

## **THE EFFECT OF TOTAL QUALITY MANAGEMENT IMPLEMENTATION AND WORK MOTIVATION ON EMPLOYEE PERFORMANCE (A Case Study At Spinning 1 Production Department PT. ApacInti Corpora)**

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### **Abstract**

*Global competition prompts businesses to improve the quality of their employee as the first value asset of an organization which can lead to achieve sustainability of business. This research examines the effect of total quality management implementation and work motivation on employee performance at Spinning 1 Production Department PT. ApacInti Corpora, Bawen, Semarang. Questionnaire is used as an instrument of primary data collection, which was distributed to 90 respondents. The method of this study is multiple regression analysis. The calculation result of the method shows that total quality management implementation and work motivation has positive and significant effect on employee performance and gave contribution to employee performance of 43% while 57% are influenced by other variables which are not described in this study.*

**Keywords:** *total quality management, work motivation, employee performance.*

## Introduction

### Background of The Study

Along with the development of international trade and agreements among countries, both industry and service sectors prompt to work more efficiently to face the enhancement business competition. Regarding the business competition and environment in global market, an organization requires professional human resources. According to Kaswan (2012), managing human resource would support organization to give a good value chain, so that in this customer-oriented economic era, people still become the first valuable asset to the organization. In reference to Hatane (2015), human resources, who are members of organization which are supposed to have critical knowledge about organization and its stakeholder will play important role in affecting the organizational performance. To preserve sustainability business system, the management has carried out various types of strategies. One of popular technique is total quality management. In management context, Nawawi (2001) argued that the activity of total quality management can't be separated from the human resource factors as the executor of production process, where they produces the product as demanded by customer. Besides the system established by company, the performance of individual in organization is defined by themselves. Therefore, a motivation is a crucial term to remain loyal in organization. According to Madklova (2015), in management, the term motivation is to describe forces within the individual that account for the level, direction, and persistence of effort expended at work. motivation represents those psychological processes that cause the arousal, direction, and persistence of voluntary actions that are goal oriented. PT. ApacInti Corpora is one of the biggest textile companies in Indonesia. As one of companies with export scale, the management have been trying to keep improve their performance in all sectors to face the global competition. Having six spinning unit, the yarn product is the most

demand product than other company's product. However, the discrepancy between "plan" and "do" was still found. One of the unachieved terms was product target inexpediency, with fluctuated achieved production realization in each month. In reference with Assauri (2008:21), in performing organizing and coordinating, production and operation manager have to make decision in the use of resource to achieve its goals, so that goods and services produced meets perfectly with what is expected among others, exact quality, exact quantity, timely, and at low cost.

### Research Objectives

The objectives of this research are:

1. To analyze the effect of total quality management implementation on employee performance in Spinning Production Department of PT. ApacInti Corpora.
2. To analyze the effect of motivation on employee performance in Spinning Production Department of PT. ApacInti Corpora.
3. To analyze the effect of total quality management implementation and work motivation on employee performance.

### Theory Framework

#### Total Quality Management

TQM has been widely implemented by companies throughout the world. Theoretically, many researchers have been introducing the definition of TQM. According to Tjiptono and Anastasia (2000:4), TQM is an approach to maximize the organization's competitiveness through continuous improvement in product, service, man, process, and its environment.

#### Total Quality Management Principles

Several literatures explain the principles of total quality management. According to Wibowo (2010 : 152), total quality management principles include customer satisfaction, people involvement, and quality

continuous improvement. To make it all succeed, management have to carry out benchmarking, product and service designing, process design, purchasing, and problem solving tool.

#### The Relationship between TQM and Human Resource

With reference to Nawawi (2001), in committing the total quality management approach, it cannot be distinguished from men factor. The role of human resource is important to fulfill the dynamic demand of customers. Therefore, in human resource management context, an organization is required to establish quality of work life (QWL). The company could establish it since there is a correlation between philosophy and TQM principles with QWL in the approach of human resource management.

1. It is focused on the active leadership.
2. It is focused to customer as the product or service consumer.
3. The quality of the product is examined and demonstrated based on the integrated business concept.
4. A culture is required to develop to providing a continuous improvement.
5. The managers obligate to stimulate the involvement of the employee through a work process as teamwork.
6. The use of problem solving in working is started by data collecting or information, established a systematic continuous analyzing and evaluating.
7. To address a supplier as an information provider partner to improve quality.

