

TOTAL QUALITY MANAGEMENT EFFECT ON OPERATING PERFORMANCE TRANSPORTATION COMPANY OF BUS IN THREE CITY BANDUNG, CIREBON, AND TASIKMALAYA WEST JAVA PROVINCE

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ABSTRACT

To determine the influence of the application of Total Quality Management (TQM) in public bus transportation services company which includes: focus on the customer, continuous improvement, and overall involvement of the company's operational performance in creating competitive advantage. Research carried out this application to the company's public bus transportation services in Bandung, Tasikmalaya and Cirebon West Java province. The data taken was done by using surveys and questionnaires. As for the total sample of 58 respondents with a simple random sampling method. Respondents were drawn is the operations manager, marketing manager, finance manager and several others which include: staff marketing, operations, and finance department. For data analysis and hypothesis testing used path analysis models with SPSS. From the calculation, that there is the effect of the application of Total Quality Management (TQM), which includes a focus on the customer, continuous improvement, and involvement as a whole, either partially or collectively have a significant positive effect on operating performance in creating a competitive advantage Public bus transportation services company in West Java.

Keywords: Total Quality Management, The company's operating performance, General Buses

I. INTRODUCTION

Indonesian society needs to land transport turns continuously increases with the rate of population growth today that it will increase the demand for ground transportation services in the form of the number of bus passengers who must be served by the bus company. According to the Ministry of Transportation, the average growth in the number of inter-provincial bus companies increased by 2.87%; from 2006 to 2010 and the number of inter-provincial bus increased by 2:16% in the same period (source Ministry nexus 2012).

West Java is known as one of the provinces of considerable potential in the economic sector, and has the third largest population in Indonesia is very caring and concerned with the problem of land transport are public buses that are currently widely used as one means of transportation popular demand by the public in connecting the cities in West Java, and that are outside of West Java. The existence of a large population of this should be followed by an increase in facilities and infrastructure, especially in terms of land freight transport. Large residential population in West Java is mainly located in cities like Bandung, Tasikmalaya, Cirebon, will result in movement there is also greater. The population has socio-economic characteristics are different, as it also different

perceptions in determining the mode of transportation. Land transportation services by public transport in West Java is not currently meet the needs of the community that there are many private vehicles are used as a substitute in meeting those needs.

At this time of transportation in West Java to service the cities, especially cities such as Bandung Tasikmalaya, Cirebon are supported by the public transport system is one such bus. Some things that appear in bus services in cities is the age of the vehicle is quite old, no timetable fixed, low rates, excess passengers during peak hours and other services that are less able to provide more value for the users of transport services this , Evaluation of the performance of services, as the evaluation of efficiency and effectiveness, will provide some important things that guide the downward trend of the service, as information in decision-making and help improve the company's performance as expected.

The public bus route between the city and the city as a public transport operating in the cities is seen to represent a pattern of public bus services. This can be said because it is motivated by a growing issue that the drop in the number of bus passengers common in West Java, especially for some of the cities such as caused by a decrease in the level of service, as well as operating time bus longer than other public transport, the inconvenience factor and security and also the fact the increasing number of alternative options other transport. Thus the principle of total quality management (TQM) to the company's passenger bus transportation services are: customer focus, continuous improvement, and overall involvement of the company's operational performance in creating competitive advantage is indispensable.

Relating to the application of TQM, Brah et al. (2002) suggested that operational performance is a measure of the main (primary measure) due to the performance of a direct impact caused by the activities undertaken during the implementation of TQM, in which aspects of operational performance include: relationships with suppliers, process, deployment policy, relations with employee, and customer relationships. Service company is a company that provides services for customers by offering convenience, freedom, safety or comfort. Services generally include transportation, care, healthcare, financial services (banking, insurance, accounting), personal services (physical training, hairdressing) and legal services (Blocher et al., 2000: 6).

II. THEORETICAL BASIS

2.1. Total Quality Management (TQM)

Changes in technology, transportation, and communications lead managers need better information. This information is used by the manager so that the company can compete and focus on time, quality, and efficiency. Management accounting provides information about the cost and value of the product or service, so that managers can

focus on customer value (customer value), Total Quality Management (TQM), and competition based on time (Hansen & Mowen, 2006: 8 & 18).

