

# The Influence of Application of Total Quality Management towards Service Quality of Education (A Study Onvocational School (Smk) Negeri 2 Magetan)

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## Abstract

The school which should be highlighted that owns specific characteristics is Vocational High School (SMK). SMKN 2 Magetan is a school in Magetan city that has awareness to quality. It is proven by the effort to maintain well-organized quality of service on the school that make them achieved ISO 9001:2008 certification in 2009 from Germany regarding the school management system.

The objective of this research is to analyze and explain factors of Total Quality Management that influencing service quality of education. This study is explanatory research uses multiple linier regression analysis with backward method.

The result of this research shows that obsession with quality, and teamwork have a significant influence simultaneously towards quality of educational services. Focusing on customer does not have a significant influence towards quality of educational services partially. Obsession with quality has a positive and significant influence towards quality of educational services partially. Teamwork has a positive and significant influence towards quality of educational services partially. Involvement and empowerment of employees does not have a significant influence towards quality of educational services partially.

**Keywords:** Total Quality Management, obsession with quality, teamwork, service quality of education

## 1. Introduction

Education is one of the most important factors in improving the lives of human beings. Nowadays many schools are applying a strategic plan to implement quality-based services. According to Wijaya (2008) argues that "*mutu berarti pemecahan masalah untuk mencapai penyempurnaan terus-menerus*". In the concept of Total Quality Management (TQM), improvement or continuous improvement is what must be done to fulfill our customers' expectations. As noted by Sallis (1993) that word '*total*' in TQM emphasizes that everything and everybody within an organization must be involved in all activities to get continuous improvement. While the word '*management*' in TQM which is applied for everyone.

The strategy which is developed in applying Total Quality Management in education is an educational institution positions itself as services institution or in other words a service industry. It is an institution providing services in accordance with what the customer wants. According to Sallis (2010), "*Pelanggan dapat dibedakan menjadi pelanggan dalam dan pelanggan luar*". In the education life, internal-customer is everyone who manages the educational institutions themselves. Meanwhile the external-customer is the public including society, government, and industries.

The school which should be highlighted that owns specific characteristics is Vocational High School (SMK). SMK Negeri 2 Magetan which is an educational institution and Intermediate Vocational Training commits to provide competences which inherently remembered by students or alumnus so they are able to produce a mid-level skilled workers who are ready to work, self-employed or able to continue into higher education through continuous improvement in order to improve customers' satisfaction and to meet prescribed laws. It is proven by achieved ISO 9001:2008 certification in 2009 from Germany regarding the of the school management system. SMKN 2 Magetan have five competences, there are culinary, fashion design, beauty saloon, multimedia, and computer engineering & networking. For those competences, the school has worked with others to carry out testing for the students. For example in culinary, the school has collaborated with Imelda Restaurant; for beauty saloon, it cooperates with Jordi Magetan saloon; for multimedia, it cooperates with JTV Madiun. The effort conducted by SMKN 2 Magetan to prove the quality besides getting knowledge at school, students are also invited to study in great companies such as TVRI, Jawa Pos, Viva Cosmetic and Latulip.

Besides educating students, the teachers were also sent to carry out training to improve their abilities and skills. While improving the quality of the students and the employees as described above, there are obstacles faced by SMKN 2 Magetan, those are schools are expected to implement the entire ISO system that has been designed, but because it faced so many people in this school with different personalities and conditions so the system is not yet ideal to implemented maximumly, schools still require some rehabilitation and construction of schools infrastructure and there is one of skill competency namely computer engineering and networks are still not getting accreditation certificate from BAN-S/M (Profile Of SMKN 2 Magetan, 2010).

## 2. Conceptual Explanation

TQM is a continuation of the way management concepts to improve the quality of products and provide customer satisfaction, both in goods, services and other services, through quality control, quality assurance and total quality management (Sallis, 1993). In the context of education, quality control can be used as a benchmark to determine the reciprocation of the school. Quality assurance system, the quality of it is determined a starting job and when the job was done. It is necessary for the control mechanisms that all activities carried out in schools is conditioned in the standard process was ideal. With this quality assurance the school can convince the public that the school continues to provide the best service to all of its students. According to Sallis (2010), students are the main customers, and if the learning model does not meet the individual needs of each of them, then it means that the institution can not claim that the school has achieved integrated quality. Model TQM as a reinforcement of the concept of the development of culture of quality assurance for all employees at all levels and the levels have a similar motto, how they achieve a predetermined quality and able to make the customer happy and satisfied with the services they provide, through continuous improvement basis (Sallis, 1993).

### 2.1 Focusing On Customers Towards Service Quality of Education

According to Goetsch and Davis (1997), Focus On Customers in TQM, customers are both internal and external customers is the driver. External customers to determine the quality of products or services delivered to them, while the internal customers plays a major role in determining the quality of people, process, and environment-related products or services. Deming (1982), School that have quality is overall to give satisfaction to the customers, which means customer expectations and needs are met by the services provided by the school.