#### Motivation

Motivation is a complex issue in an organization. A motif of someone cannot be measured and examined directly, but it is reflected through the behavior. In reference to McShane and Glinow (2012), "motivation refers to the forces within a person that affect the direction, intensity, and persistence of voluntary behavior". Meanwhile Laegaard and Bindslev (2006 : 43) defines motivation

as a psychological condition which it affects to individual's behavior.

#### Motivation Theory

Maslow's needs model is probably the most well-known a model upon needs theory. Laegaard and Bindslev (2006) argued that needs is considered could motivate an individual due to the tension triggers attention, action and persistence. According to Handoko (2015), the indicators of motivation based on Maslow's theory are as follows (theoretical explanation) :

- a. Self-actualization This needs is the highest needs of human being. This needs include the utilizing of self-potential, growth and self-development.
- b. Esteem needs This needs include achievement and individual's prestige (appreciated, praised, and assured)
- c. Social needs This needs include the feeling accepted in a group, fellowship, kinship, and association.
- d. Safety and security needs This needs include physiological needs of human in daily life; workplace condition, assurance, and collateral security.
- e. Physiological needs This needs include the physical needs such as water, food, and a home.

#### Employee Performance

Employee performance is the successful in the completion of the task, as set and measured by a supervisor, based on acceptable standards that have been established, by utilizing the available resources effectively and efficiently (Tinorei in Hatane, 2015).

#### Performance Appraisal

According to Mathis and Jackson (2006 : 388), performance appraisal could be employed in several method which are categorized as described below:

- a. Supervisors assess their subordinates  
Traditionally, this method assumes based on cogitation that a supervisor is the most

qualified person to fairly and realistically evaluates his subordinate.

- b. Employees who assess their manager Present days, many organizations demand their employee or team member to assess their supervisor or manager. This method has several advantages; it is beneficial to identify a competent manager, helps the managers to be more responsive to his employee, it contributes to the career development of managers. However, this approach is usually limited for the sake of managerial improvement to avoid negative effect between manager and subordinate relationship.
- c. Peer Assessment This method is a good approach for helping colleagues. They may look for ideas which could be useful for helping the underperformance to improve his performance.
- d. Self Assessment Self-assessment can be implemented in certain situation. As a self- development tool, it could force the employees to concern on their strength and weakness. Although it is a contradictive issue which generates a question whether employee tend to be convenient to assess themselves or not, but still, employee-assessment can be a prestige and trusted source of performance information.

#### Linkage between TQM Implementation with Employee Performance

As management approach, TQM aims to meet or exceeds customer satisfaction. As outlined by Sadigloku and Zehir (2010), to achieve the satisfaction of customer, TQM as total quality setting is needed through employee empowerment. Employees are given training based on their needs to improve their skills and knowledge and help them to do their job well.

#### Linkage between Work Motivation with Employee Performance

According to Joseph (2015), organizational success is dependent upon members being

motivated to show their talents and ability. It is supported by statement argued by Wibowo (2011 : 389) that motivation certainly affect on performance although it is not the only factor which prompts a performance. Based on the description above, through motivation, an individual will do their best of ability to contribute their talent for the importance of the organization.

### Research Method

#### Population and Sample

A quantitative research employing a questionnaire is selected to collect data in this study. As a method, population and sample are determined as follows:

- a. Population The populations of this research are the entire production employees in Spinning 1 of PT. ApacInti Corpora.
- b. Sample Probability sampling is used as the sampling method with stratified random sampling as the sampling technique. Based on Slovin formula, the amount of the sample estimated is 82 respondents. In this study, it is defined to be 90 respondents. The sample distributes to sub division in the Spinning 1 which has 8 sub unit.

#### Research Data

It is applied to identify and extend information regarding the data included in the research.

- a. Primary Data It is directly obtained from the subject or object related to the topic studied, which is performed through questionnaire and observation technique.
- b. Secondary Data It is obtained from material containing information relevant to the subject matter of TQM, motivation, and employee performance from various literatures from library, international journal, and other published materials.

#### Data Collection

Method Several methods to collect data in this study are described below.

- a. Questionnaire  
According to Remenyiet. al (2005), questionnaire research is performed to obtain information that cannot be easily observed or that is not already available in written or computerized form. In this study, the instrument is designed in such way where the respondents are able to understand the objectives of the study and provide articulated answer administrated related to TQM implementation, Work Motivation, and Employee Performance.
- b. Literature Review In this study, literature review is included to enlarge the knowledge and complete data based on the research problem.
- c. Observation It is linked to understand the information available at the research's site to complete the supporting data.

#### Research Variable and Operational Definition of Variable

##### TQM Implementation (X1)

It Describes about a management system to obtain a quantity and quality of work and product. The indicators are adapted from Respati (2007) which consists of Top management support, Workforce management, process flow management, and employee attitude and behavior.