Total Quality Management (TQM) has attracted the attention of the business and academic world in recent years. In the early 1980s, the Japanese company managed to dominate the world market share. Seeing this, other companies tried to find out and learn the secret that success. This emphasis on quality management (quality management) is the key to the Japanese firm in the face of global competition.

Talha (2004) proposed definition of TQM is as follows: "TQM Refers to the broad set of management and control processes designed to focus an entire organization and all of its employees on providing products or services that do the best possible job of satisfying the customer".

Basic principles of Total Quality Management (TQM)

Blocher et al . (2000 : 209) argues basically the core principle of TQM is a process that focuses on the satisfaction of customers , strive to make improvements on an ongoing basis , and involves the entire workforce . Rao et al . (1996 : 20) also suggests three basic things that is key to successful implementation of TQM , namely : (1). Customer focus ; the value of the work done is determined by the customer; (2). Continual improvement ; the quality of work can always be improved and this can be done Gradually or through breakthroughs ; (3). Total participation ; the person closest to the task is most qualified to suggest improved ways of working . That person should be encouraged to the make and implement Reviews those suggestions as part of his or her daily works.

2.1.1 . Focus on the Customer (Customer Focus)

Total Quality Management (TQM) is a customer in the context of internal customers and external customers . Internal customers are employees or part / next department is involved in the production process , while external customers are people or companies that buy and use the company's products. The customer is an important factor for any company , where one of the company's main goal is customer satisfaction, which ultimately can ensure the profitability, viability of the company, as well as the achievement of competitive advantage . All actions taken to know , understand , meet customer needs and expectations is to create customer satisfaction (Tsang and Antony, 2001). Needs and customer satisfaction should always be considered employees. Therefore it is very important to identify the needs and the level of customer satisfaction (Martinez - Lorente and Martinez -Costa , 2004).

2.1.2. Sustainable improvement (Continuous Improvement)

Total Quality Management (TQM) requires an endless process called continuous improvement / continuous (continuous improvement), where perfection is never obtained but always sought. Japanese society used the word "kaizen" to describe this continuous improvement process (Render & Heizer, 2001: 98).

Tenner & Detoro (1992: 32) argues that: "The concept of continuous improvement is built on the premise that work is the result of a series of interrelated steps and activities that result in an output." The statement explained that the concept of continuous improvement built on the premise that the work performed as a result of a series of measures and activities that are interconnected to produce the final result (product).

Continuous improvement of quality of products / services is one important dimension of TQM program. Continuous improvement can be used to eliminate products that fail, reducing the time associated with excessive variability and reduce / cut overtime production / operations. Many companies are focusing all aspects of their operations and functional areas for the purpose of continuously improve the company's performance and reduce non-value added activities to a minimum (Hyland et al. In Tsang and Antony, 2001)

2.1.3 Involvement in Comprehensive (Total Involvement)

Tenner & Detoro (1992 : 33) suggests the involvement of a whole (total involvement) starts with leadership / management support (leadership / top management support) enabled and includes businesses that utilize the capabilities of the employees within a company in order to achieve excellence compete (empowered work force) . Employees at all levels are empowered to improve output or work through cooperation in a flexible working structure to solve problems , improve processes and satisfy customers. Suppliers (supplier quality) is also included in the total involvement and long-term partner that works with employees to achieve the company's success .

2.2 . The operational performance of the company

The company's performance is a display state as a whole over the company during a certain period of time , the result or achievement is affected by the operations of the company in utilizing the resources - resources that dimiliki. Kinerja is a term generally used for part or all of the actions or activities of an organization in a period with reference to the number of standards such as cost past or projected, on the basis of efficiency, accountability or the accountability of management and the like (Srimindarti , 2004) .

III . RESEARCH METHODS

3.1 Research Object

The object of this research is TQM which includes a focus on the customer , continuous improvement, and overall engagement and operational performance of the company, while the research subject is a company engaged in the sector of public bus transportation services in West Java.

