
Effect of ISO 9001:2015 Quality Management Implementation in Education on School Performance

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Abstract

The purpose of this study was to determine the impact of implementing ISO 9001: 2015 on school performance as measured by the Balanced Scorecard. Primary data were obtained by distributing questionnaires to 120 respondents who were teachers and school employees in Tangerang. The independent variable in this study is the application of the principles of ISO 9001: 2015 while the dependent variable is good school performance from a perspective finance, customer perspective, internal business perspective, and learning and growth perspective. To determine the effect of independent variables and dependent variables, path analysis method is used. The results of data processing show that there is a positive influence between the application of ISO 9001: 2015 on school performance from a financial perspective, a customer perspective, an internal business perspective, and a learning and growth perspective. From these results the authors suggest that other agencies apply the principles of ISO 9001: 2015 in the management of their institutions to improve their performance.

Keywords: ISO 9001: 2015, balanced scorecard, path analysis, School Performance

1. INTRODUCTION

The quality assurance system in education is a topic that is widely discussed, researched and developed by many experts at the level international. One of the quality management system standards that have developed in developed and developing countries is the Quality Management System ISO 9001: 2015. This standard is a means or tool to achieve quality objectives which are expected to be able to answer the challenges of globalization where the

goal is the end is to achieve organizational effectiveness and efficiency. Obtaining ISO 9001: 2015 certification in an organization means that the organization it has run an internationally recognized quality management system. European Community Commissions and Institutions actively promoting the adoption of the ISO 9001: 2015 standard which is ultimately incorporated in the EU business direction (Karapetrovic, et al., 2010). As a result, more than 0.5 million companies have adopted ISO standards in Europe. There has been a tremendous growth in the number of certified businesses around the world since founded in 1994–2010. Over the past two decades, there has been a steady increase in the number of countries that have adopted ISO 9000 as their national quality standards, as well as the continuous increase in the number of enterprises in those countries that have been certified. The objective of the ISO 9000 standard is to ensure that certified companies maintain the quality management systems that will allow to meet published quality standards, in relation to processes and activities to provide goods and services. Standard provides guidelines for the foundation and development of a quality management system. The organization should establish a set of assuring practices consistent quality of their products and services, deliver products consistently to meet customer specifications, and clearly outlines these practices in a written set of documents. An external audit process will ensure compliance with ISO 9001: 2015 and document requirements check the conformity of company practices against documented procedures before certification is issued. Therefore, ISO 9001: 2015 can be viewed as a system for managing internal business processes from the beginning to the end of the value chain, including product design, manufacturing, delivery, service, and support (Prajogo, 2010). The implementation of ISO 9001: 2015 in schools is still relatively new in Indonesia. There are still very few schools in Indonesia that have obtained ISO certificates. The application of ISO 9001: 2015 in schools in practice cannot be separated from the supporting and inhibiting factors. The perception of the academic community of the impact of implementing ISO 9001: 2015 on performance will have an influence on the application of the ISO 9001:2015 itself. To find out the extent of the increase in performance, it is necessary to measure performance which is then communicated to all parties concerned. The purpose of this research is to find out implementation of ISO 9001: 2015 on the performance of schools and its impact on school performance from a financial perspective, customer perspective, internal business perspective and learning and growth perspective. According to ISO 9001: 2015) and ISO 9001: 2015 standards, the purpose of the standard is as following: non-conformance prevention, continuous improvement and focus on customer satisfaction. Meanwhile, effectiveness is defined as the extent to which the expected goals can be achieved

In the last decade, there has been a lot of research and debate on the effectiveness of implementing ISO 9001: 2015. Srivastav (2009) states that implementation of ISO 9000 enhances the culture of collaboration, changes the climate from dysfunctional to functional, reduces the level of role stress, strengthens confrontation and problem solving through teamwork, and undermine problem avoidance. Shwu-Ing Wu and Shin-Yi Liu (2009) found this ISO 9000 certification's positive relationship with performance from five perspectives: finance, customers, internal business processes, learning and growth, and company mission.

However, Terziovski (1997) found no evidence of an influence relationship between ISO 9000 and organizational performance among Australian companies. Thus Also, Singels et al. (2001) failed to find a relationship between ISO 9000 and organizational performance among Dutch companies. Event study with Martinez Costa and Martinez Lorente (2003) found that ISO 9000 certification had no observed effect on financial performance in firms Brazil and Spain. Meanwhile, in the education sector, Sang Hoon Bae (2007) found that ISO 9000 certification in schools has nothing to do with student learning outcomes on state tests. There are several variables that affect the impact of implementing ISO. According to Prajogo (2010), Based on previous studies, they are grouped into four categories, namely: (1) no impact; (2) impact on assets (3) an impact on Output (4) has an impact on Organizational Performance. In this study it was also stated that the variables that have a positive relationship with Operational performance and implementation are internal and external motives for implementing ISO 9001: 2015

Performance Measurement with the Balanced Scorecard

Performance is translated as an illustration of the level of achievement of the implementation of an activity / program / policy in realizing goals, objectives, mission and organizational vision contained in the strategic plan of an organization (Mahsun, 2009). Measuring the performance of a company is very important. important for management as evaluation and planning for the future. Performance measurement is also carried out in order to guarantee that the job is what has been done has been implemented effectively and efficiently. The Balanced Scorecard is a performance measurement method that combines financial and non-financial measurements (Kaplan and Norton, 2000). There are four perspectives of business performance measured in the Balanced Scorecard, namely: customer perspective, financial perspective, internal business perspective and learning and growth perspective. The balanced scorecard is intended to help companies achieve their vision and strategy. Apart from maintaining the traditional financial perspective for tangible asset valuation, customer perspective, internal process, and learning and growth as well included to provide some measure of the intangible asset. The balanced scorecard emphasizes that the company's strategy must be evaluated from a financial and non-financial perspective, and be focused on completeness and comprehensive performance evaluation (Pineno, 2002).

