Work Productivity (Y)	0,526	Average

Sources: Data from SPSS 23 (2020)

### Classical Assumption Test Normality Test

To detect normality can use chart analysis through normal P-P Plot charts. Whether or not the data is normal can be seen on the basis of decision making as follows:

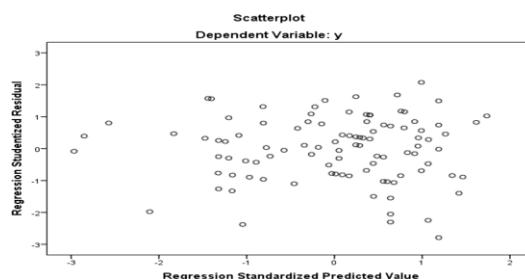


**Figure 2. Regression Test Result**

The regression model is normally distributed, because it can be seen from the data spreading around the diagonal line and following the diagonal direction, the regression model meets the assumption of normality.

### Heteroskedasticity

To detect the presence or absence of heteroscedasticity by looking at the scatterplot. If there is no clear pattern (wavy, widening then narrowing) in the scatterplot image, as well as spreading points above and below the number 0 on the Y-axis, then it can be concluded that heteroscedasticity does not occur in the regression



model



**Figure 3. Scatterplot**

**Table 5 Autocorrelation Test Result**

Model	Change Statistics					Durbin-Watson
	R Square Change	F Change	df1	df2	Sig. F Change	
1	0,143	8,108	2	97	0,001	1,143

Sources: Data from SPSS 23 (2020)

Based on the table above, the Durbin-Watson value is 1.143, when compared to the D-W table value in this model, there is an autocorrelation problem because the value is far below the D-W table value, namely dL 1.633 and Du 1.715.

### Multiple Regression Test

Based on the output SPSS 23 explains that the value of the constant Coefficients is 16.136, while the value of motivation (X1) is 0.446 and the value of the loyalty variable (X2) is 0.063.

### Autocorrelation Test

Where  $Y = 16.136 + 0.446 + 0.063$

### Feasibility Test of a Statistical Test Model f

Based on the F table with the values  $df\ 1 = 1$  and  $df\ 2 = 97$ , the F value of the table is 3.09. From the regression results of SPSS 23 output, it can be seen that the value of f is calculated (8.108), so it can be concluded that the independent variable (work motivation X1, work loyalty X2) simultaneously has a significant effect on the dependent variable (productivity Y).

**Table 6. Statistical Test Result f ANOVA**

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	261,538	2	130,769	8,108	,001 <sup>b</sup>
	Residual	1564,5	97	16,129		
	Total	1826,04	99			

Sources: Data from SPSS 23 (2020)

### Statistical Test t

Based on the output of SPSS 23 with the number  $n = 100$ , the table t value is  $n - 1 = df - 1 = 99$ , the table t value is 1.660, it can be concluded as follows:

- The variable X1 (work motivation) has a calculated t value of  $4.021 > t$  table 1.660, meaning that the independent variable X1 (work motivation) affects the dependent variable Y (work productivity).
- The variable X2 (work loyalty) has a calculated t value of  $0.462 < t$  table 1.660, meaning that the independent variable X2 (work loyalty) has no effect on the dependent variable Y (work productivity).





**Table 7 Statistical Test Result t**

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	16,136	5,974		2,701	0,008
	X1 Motivasi	0,446	0,111	0,379	4,021	0
	X2 Loyalitas	0,063	0,136	0,043	0,462	0,645

Sources: Data from SPSS 23 (2020)

### Uji Determinasi ( $R^2$ )

Based on the output from SPSS 23, calculated score  $R^2$  (R Square) amount 0,126 or 13%, it means the influence percentage of independent variables (motivation and loyalty) to the variable mentioned below:

**Table 8 Determination Test Result ( $R^2$ )**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,378 <sup>a</sup>	0,143	0,126	4,016

Sources: Data from SPSS 23 (2020)

### Conclusion

Based on the results of this study, the authors conclude:

- Based on the results of the t test, work motivation affects work productivity can be known from the results so that employees work harder in doing work, so that it can affect employee work productivity.
- Based on the results of the t test, work loyalty has no effect on work productivity can be known from the results of t count  $0.462 < 1.660$  t table. This is due to the lack of employee trust in the company will provide good feedback. This result proves that the strength that motivates employees to work harder at work depends on the interrelationship between what is wanted and needed from the results of the work, so that employee loyalty can arise towards the company which can increase employee work productivity.

### Suggestions

Based on the distribution of respondents' answers through questionnaires that have been distributed to employees of PT. Cimory regarding work motivation, work loyalty and work productivity, it can be known that employees have worked in accordance with company standards. For this reason, it is better for the company to maintain and improve what the company has run so far so that everything can run well and can provide good feedback to the company.

For future research, it's good to add variables that are lacking in this study, so that the research conducted will look more interesting by 3.09. This means that work motivation and work loyalty together affect employee work productivity.



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