3.2 Research Design

This type of research is a research verification. The method used is explanatory survey . Horizon is a cross sectional time. The unit of analysis is the company's public bus transportation services in West Java. Respondents of this research is the manager of the company is the operations manager , human resources manager/personnel, finance manager and marketing manager.

3.3 Variable Operationalization

The variables in this study were divided exogenous variables , namely the application of TQM by using the basic principles that are key to successful implementation of TQM is focused on the customer , continuous improvement, and engagement overall (Blocher et al . , 2000; Tenner & Detoro , 1992 & Rao et al . , 1996) as sub-variables and endogenous variables that the company's operational performance , as measured by instruments developed by Brah et al . (2000) and using a Likert scale.

3.4 . Population and Sample Research

The population is all public bus transportation services company in West Java as many as 116 companies . Next will be chosen sample , the method used is simple random sampling by means of a lottery . The minimum sample size is determined by the formula Yamane , who obtained a minimum sample of 58 companies .

3.5. Data Collection Procedures

Data collected through questionnaires , interviews , and literature .

3.6. Metode Data Analysis

3.6.1. Method of Testing Data

The primary data which is an instrument used in this study need to be tested for validity and reliability. Validity test using Spearman Rank correlation technique , while the reliability test using the Spearman - Brown .

3.6.2. Data Transformation Method

Data obtained through questionnaires in the form of the ordinal scale data to be analyzed statistically, these data should be raised or transformed into an interval scale using Method of Successive Interval (MSI).

3.6.3 Data Analysis Methods

The research hypothesis being tested is twofold : simultaneous test using F test and partial test by using t-test.

Test simultaneously

$H_0 : \rho_{xyi} = 0$

$i = 1, 2, 3$

The application of TQM which includes a focus on the customer , continuous improvement, and involvement thoroughly together does not affect the company's operational performance of public bus transportation services in three cities Bandung, Cirebon, and Tasikmalaya West Java province.

$H_1 : \text{At least there is a } \rho_{xyi} \neq 0$

$i = 1, 2, 3$ The application of TQM which includes a focus on the customer , continuous improvement, and involvement thoroughly together positive effect on the company's operational performance of public bus transportation services in three cities Bandung, Cirebon, and Tasikmalaya West Java province.

Partial test

$H_0 : \rho_{xyi} \leq 0$

$i = 1, 2, 3$ The application of TQM which includes a focus on the customer , continuous improvement, and overall involvement partially no effect on the company's operational performance of public bus transportation services in Bandung, Cirebon, and Tasikmalaya West Java province.

$H_1 : \rho_{xyi} > 0$

$i = 1, 2, 3$ The application of TQM which includes a focus on the customer , continuous improvement, and overall involvement partially positive effect on the company's operational performance of public bus transportation services in Bandung, Cirebon, and Tasikmalaya West Java province.

Criteria F test and t test was when F hitung or t hitung $>$ F tabel or t tabel then H_0 is rejected , and if F hitung or t hitung \leq F tabel or t tabel then H_0 is accepted , where F tabel = $F_{\alpha ; k ;$

$(n - k - 1) ; \alpha = 5 \% (0.05) .$

Hypotheses are tested and analyzed by using path analysis (path analysis) .

Furthermore, the magnitude of the effect of exogenous variables on endogenous

variables is calculated by adding the direct and indirect influence of each exogenous variable. In its application, all the tests and calculations will be performed with the aid of a computer program SPSS for Windows.

IV . RESULTS AND DISCUSSION

4.1 Testing Data

Results of testing the validity of the question items sub variable focus on customers, sub variable continuous improvement, sub variable engagement overall, and variable operational performance services company public bus transportation in Bandung, Cirebon, and Tasikmalaya West Java province by using correlation Rank Spearman shows all items of these questions are valid and can be forwarded to the reliability test.

Reliability test results to the question items sub variable focus on customers, sub variable continuous improvement, sub variable engagement overall, and variable operational performance services company public bus transportation in Bandung, Cirebon, and Tasikmalaya West Java province using techniques halved or split-half method of Spearman - Brown shows all items of these questions is reliable .