### 2.2 Obsession With Quality Towards Service Quality Of Education

According to Goetsch and Davis (1997), which is *Obsesi terhadap Kualitas yaitu alam organisasi yang menerapkan TQM, penentu akhir kualitas pelanggan internal dan eksternal. Dengan kualitas yang ditetapkan tersebut, organisasi harus terobsesi untuk memenuhi atau melebihi apa yang ditentukan tersebut. Hal ini berarti bahwa semua karyawan pada setiap level berusaha melaksanakan setiap aspek pekerjaannya berdasarkan perspektif "Bagaimana kita dapat melakukannya dengan lebih baik?"* Bila suatu organisasi terobsesi dengan kualitas, maka berlaku prinsip 'good enough is never good enough'. According to Sallis (1993), we have defined education as a provider of services. Its services include advice, tuition, assessment and guidance to pupils and students, their parents and sponsors. The customers-the stakeholders of the service are a very diverse group and need identifying. If quality is about meeting and exceeding customer needs and wants, it is important to be clear whose needs and wants we should be satisfying.

### 2.3 Teamwork Towards Service Quality Of Education

According to Goetsch and Davis (1997), *Kerjasama Tim (Teamwork) adalah dalam organisasi yang dikelola secara tradisional seringkali diciptakan persaingan antar departemen yang ada dalam organisasi tersebut agar daya saingnya terdongkrak. Sementara itu, dalam organisasi yang menerapkan TQM, kerjasama tim, kemitraan, dan hubungan dijalin dan dibina, baik antar karyawan perusahaan maupun dengan pemasok, lembaga-lembaga pemerintah, dan masyarakat sekitarnya.* The above matters in line with the concept of TQM was also expressed by agency International Standard Organization (ISO), which states that: "TQM is a management approach of an organization, centered on quality, based on the participation of all its members and aiming at long-term success through customer satisfaction and benefits to all members of the organization and to society.

### 2.4 Involvement And Empowerment Of Employees Towards Service Quality Of Education

According to The Federal Quality Institute (1990), The FQI further states that TQM involves top executives, managers, and employees in creating a culture of excellence that emphasizes, among others, is the training and recognition employee and Employee empowerment and teamwork, so to achieve the educational services quality through the application of Total Quality Management is supposed to involve and empower employees in the school environment. In addition, according to M.N. Nasution (2001) there are 4 main principles of TQM, one of which is respect for every person, an employee resource organization's most valuable. Therefore everyone in an organization are treated well and given the opportunity to get involved and participate directly in the decision-making team.

## 3. Statement of Problem

Education is one of the most important factors in improving the lives of human beings. Schools as institutions of education providers must be able to guarantee the quality improvement efforts through educational services that are able to face global challenges. In the concept of Total Quality Management (TQM), improvement or continuous improvement is what must be done to fulfill our customers' expectations. The strategy which is developed in applying Total Quality Management in education is an educational institution positions itself as services institution or in other words a service industry. SMKN 2 Magetan very aware of that change, adjustment and reforms undertaken should focus on building a good education and quality. While improving the quality of

schools as described above, there are some obstacles faced by SMKN 2 Magetan. So, the problems can be stated as what the factors influencing service quality in SMKN 2 Magetan?

#### 4. Methodology

This research is quantitative descriptive research uses multiple linear regression analysis with backward method. Dependent variable of this research is service quality of education, and independent variables are total quality management consist of focusing on customers, obsession on the quality, teamwork and involvement and empowerment of employee. The data used a questionnaire and the other using the supporting data in the form of observations, interviews and documentation.

To see the influence of focusing on customers, obsession on the quality, teamwork and involvement and empowerment of employee toward service quality of education, used multiple linear regression analysis. In general, the form of multiple linear regression equation is:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon \dots\dots\dots(1)$$

Describe:

- Y = Service Quality of Education
- X1 = focusing on customers
- X2 = obsession on the quality
- X3 = teamwork
- X4 = involvement and empowerment of employee
- $\beta$  = parameter
- $\varepsilon$  = disturbance

Many explanatory variables cause problems when there is no strong partial correlation and not give contribution (significant influence) toward change the independent variable. Therefore, in this research used method to select the explanatory variables entered into the regression equation in order to obtain the best model, namely the Backward Elimination Procedure. The Backward Elimination Procedure begins with the largest regression using all the explanatory variables and gradually eliminates the explanatory variables in the regression equation to achieve a decision to use the best models obtained.

