

THE INFLUENCE OF ISO 9000's CERTIFICATION ON BUSINESS PERFORMANCE DIRECTLY AND THROUGH CUSTOMER SATISFACTION (THE CASE ON MANUFACTURING COMPANIES IN JAKARTA)

Hendro Lukman¹⁾, Bernike Alaxanria²⁾

^{1) 2)} Faculty of Economics, University of Tarumanagara. Jakarta. Indonesia

Corresponding Author : hendrolukman@gmail.com

Abstract

The implementation of ISO 9000 in Indonesia, including in Jakarta has become a necessity for companies to meet customer satisfaction on the quality of products so as to improve company performance. A phenomenon occurs on companies that have already had the certificate of ISO 9000, not all managed to improve their performance. There are companies that are still not stable, even decline their businesses. This study aimed to analyze the effects of the implementation of ISO 9000 which consists of Quality Cost, Quality Improvement and Innovation of products to improve Business Performance directly and through Customer Satisfaction. The results showed that the Quality Cost has a significant effect and a positive direction, the Quality Improvement has no effect but has a positive direction, and Innovation has no effect and has a negative direction towards Customer Satisfaction. Customer Satisfaction subsequently has a positive influence on Business Performance. Other results showed that Quality Cost, Quality Improvement and Innovation have positive effects on Business Performance, but only Innovation does not significantly affect Business Performance. From this study it can be concluded that the implementation of ISO 9000 is less favorable to the customer's satisfaction, but the implementation of ISO 9000 and Customer Satisfaction can improve Business Performance.

Keyword: ISO 9000, Customer Satisfaction, Business Performance.

Introduction

The ISO 9000 accreditation is the quality management system which has been widely implemented by companies almost all over the world. The ISO 9001 certification is an entrance to implement total quality management approach. Total Quality Management approach is an approach that shifts from the final inspection approach to the quality as a management system approach which focuses on customers and performs ongoing quality development according to Poksiaka (2010). In the process of improvement efforts, Feigenbaum (1956) said that quality cost is a means to quantify the total cost of quality-related efforts and deficiencies. According to Crosby, quality is measured by the cost of quality, which is the expense of non-conformance – the cost of doing things wrong in Sower, Quarles and Broussard (2007). The ISO 9000 is a quality management system that emphasizes how the company makes quality system for the products they produce with quality retention or quality stability at a level that meets customers requisites according to Nabatchian et al. (2014).

One general purpose of the implementation of ISO 9000 is to improve the quality of products produced. So, in addition to meeting customer requirements it also creates opportunities to open new markets based on Santos and Leal (2013). Therefore, the development of quality is necessary by a company with ISO 9000 certification. By developing quality, customers are increasingly reliant on these products so as to increase sales or market share.

As a result of the implementation of ISO 9001 that emphasizes on continual improvement, the system can bring a company to innovate its products. Innovation can be in the form of development of existing products or new products. Product development is also one of the needs of customers. With the innovation of products it expected to enhance customer satisfaction and ultimately increase sales and business performance.

Materials and Methods

The ISO 9000 series is a development of the British Standard 5750 (BS 5750). The BS 5750 is known as a common quality standard because it is not aimed at a specific industry. In 1987, the British government persuaded the International Organization for International (ISO) to adopt BS 5750 as the international standard. In 1987, the International Standard ISO 9000 series were issued under the name ISO 9000:1987 with the same structure as BS 5750. In 1994, the International Standard issued ISO 9000:1994 which emphasized on quality assurance through preventive measures and followed by obedience to the procedures documented. Six years later the ISO 9000:1994 was revised to become ISO 9000: 2000 which emphasizes on continual improvement. The ISO 9000 version that is currently used by companies or organizations is ISO 9000:2008 which was issued on November 15, 2008. This version has no

fundamental change from ISO 9000: 2000. This version emphasizes on the scope of the definition of control on the outsourced process, validation of software, effectiveness of corrective / preventive action, and control of external document according to Kumar and Balksihnan (2011). By 2015, the International Standards are processing the version of ISO 9000: 2015.

The concept of quality management system of ISO 9000 emphasizes on the involvement of all elements in the organization for the creation of quality products or services. The creation of a quality product is not only the responsibility of the production department alone but all parts will be associated with the production process, starting from the design, planning and production control, purchasing, engineering, warehouse, quality control and finance department.