4.2. Hypothesis Testing

Hypothesis testing together with using the F test stated hypothesis nul (Ho) is rejected, meaning that there is a positive effect of the application of Total Quality Management (TQM) jointly against the company's operational performance services public bus transportation in West Java hypothesis testing is partially degan t test declared null hypothesis (Ho) is rejected, meaning that there is a positive effect of the application of Total Quality Management (TQM) partially on the company's operational performance of public bus transportation services in Bandung, Cirebon, and Tasikmalaya West Java province.

4.3 Effect of Application of Total Quality Management (TQM) to the Company Operational Performance

4.3.1. Effect of application of Total Quality Management(TQM) Collectively Equal to the

Company's Operational Performance

The magnitude of the direct and indirect effects of sub variable focus on customers (X1), continuous improvement (X2), and me-thorough involvement (X3) to the company's operational performance (Y) seen in this table.

Direct Effect Indirect Effect Total Effect

X1 X2 X3 Sub Total

X1 0,687 + + 0,313 + 0,242 + 0,279 + 0,482

X2 0,691 + 0,313 + + 0,309 + 0,278 + 0,501

$X_3 \ 0,758 + 0,242 + 0,309 + + 0,276 + 0,517$

Effect of X_1 , X_2 , X_3 to Y 0,510

Other variables that influence Not Studied for Y 0. 490. Total Effect 1.0000

The above table shows that the better implementation of TQM in the company then it will result in increasing the performance of the company's operations as seen from the timeliness of delivery of the supplier, timeliness of delivery of the customer, the company's reputation better , employee productivity is further improved, motivation and employee satisfaction larger , lower employee turnover, decreased absenteeism, customer satisfaction, loyalty and repurchase is further improved, as well as customer complaints decreased .

The results are consistent with research conducted Brah (2000) that the application of TQM can improve performance service company in Singapore. Results of this study are also in accordance with the opinion expressed by Juran, Deming, Feigenbaum & Crosby in Roethlein et al. (2002) that increased the quality is closely linked to the performance of the company. A company focused on quality management will ultimately increase the quality of performance and profitability of the company, also according to opinions expressed by Burril & Ledolter (1999: 61) that companies that emphasize the quality will be able to lower costs and gain greater subscriber satisfaction. In addition the results of this study are also in accordance with the opinion expressed by Bricknell (1996) that the company implement TQM will obtain benefits such as lower costs, greater efficiency, market share increases, motivation and employee satisfaction are increased, as well as reputation better. The same thing with the proposed Sharma (2000: 30) that TQM affect the high productivity, low cost, low price, market share and profit increases, customer satisfaction, loyalty, repurchase, market share increases, a higher profit and a high price for a quality product on the basis of values.

At the company's services, human resources is a factor that plays an important role in supporting the creation of a quality service to the customers. The development and appreciation of the values of the beginning of an exemplary employer. Boss is expected to generate enthusiasm, and creates a work atmosphere and cooperation that generate synergies.

System of rewards and recognition for employee performance is a means to steer employee behavior to the behavior that is valued and recognized by the company. Awards to attract the attention of employees and inform or remind the importance of something that is rewarded compared to the others, the award also increased employee motivation against measures of performance, which can help employees to allocate time and effort employees. High performance can be achieved if the application of TQM is

used along with a reward system. Design compensation systems to manager may give a sense of satisfaction or fair and better compensation to managers can also motivate them to improve performance (Retno Kurnianingsih & Nur Indriantoro, 2001).

3.3.2 The effect of the application of Total Quality Management (TQM) partially to the company's operational performance

• Focus on Customers

Large direct and indirect influence on the customer focus of the company's operational performance is expressed in the following :

Sub influence Variable Variable X1 to Y Value Coefficient

Direct Impact :

$$PYX1 \times r_{X1Y} = 0.691 \times 0.691$$

Indirect influence :

- Through X2 : $X \text{ PYX1 } r_{X1X2} \times \text{PYX2} = 0.691 \times 0.5910 \times 0.758$

- Through X3 : $X \text{ PYX1 } r_{X1X3} \times \text{PYX3} = 0.687 \times 0.671 \times 0.3936$

Total Effect X1 to Y 0.11167

The magnitude of the effect of the sub variable focus on the customer to the company's operational performance of 0.11167 or 11.17%. This means that if companies focus on the customer, namely: customer complaints submitted to the manager, customer complaints as a basis for determining the needs of customers, customer needs as the basis for the measurement of quality, caring managers on customer satisfaction, establish communication with the customer, and the design of new services have been studied repeated before it is applied, it will increase the company's operational performance.