##### Work Motivation (X2)

It describes about encouragements that could drive individual to perform an excellent work. In this study, the indicators are adapted from Handoko (2015) and Laegaard and Binslev (2006), which consist of Actualization Needs, Esteem Needs, Social Needs, Safety and Security Needs, and Physiological Needs.

##### Employee Performance (Y)

It describes about the level success of employee on the job performed with standard, objectives, and criterion that have been established. In this study, the indicators are adapted from Hatane (2015) and Kaswan (2012) which consists of Quantity of work, Quality of work, Timeliness, and Attendance at work.

##### Measurement Scale

Semantic scale is selected to obtain interval data. In reference to Ferdinand (2013 : 206), the scale chosen for this research is 1-10 with two different adjectives on the side. The positive answer stood at the right side while the negative one lied on the left side.

##### Data Analysis

Multiple regression analysis is employed to measure how strong the relation is between the independent and dependent variable. Based on Sugiyono (2015) the formula is prescribed below.

$$Y = a + b_1X_1 + b_2X_2 + e$$

Where: Y = Employee Performance = Constanta  
b = Coefficient of regression  
X1 = Total Quality Management Implementation  
X2 = Work Motivation  
e = Estimated error standardized

## Result And Discussion

### Structural Model Validity Assessment

#### a. Multicollinearity Test

In reference with Ghozali (2011), the purpose of this test is to detect whether a correlation between independent variables is found in the regression model.

Table 1 Multicollinearity Test

Variable	Collinearity Statistics	
	Tolerance	VIF
1		
TQM implementation	.870	1.150
Work motivation	.870	1.150

Source: processed primary data with SPSS 22, 2017

The tolerance value should greater than 0.1 while the VIF value should be less than 10. Based on the table 1, the value meets the requirement, thus the regression model is free of multicollinearity tendency.

It is performed to know whether the residual of data has a normal distribution. Kolmogrov-Smirnov test is performed to detect data normality. It is employed to avoid different perception in concluding the data. The data is normal if the sig. value is greater than 0.05.

b. Normality Test

Table 2  
One-Sample Kolmogorov-Smirnov Test

		Unstandardized Residual
N		90
Normal Parameters <sup>a</sup>	Mean	.0000000
	Std. Deviation	.50999971
Most Extreme Differences	Absolute	.073
	Positive	.073
	Negative	-.067
Kolmogorov-Smirnov Z		.696
Asymp. Sig. (2-tailed)		.717

a. Test distribution is Normal.

Source: processed primary data with SPSS 22, 2017

From the table 2, the significant value is greater than 0.05, thus, it is concluded that the residual data has a normal distribution.

is applied by regressing residual absolute value against independent variable. In reference with Ghazali (2011:143), heteroscedasticity tendency is not found if the sig. value is greater than 0.05.

c. Heteroscedasticity Test

In statistical method, heteroscedasticity shows independent variables diffusion. Gletser Test

Table 3 Gletser Test

Model		T	Sig.
1	(Constant)	1.937	.056
	X1	.372	.711
	X2	-1.189	.238

Source: primary processed data with SPSS 22, 2017

Based on the table 3, All of the independent variable has sig. value greater than 0.05. Thereby, the regression model is free of heteroscedasticity tendency.

d. Linearity Test

It is performed to detect whether the model specification could be processed in linear form. If the sig. value on linearity is less than 0.05, then it is linear (Wiyono, 2011)

Table 4 Linearity Test

			Sig.
Y * X2 Between Groups (Combined)			.031
<b>Linearity</b>			.000
Deviation from Linearity			.315
			Sig.
Y *	Between	(Combined)	.000
X1	Groups	<b>Linearity</b>	.000
Deviation from Linearity			.322

Source: processed primary data with SPSS 22, 2017

Based on the table 4, it is obtained 0.000 of linear value, which is less than 0.05. Therefore, the

data obtained could be process in linear form.

**Goodness of Fit**

The accuracy of the estimation from multiple regression model is detected from its goodness of fit which consist of coefficient

determination, F-Test, and t- Test (Ghozali, 2011).

**a. Coefficient of Determinant**

The test result is shown in the table 5.

Table.5 Coefficient of Determinant Test Result

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.665 <sup>a</sup>	.443	.430	.51583

a. Predictors: (Constant), X2, X1

Source: processed primary data with SPSS 22, 2017.