##### 4.1. Feasibility Testing of Regression Equations (R<sup>2</sup>)

The coefficient of determination (R<sup>2</sup>) was essentially measures how far the model's ability to explain variation in the dependent variable. The coefficient of determination is zero to one. Small value of R<sup>2</sup> which means the ability of the independent variables in explaining the variation in the dependent variable is very limited. Value close to one means that the independent variables give almost all the information needed to predict the variation in the dependent variable.

##### 4.2. Partial Coefficient Regression Test (t test)

Partial coefficient regression testing is used to determine whether each independent variable individually have a significant influence on the dependent variable or not. To test the influence partially used t-test that is *p-value* < 0.05.

##### 4.3. Overall Coefficient Regression Test (F test)

Overall coefficient regression testing is conducted to see the influence of independent variables on the dependent variable as a whole (simultaneously). To test the simultaneously influence used F-test that is *p-value* < 0.05.

#### 5. Result And Discuss

##### 5.1. Result

Based on the results of data processing by using SPSS software obtained summary as follows:

Table 1. Summary of Regression Analysis Result

Relation among variables		Coefficient (B)	T <sub>statistic</sub>	p-value	Decision
Independent variable	Dependent variable				
Obsession with quality (X <sub>2</sub> )	Service Quality of Education (Y)	0.551	2.890	0,005	Significant
Teamwork (X <sub>3</sub> )		0.633	3.753	0,000	Significant
Constant	= 25.737				
R	= 0,722				
R <sup>2</sup>	=0,522				
Adjusted R <sup>2</sup>	= 0,506				
F <sub>statistic</sub>	= 33,816				
Sig.F	= 0,000				
t table	= 1,998				
α	= 0,05				

Source: Researcher, 2013 (data processed)

Regression models using backward method were obtained based on the following table:

$$Y = 25,737 + 0,551 X_2 + 0,633 X_3$$

Where:

Y : Service Quality of Education

X<sub>2</sub> : Obsession on Quality

X<sub>3</sub> : Teamwork

#### 5.1.1. Feasibility Testing of Regression Equations

From the results of regression of the influence of focusing on customer, obsession with quality, teamwork and involvement and empowerment of employee toward service quality of education in SMKN 2 Magetan, obtained R<sup>2</sup> values 0.522. It means that variations in service quality, explained of 52.2 percent by the explanatory variables, and the remainder are explained by other variables outside the model.

#### 5.1.2. Partial Coefficient Regression Test (t test)

Based on the table 1 it can be seen that the variable of obsession with quality and teamwork have a significant influence toward service quality of education. It said have a significant influence partially because of  $p\text{-value} < 0.05$ . The  $p\text{-value}$  of obsession with quality variable is 0.005, and  $p\text{-value}$  of teamwork is 0.000. While the variable of focusing on customer and involvement and empowerment of employee have not significant influence partially toward service quality of education because of focusing on customer and involvement and empowerment of employee variable was excluded from the model.

#### 5.1.3. Overall Coefficient Regression Test (F test)

From the result of SPSS processing, can be seen that significance F is 0.000 less than 0.05. It means that, variables of focusing on customers, obsession on the quality, teamwork and involvement and empowerment of employee toward service quality of education as a whole (simultaneously).

### 5.2. Discuss

#### 5.2.1 Focus On The Customer and Service Quality Of Education

Based on the results of multiple linear regression analysis, it can be seen that no significant influence between focus on the customer toward service quality of education partially at 0,158, for the sig 0,414 (sig prob. <0,05).

Because there are some reasons that have not been executed or done maximum by the SMKN 2 Magetan, i.e. the availability of a supportive learning environment for students still felt less because the school is still in need of reconstruction of their infrastructures. Then for the learning and teaching strategies appropriate to the purpose, SMKN 2 Magetan still need RPP (lesson plan) according to SI (content standards), SKL (competency standards) and KTSP guide. The knowledge of student expectations may also help teachers to design their teaching programmes. That student expectations in general, and in particular, in relation to academic aspects of higher education services such as teaching quality, teaching methods, and course content have been quite stable over time (Sander et al., 2000 in Faranak and Behnaz, 2011).

This finding is not the same as the results of research conducted by Darmadji (2008), which in the process of quality education involved a variety of inputs such as teaching materials, teaching methods, school facilities, administrative support and other resources as well as the creation of a conducive environment. While in SMKN 2 Magetan is still not maximal in terms of preparation of teaching materials and school facilities. This is not accordance with Gerson (2002), states "Internal quality measurement is essential. But all that means nothing if the

customer is not satisfied with the given. To make measurements more meaningful and appropriate quality, ask your customers what they want, which could satisfy their". Then the results of this research does not support the results of research conducted by Astri Yulia (2011) and Sri Wartini (2007), which said that variable focus on customer that influence to service quality partially.