This is in accordance with the opinion expressed by Tsang and Antony (2001) that the customer is an important factor for any company, in which one of the main objectives of the company is customer satisfaction, which in turn can ensure the profitability and viability of the company. In addition, research is also in accordance with the opinion of Fandy Tjiptono & Anastasia Diana (2000: 7) that companies that pay attention to customer satisfaction will get some benefits, such as: a company's reputation is increasingly positive, encourage the creation of customer loyalty, the creation of recommendation by word of mouth, increase the volume of sales and profits etc.

Improvements in Sustainable

Large direct and indirect effects of continuous improvement of the operational performance of the company is :

Sub influence Variable Variable X2 to Y Value Coefficient

Direct Impact:

$$PYX2 \times PYX2 = 0.2713 \times 0.2713$$

Indirect influence :

- Through X1 : $PYX2 \times r_{X1X2} \times PYX1 = 0.2713 \times 0.5657 \times 0.691$

- Through X3 : $X \text{ PYX2 } r_{X2X3} \times PYX3 = 0.2713 \times 0.5822 \times 0.758$

Total Effect X2 to Y 0.1349

The magnitude of these effects is equal 0.1349 or 13.49% for the sub-variable continuous improvement (X2). Furthermore, if the company's continual improvement is by monitoring the activity / activities of another company, the existence of a program to reduce order fulfillment time, conduct an inspection for quality control, the program to determine the time and expense that are not useful, the instruction process is standardized, and the use of statistical control charts, the operational performance of the company will increase.

Furthermore, it is also presented in accordance with this research that Hyland et al. in Tsang and Antony (2001) that continuous improvement can be used to eliminate products that fail, reducing the time associated with excessive variability and reduce / cut excess operating time, and reducing the non-value added activities to a minimum.

For these variables still sub-optimal seen that companies in the monitoring or study the activity of other companies. This may be because the cost of doing this is huge. The company also has not seen the optimal use of programs that can reduce order fulfillment time. This is certainly an impact on the timeliness of delivery customers ultimately impact on customer satisfaction. Another thing that may cause the effect of variable sub is smaller because companies are less stringent in the pass scrutiny, as was the lack of inspection. Seen that employees are using the SOP, but the company must inspect the field, because sometimes employees do the work in accordance with the custom of course, so if there are extraordinary things that are not in accordance with normal occurrence, they do not know the procedure quickly. Therefore, companies should pay more attention to providing training to employees.

• **Involvement in the Comprehensive**

Large direct and indirect influence on the overall involvement of the operational performance of the company is :

Sub influence of the variable Y X3 Variable Coefficient Value

Direct Impact :

$$PYX3 \times PYX3 = 0.758 \times 0.758$$

Indirect influence :

- Through X1 : $PYX3 \times r_{X1X3} \times PYX1 = 0.758 \times 0.574 \times 0.687$

- Through X2 : $X \text{ PYX3 } r_{X2X3} \times PYX2 = 0.758 \times 0.574 \times 0.2713$

Total Effect X3 to Y 0.4618

The magnitude of the effect of sub-variables on the overall involvement of the company's operational performance variable is equal 0.4618 or 46.18%. This means that if a company's involvement, the overall operational performance of the company will increase.

This is in accordance with the opinions expressed Burril & Ledolter (1999: 61-64) on Japanese Strategy that the improvement of quality can lead to lower production costs. Most failures in the implementation of TQM is caused by top management who are not actively leading the movement TQM or even against it (Soewarso Hardjosoedarmo (1999: 35). The company requires strong leadership that is supported by a touch of emotion, because the company not only manage financially but also manage "the bottom line" or employees.