From the beginning, this standard to ensure product quality had been processed through written procedures and administrative documentation which is a tool of quality control system. However, the latest development via the version of ISO 9000: 2000, ISO 9000 emphasizes the continual improvement of the quality of products or services.

The impact of the implementation of ISO 9000 is to reduce non-conformance products. To reduce non-conformance products, needed effort is measured as cost. Quality costs are the total cost incurred by investing in the prevention of nonconformance to requirement, appraising a product of service for conformance to requirement and failing to meet requirement (Campanella, 1999). By optimizing quality costs for the particular case of a production process (Oppermann et al., 2003), a firm develops a concept and a model for determining the level of quality that maximizes both customer's satisfaction and its profit (Brad, 2010).

The results of the implementation of ISO 9000 are the continual improvement of the quality management system and the quality of a product or service produced. Quality improvement indirectly also fulfills the companies' expectation to increase their sales through new products. The quality improvement is generally based on the global achievement of the objectives of a company (Santos and Leal, 2013). Quality improvement can be done through continuous improvement that is often defined and represented by the PDCA (Plan-Do-Check-Act) cycle as the Deming circle, named after W.E. Deming in Sokovie et al. (2010). The Deming PDCA circle has been adopted in the ISO 9000 standard since ISO 9000:2000.

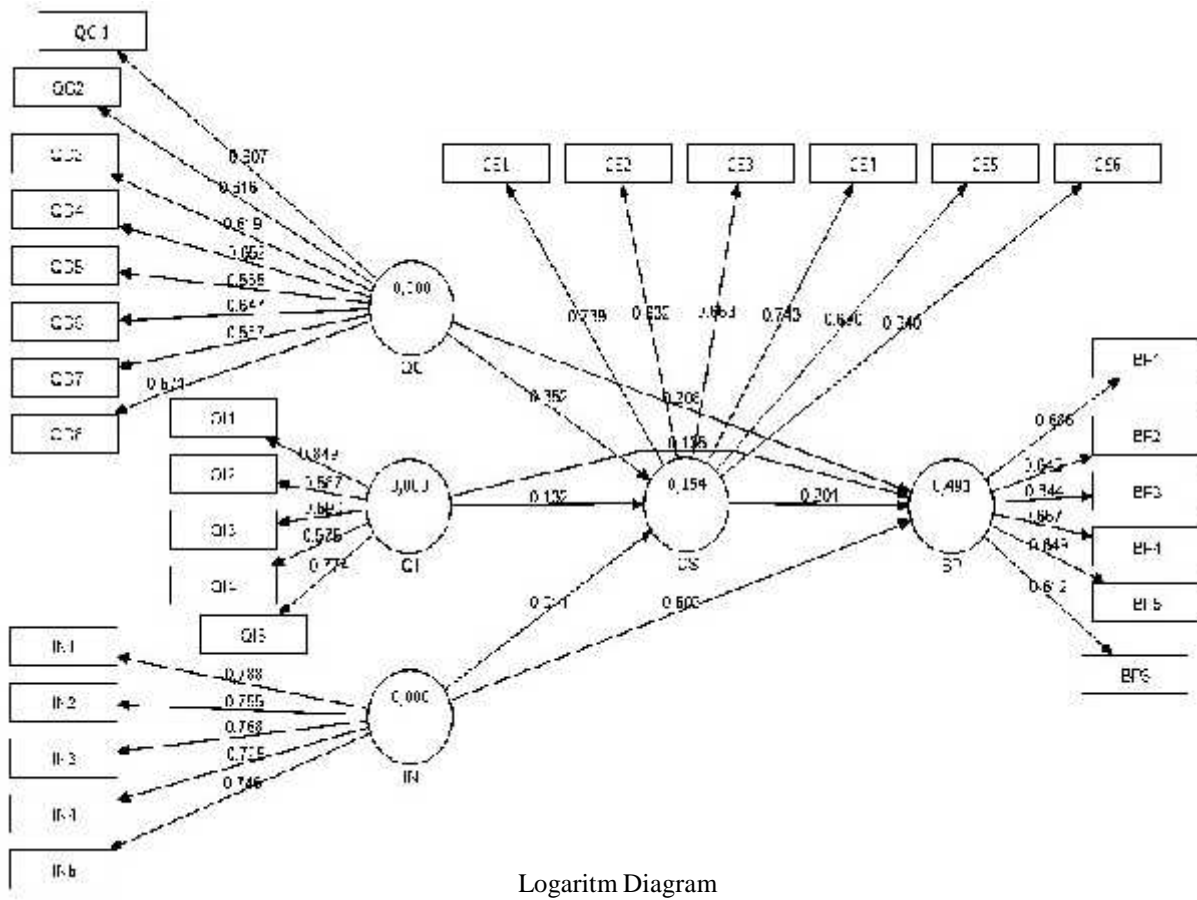
Innovation is a new idea which is more effective than the previous system, product, service, technology. In economic approach, with innovation a person or company can improve their economies. Innovation can occur in all areas, not just products and services. Innovation of goods may be in the form of additional features or new forms of existing products or services, or any new invention. Although the relationship between Total Quality Management with Innovation can be positive or negative, there is a relationship. But it was found that not all principles of total quality management play a major role in innovation (Abrunhosa and Sá 2008). What is the relationship of innovation with ISO 9000? One concept of ISO 9000 is continual improvement. Therefore, the impact of continual improvement is innovation to fulfill customer satisfaction.