### **5.2.2 Obsession On Quality and Service Quality**

Based on the results of multiple linear regression analysis, it can be seen that it is positive and significant influence between obsession on quality toward service quality of education partially at 0,551 and for the sig 0,005 (sig prob. 0,05). But this research is not the same as the results of research conducted by Sri Wartini (2007) and Novi and Wahyu (2005) which said that no significant effect on the quality orientation for Excellent Service.

Based on the research of data presentation, the vision and mission schools in the formulation and preparation involves principals, teachers, staff, school committee and community leaders then the vision, mission of the school are socialized to all citizens of the school.

This is consistent with the results of research conducted by Darmadji (2008) which states that the basis of quality indicators of institutional quality school or at least reflected the vision, mission and goals of the school. Then, relation to the excellent program, there are about 160-170 students in this year was positively received in the industry/ company, and besides the school also sending their students to work in abroad. Then, the school attempted effort/try to send the teachers or employees to participate in education and training in their respective fields, and then education and training on ISO. Winsted (2000, in Faranak and Behnaz, 2011) maintain that, "service providers will only be able to deliver service encounters that will satisfy customers if they know what their customers expect in general, and if they understand the critical employee behaviors and attitudes from a customer's point of view in particular. If teachers know what their students expect, they may be able to adapt their behavior to their students' underlying expectations, which should have a positive impact on their perceived service quality and their levels of satisfaction.

Then, school principals also constantly monitor the performance of employees and teachers. This is also consistent with the results of research conducted by Darmadji (2008) which states that the monitoring / supervision and evaluation is also conducted to ensure whether the program has been planned to be implemented in accordance with the purpose.

### **5.2.3 Teamwork and Service Quality Of Education**

Based on the results of multiple linear regression analysis, it can be seen that it is positive and significant influence between teamwork toward service quality of education partially at 0,633 and for the sig 0,000 (sig prob. 0,05). This research is the same as the results of research conducted by Sri Wartini (2007) which said that there is a significant influence on teamwork toward excellent service.

Based on the data presentation of research, in terms of respect and support practices that work well in all components of the school when there are an events in SMKN 2 Magetan, in the events the committee preparing the events always coordinate with the teacher as the supervisor of the events. This is consistent with some of the benefits of the application of Total Quality Management to the organization by MN Nasution (2001) is *sikap pekerja yang baik akan menimbulkan partisipasi dan komitmen pekerja pada kualitas, rasa bangga bekerja sehingga akan bekerja secara optimal, perasaan tanggung jawab untuk meningkatkan kinerja organisasi*. As for the party of their own employees and teachers in terms of team collaboration through meetings, so from a variety of existing problems are discussed and then taken a decision by top management of the principals, so that the decision is not directly decided by the school principal.

The above matters in line with the concept of TQM was also expressed by agency International Standard Organization (ISO) (2008), which states that: TQM is a management approach of an organization, centered on quality, based on the participation of all its members and aiming at long- term success through customer satisfaction and benefits to all members of the organization and to society.

### **5.2.4 Involvement And Empowerment Of Employee and Service Quality Of Education**

Based on the results of multiple linear regression analysis, it can be seen that no significant influence between involvement and empowerment of employee toward service quality of education partially at 0,128, for the sig 0,644 (sig prob. <0,05). This research is not the same as the results of research conducted by Sri Wartini (2007) which said that there is significant influence involvement and empowerment of employee for Excellent Service.

Based on the data presentation of the research, the school provides a suggestion box that can be filled by the employees and teachers and by students to be able to provide feedback to the school, but teachers / staffs and students rarely take advantage to the maximum of the suggestion box.

Staff and teachers are also required to follow a number of education and training in accordance with their respective areas of competence or other required fields, but not so routine to be done and one librarians has not a training certificate of library. And then, schools still need to program an 18 employees continuous into higher education with which they do in the field of office administration / accounting / economics / computer.



According to The Federal Quality Institute (1990), The FQI further states that TQM involves top executives, managers, and employees in creating a culture of excellence that emphasizes, among others, is the training and recognition employee and Employee empowerment and teamwork. While the results of the study by Farhana, Tahir and Sara (2011) stated that the teachers who are receiving training during the job are more positive in their attitude, more effectively teaching and imparting quality education. In addition, according to M.N. Nasution (2001) is respect for every person, an employee resource organization's most valuable. Therefore everyone in an organization are treated well and given the opportunity to get involved and participate directly in the decision-making team.

But the statement of FQI and MN Nasution and research results of Farhana, Tahir and Sara above are not accordance with what is happening in SMKN 2 Magetan, due to education and training in accordance with their respective areas of competence or other required fields have not been so routine to be done.

## CONCLUSION

The result of this research shows that the factors influencing service quality in Vocational High School (SMKN) 2 Magetan are obsession with quality ( $X_2$ ), and teamwork ( $X_3$ ). While the variables of focusing On Customers and involvement and empowerment of employee, are not influencing service quality.

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