Based on the amount of the coefficient determination output, the value of adjusted R square is 0.430. It is conceived that employee performance, which is explained by total quality management implementation and work motivation, has percentage of 43%

while other 57% is explained by other factors which are not included in this research.

**b. F Test**

Independent variables significantly effect to dependent variable if the sig. value of the SPSS output is less than (0.05).

Table 6 F Test Result

**F Test Result**

ANOVA <sup>a</sup>					
Model	Sum of Squares	Df	Mean Square	F	Sig.
1 Regression	18.379	2	9.190	34.537	.000 <sup>b</sup>
Residual	23.149	87	.266		
Total	41.528	89			

a. Predictors: (Constant), X2, X1

b. Dependent Variable: Y

Source: processed primary data with SPSS 22, 2017

From the table 6, the sig. value is 0.000, which is less than (0.05). Thereby, total quality management and work motivation simultaneously and significantly affect employee performance in Spinning 1 Production Department PT. ApacInti Corpora.

**c. t Test**

It is employed to determine the effect of total quality management implementation and work motivation on employee performance partially and significantly.



Table 7 T Test Result

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
	1 (Constant)	1.946	.663		
X1	.458	.068	.578	6.738	.000
X2	.197	.094	.181	2.104	.038

a. Dependent Variable: Y

Source: processed primary data with SPSS 22, 2017

From the table 7, the sig. value is 0.00 which is less than (0.05). It is conceived that total quality management implementation has significant and positive effect on employee performance. Meanwhile, the significant value for X2 variable is 0.038 which is less than (0.05), therefore, work motivation partially and significantly affects employee performance.

#### Regression Analysis

It is an analysis method which is employed in this study to know the influence of total quality management implementation and work motivation on employee performance in Spinning 1 Production Department PT. ApacInti Corpora.

Table 8 Multiple Regression Result

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
	1 (Constant)	1.946	.663		
X1	.458	.068	.578	6.738	.000
X2	.197	.094	.181	2.104	.038

a. Dependent Variable: Y

Source: processed primary data with SPSS 22, 2017

Based on standardized coefficient, the description of the regression model is below.

a. Constant value is 1.946, it shows positive correlation between independent variable to dependent variable. If total quality management implementation variable and

work motivation are constant then employee performance increase.

b. Total Quality Management Implementation is 0.578 of coefficient, it means that if TQM implementation

- increase while work motivation *ceteris paribus*, employee performance increase.
- c. Work Motivation is 0.181 of coefficient, it means that if work motivation increases while total quality management implementation *ceteris paribus*, employee performance increase.

### Research Implication

The research result reveals that total quality management implementation and work motivation have a significant impact on employee performance either partially or simultaneously. Total quality management is the dominant factor which affects employee performance. This implies that the practice of total quality management is one of management aspects which could lead employee performance to higher level. Referring to that, the management is expected to be able to notice on leadership and stable commitment in carrying out the real TQM practice. Other factors such as internal communication between manager and employees could build and improve the low engagement of other levels of management within the organizations. Work motivation is the second factor which affects employee performance in Spinning 1 Production Department of PT. ApacInti Corpora. This indicates that employee is not having a high inner motivation, so that management could give them outer motivation to strengthen the employee performance. Referring to the fact that employee performance is obtained from employee ability and motivation, it implies to the management to stimulate their employee motivation. This analysis has the same result with previous research conducted by Obiora (2010) that TQM affects motivation and performance. Second, John et.al (2012) that motivation affects to employee performance. Third, research conducted by Sadigloku and Zehir (2011) that TQM affects to employee performance, innovation performance, and firm performance. Fourth, Candratama (2011) that TQM affects employee performance. Along with that, this result support the basic

theory that the impact of TQM on performance includes achievement of quality in all sectors in company, refer to people, process, product and services prove the theory of Tjiptono and Anastasia (2003). Second, that Maslow motivation theory (Laegaard : 2006), that needs considered motivating because the tension triggers of attention, action and persistence.

### Conclusion

Based on the analysis result, it could be concluded that total quality management implementation and work motivation affect both partially and simultaneously, significantly and positively to employee performance. Total quality management implementation and work motivation in this study contributes 43% to employee performance, while other 57% factors are influenced by factors which are not studied in this research.

### Recommendations

A moderate level of contribution is obtained due to there was no separation in TQM implementation variable into several independent variables. This study examines on TQM as a one independent variable which affects employee performance. The future researcher is recommended to expand the relationship between TQM and employee performance through factor analysis so that the dominant factor and lowest factor will be detected by statistical analysis. Second, the future researcher is recommended to include other factors which affects employee performance, i.e. leadership style, working environment, company culture, career system, etc.

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