This is in accordance with the opinion expressed by Dimitriades (2001) and Goetsch and Davis (2000: 202) that the empowerment of employees will be able to increase the motivation and productivity of employees, and in accordance with the opinion of Quinn Mills in Clutterback & Kernaghan (2003: 20 -23) that companies that empower employees to be successful in increasing employee productivity, reducing employee turnover, decrease the number of employee absenteeism, and increase the number of customer requests. Empowerment can encourage employees to seek new ways of providing services. This is in accordance with the opinion of Keng (2000: 45) that the presence of Quality Control, it will be able to increase the motivation of employees, improve the quality of products and services produced and others.

However, for transportation services company looks not look good relationship with suppliers better than cost reduction , there seems to be a tendency company gets a good supply of quality but at a lower price and ignoring the good relations that have been forged . In addition the company also failed to give relief to the supplier. It supports the views expressed Zineldin & Fonsson in Tsang and Antony (2001) and Wong in Brah (2002) that the management and supplier development services company is not as important in manufacturing companies, and there are still companies that do not recognize the role of supplier performance against performance the quality of the company and contribution to customer satisfaction .

V. CONCLUSIONS AND RECOMMENDATIONS

5.1. CONCLUSIONS

The conclusion that can be drawn from the results of this study are as follows :

1. Application of Total Quality Management (TQM), which includes a focus on the customer , continuous improvement, and involvement thoroughly together have a significant positive effect on the company's operational performance of public bus

transportation services in three city Bandung, Cirebon, and Tasikmalaya West Java province.

2. Application of Total Quality Management (TQM), which includes a focus on the customer, continuous improvement, and overall involvement partially have a significant positive effect on the company's operational performance of public bus transportation services in three city Bandung, Cirebon, and Tasikmalaya West Java province.

3. Application of Total Quality Management (TQM), which includes a focus on the customer, continuous improvement, and overall engagement simultaneously have a significant positive effect on the company's operational performance of public bus transportation services in three city Bandung, Cirebon, and Tasikmalaya West Java province.

BIBLIOGRAPHY

- Abubakar, dkk. 1996. *Towards Traffic and Road Transportation*. Jakarta Yang tongue.
- Blocher, Edward J., Chen, H. & Lin Kung, Thomas W. 2000. *Cost Management: the Strategic pressure*. Translation A. Susty Ambarriani. Jakarta: Salemba Four.
- Brah, Shaukat A., Tee, Serene S.L. & Rao, B. Madhu. 2002. *Relationship between TQM and Performance of the Singapore Companies*. *International Journal of Reliability Management* 19: 356-379.
- Brah, Shaukat A., Wong, Jen Li. & Rao, B. Madhu. 2000. *TQM and Business Performance in the Services Sector: A Singapore Study*. *International Journal of Operations & Production Management* 20: 1293-1312.
- Bricknell, Graham. 1996. *Total Quality Revisited*. *Management Services* 40: 18-20.
- Burril, Claude W. & Ledolter, Johannes. 1999. *Achieving Quality through Continual Improvement*. New York: John Wiley & Sons Inc.
- Clutterbuck, David & Kernaghan, Susan. 2003. *The Power of Empowerment: Release the Hidden Talents of your Employees*. Translation Bern. Hidayat. Jakarta: PT Bhuana Popular Science.
- Dimitriadis, Zoe S. 2001. *Empowerment in Total Quality: Designing and Implementing an Effective Employee Decision-Making Strategies*. *Quality Management Journal* 8:19- 28.
- Directorate General of Land Transportation. Director General of Land Transportation. 1996. *The decision of the Director General of Land Transportation: 687 / AJ.206 / DRJD / 2002 on Technical Guidelines for Implementation Public passenger transport in the region remains and Urban Route Regularly*. Department of Transportation, Jakarta.
- Dwi Duma CR. 2012. *The final task. S Evaluation of Effectiveness Service Bus DAMRI*