Customer satisfaction is defined as a customer's overall evaluation of the performance of a company's product quality, service quality, and price or payment equity. It also contains a significant affective component, which is created through repeated product or service usage (Oliver 1999) in Gustafsson et al. (2005). Customer satisfaction is the target of ISO 9000. If customers are satisfied with a product or service that they received, they will be loyal on buying the product or service. Finally it will affect the Business Performance of companies.

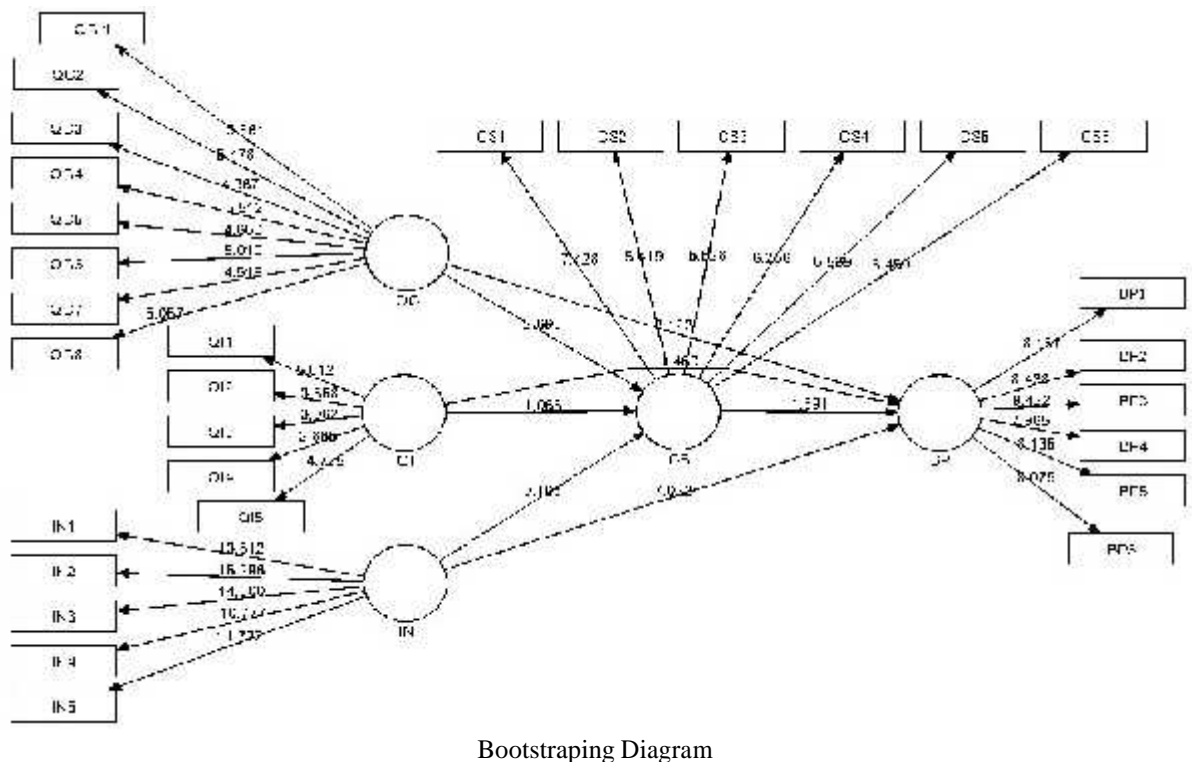
Business performance is a combination of management and process analysis followed by managers to achieve its goals that have been determined. There are two themes that relate to business performance: first, better product or service quality differentials against competitors, and second, quality management system characteristics (the most dominant being improved conformance quality) that reduce internal costs or are associated with business performance improvement according to Heras et al. (2002). According to Bourne et al. (2003), a business performance measurement system refers to the use of a multi-dimensional set of performance measures for the planning and management of a business ". Therefore, business performance measurements are taken. In the ISO 9000 standards, management strategies and quality policies should state their quality level in preparing quality management system to meet customer satisfaction and what they need to monitor and evaluate the strategy and quality policies.