- Evaluation Service Level Bus DAMRI Cicaheum-Cibeureum in Bandung Journal of Urban and Regional Planning A SAPPK V1N2 Cicaheum-Cibeureum in Bandung.
- Fandy Tjiptono and Anastasia Diana. 2000. Total Quality Management. Yogyakarta: Andy.
- Flynn, Barbara B., Schroeder, Roger G. & Sakakibara, Sadao. 1995. The Impact of Quality Management Practices on Performance and Competitive Advantage. Decision Sciences Giannopoulos.1989. Bus Planning and Operation in Urban Areas: A practical Guide.
- Goetsch, David L. & Davis, Stanley B. 2000. Quality Management- Introduction to Total Quality Management for Production, Processing, and Services. New Jersey: Prentice Hall International Inc.
- Handi Irawan. 2003. 10 Principles of Customer Satisfaction. Jakarta: PT Elex Media Komputindo.
- Hansen, Don R. & Mowen, Maryanne M. 2006. Management Accounting: The Cornerstone for Business Decisions. Thomson South-Western.
- Hendricks, Kevin B. & Singhal, Vinod R. 2000. The Impact of Total Quality Management (TQM) on Financial Performance: Evidence from Quality Award Winners. Via <http://www.yahoo.com>
- Jur. Martinus Udin Silalahi. 2003. Overview of Business Competition in 2003 and Prospects 2004. Through <http://www.sinarharapan.co.id>
- Ministry of National Development Planning / National Development Planning Agency (Bappenas). Indonesia Infrastructure 2003: Before, During, and After the Crisis. Printed by: Perum printing RI State.
- Ministry of Transportation of the Republic of Indonesia, 2011. Printed by: Perum printing RI State.
- Keng Fong Ho. 2000. Moving Towards Quality Excellence. Sprintprint-Prentice Hall Asia.
- Kinicki, Angelo & Kreitner, Robert. 1998. Organizational Behavior. New York: McGraw Hill Inc.
- Mulyadi. 1998. Total Quality Management. Yogyakarta: Aditya Media.
- M. Nur Nasution. 2004. Transportation Management. Jakarta: Ghalia Indonesia.
- Rao, Ashok., Carr, Lawrence P., Dambolena, Ishmael., Kopp, Robert J., Martin, John., Rafii, Farshad., & Schlesinger, Phyllis Fineman. 1996. Total Quality Management: A Cross Functional Perspective. The United States of America: John Wiley & Sons Inc.
- Retno Kurnianingsih and Nur Indriantoro. 2001. Effect Measurement System and System Engineering Award of the Effectiveness of Quality Management (Empirical Study on Manufacturing Company in Indonesia). Indonesian Journal of Accounting Research 4: 28-43.

- Roethlein, Christopher., Mangiameli, Paul. & Ebrahimpour, Maling. 2002. Quality in US Manufacturing Industries: An Empirical Study. *Quality Management Journal* 9: 48-66.
- Rudi Suardi. 2003 *Quality Management System ISO 9000: 2000: Application to Achieve TQM*. Jakarta: Publisher PPM.
- Edward K. publictransportation 1991: *Planning, Operation and Management* .New Jersey: Prentice Hall, Inc. Morlok.
- Tamin, Ofyar Z. 2000. *Introduction to Engineering and Transport Planning* Jakarta: Publisher.
- Sebastianelli, Rose & Tamimi, Nabil. 2003. Understanding the Obstacles to TQM Success. *Quality Management Journal* 3: 45-56.
- Sharma, D.D. 2000. *Quest for World Class Excellence through Total Quality Management: Principles*.
- Siegel, Sidney. 1997. *Nonparametric Statistics for the Social Sciences*. Translation Zanzawi Suyuti and landung simatupang. Jakarta: PT Gramedia Pustaka Utama.
- Soewarso Hardjosoedarmo. 1999. *Selected Readings on Total Quality Management*. Yogyakarta: Andy.
- Tenner, Arthur R. & DeToro, Irving J. 1992. *Total Quality Management: Three Steps to Continuous Improvement*. Massachusetts: Addison-Wesley Publishing Company.
- Tsang, Joanna Yee Hing & Antony, Jiju. 2001. *Total Quality Management in UK Service Organizations: Some Key Findings from a Survey*. *Managing Service Quality* 11:132- 141. www.bumn-ri.com