Variables used in this study consist of Quality Cost (QC), Quality Improvement (QI), Innovation (IN), Customer satisfaction (CS), Business Performance (BP) of the manufacturing companies located in Jakarta and its surrounding areas. The sample used was 121 respondents with managerial levels. *One of aims ISO implementation is reducing the quality cost of product. Quality improvement is a form of continual improvement which is the concept of ISO 9000 since they have issued of ISO 9000:2000. Product Innovation is the expectation of the result of the implementation of ISO 9000 Product Innovation is the expectation of the result of the implementation of ISO 9000 that are run consistently with continual improvement. While Customer Satisfaction is the basic direction of the purpose of the implementation of ISO 9000 by fulfilling customer requirements. Eventually, all of these variables will have an impact on business performance.*

The hypothesis of this study is as follows :



Logarithm Diagram



Bootstrapping Diagram

Hypothesis	Relation	Original Sample(0)	T Statistics	R Square	Results
Hypothesis 1A	QI to CS	0.131627	1.065965	0.153959	HO accepted
Hypothesis 1B	IN to CS	-0.01621	0.107589	0.153959	HO accepted
Hypothesis 1C	QC to CS	0,35174	2.697949	0.153959	HO refused
Hypothesis 2A	QI to BP	0.135326	1,460187	0.490614	HO accepted
Hypothesis 2B	IN to BP	0.503058	7.022182	0.490614	HO refused
Hypothesis 2C	QC to BP	0.208172	2.1223	0.490614	HO refused
Hypothesis 3	CS to BP	0.200707	1.890916	0.490614	HO refused

Results and Discussion

Hypothesis 1 : The influence of QC, QI and IN to Customer Satisfaction. The results indicate that QC has a positive significant effect on customer satisfaction. It indicates that the quality cost of the product will be higher because the products delivered to customers are conformance with customer requirement. QI has no effect but has positive direction toward Customer Satisfaction. It shows that the higher the quality improvement of a product, the higher the customer satisfaction, although the improvement of a product has not been able to meet customer expectations. IN has no effect and has a negative direction toward customer satisfaction. This shows that customer satisfaction with innovative products is decreasing. It may be because consumers do not like the innovation of the product or consumers prefer the existing product.

Hypothesis 2: the influence of QC, QI, IN directly to the Business Performance. The results show that QC is significant and has a positive impact on Business Performance. This indicates that the quality of a product conforms with customer requirement. The higher the quality cost, the greater the influence on Business Performance. QI has *no* effect and a positive direction to Business Performance. This shows that the higher QI of a product, no effect to the Business Performance. IN has a positive influence on Business Performance. It indicates that product innovation will make Business Performance higher.

Hypothesis 3: The influence of the Customer Satisfaction to Business Performance. Customer Satisfaction has a positive influence on Business Performance. This shows that the higher the customer satisfaction, the higher the Business Performance.

Companies that implement ISO 9000 might reduce nonconformance products through Cost Quality measurement, Quality Improvement and Innovation. Product innovation does not always bring satisfaction to customers, although the quality cost and quality improvement can increase customer satisfaction which affects business performance. On the other hand, Quality Cost, Quality Improvement and Innovation directly have a positive influence on Business Process but Product Innovation has no effect significantly to Business Performance. The conclusion of the research : for companies that have been certified with ISO 9000 in Jakarta and its surrounding areas, Quality Cost, and Quality Improvement on bring positive influence to Business Performance, but innovation of product do not always result in customer's satisfaction, although innovation brings a positive influence and not effect significant to the Business Performance. This situation can occur because not all innovation products can always satisfy the customers or fulfill customers' requirement. However, innovation can affect business performance. As a suggestiton, to innovate a new, modified or diversified product, companies must involve the marketing aspect from the beginning of innovation process until the product is ready to be offered or sold to customers. For the next researches, the marketing aspect should be considered to Innovation as another quality aspect.

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