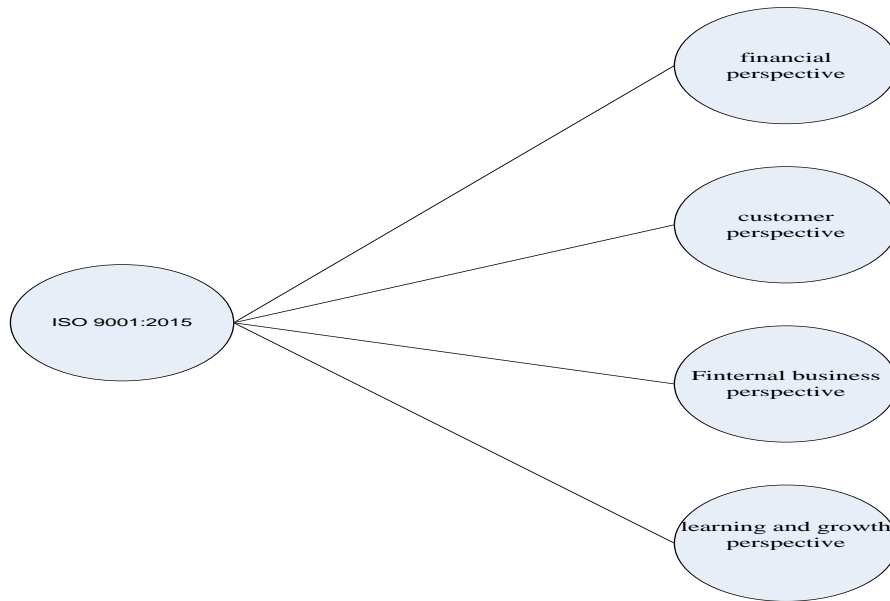


Figure 1. Research Concept Framework

Hypothesis 1: The implementation of ISO 9001: 2015 has a positive effect on the performance of a financial perspective

Hypothesis 2: The implementation of ISO 9001: 2015 has a positive effect on the performance of the customer's perspective

Hypothesis 3: The implementation of ISO 9001: 2015 has a positive influence on the performance of the Internal Business perspective

Hypothesis 4: The implementation of ISO 9001: 2015 has a positive effect on the performance of the learning and growth perspective

2. METHOD

This research is descriptive explanatory which aims to explain the causal relationship and hypothesis testing the effect of the implementation of the ISO 9001: 2000 quality management system on performance school organization as measured by the Balanced Scorecard. The instrument used in this study is to use a survey with a quantitative approach. Before being deployed, a research instrument first measured by the validity test and reliability test. Then the normality test and linearity test were used to measure the research model. The population of this study were all work units in schools. The sample frame of this study was the Work Unit. The sample of this study was taken using a multi-stage sampling method with a cluster random sampling method. Path analysis method is used to test the relationship between variables. All calculations in this data analysis are processed with using SPSS 19 for windows.

3. RESULT AND DISCUSSION

Correlation	Beta	tvalue	Sig t	R2
ISO 9001:2015 financial perspective	0.453	3.648	0.001	0.190
ISO 9001:2015 customer perspective	0.394	2.823	0.006	0.106
ISO 9001:2015 internal business perspective	0.576	5.234	0.000	0.322
ISO 9001:2015 learning and growth perspective	0.473	3.699	0.000	0.191

Based on table 1 it can be seen that the variable path coefficient of the Implementation of ISO 9001: 2015 (X) on the Performance of Financial Perspectives (Y1) is generated 0.454, the t-value is 3,648 and the Sig t is 0.001. Because the value of Sig t <0.05 (0.001 <0.05), it can be concluded that the hypothesis is stated there is an effect of the implementation of ISO 9001: 2015 (X) on the Performance of a Financial Perspective (Y1) is accepted. The variable path coefficient for the implementation of ISO 9001: 2015. (X) on the Customer Perspective Performance (Y2) generated is 0.349, the tcount is 2.823 and the Sig t is 0.006. Because the value of Sig t <0.05. (0.006 <0.05) it can be concluded that the hypothesis which states that there is an effect of the implementation of ISO 9001: 2015 (X) on Customer Perspective Performance(Y2) is accepted.

The variable path coefficient of the application of ISO 9001: 2015 (X) to the Internal Performance of the Internal Business Perspective (Y3) is 0.576, the value of tcount amounted to 5,234 and Sig t of 0,000. Because the value of Sig t <0.05 (0.000 <0.05), it can be concluded that the hypothesis which states there is an influence Implementation of ISO 9001: 2015 (X) on Internal Performance of the Internal Business Perspective (Y3) is accepted.

The variable path coefficient of the application of ISO 9001: 2015 (X) on the Performance Perspective n Learning and Growth (Y4) is 0.473, tcount value is 3,699 and Sig t is 0,000. Because the value of Sig t <0.05 (0.000 <0.05), it can be concluded that the hypothesis that states exists the effect of the implementation of ISO 9001: 2015 (X) on the Performance of Learning and Growth Perspectives (Y4) is accepted. The results of data analysis indicate that the four hypotheses can be accepted. This means that the application of ISO 9001: 2015 in schools, provide a positive influence on the performance of both the customer perspective, financial perspective, internal business perspective and learning and growth perspective. The detailed explanation of the effect of implementing ISO 9001: 2015 on the performance from each perspective is as follows:

The Effect of ISO 9001:2015 Implementation on Customer Perspective Performance

Based on the results of the research analysis, the application of ISO 9001: 2015 has a positive effect on the Customer Perspective Performance. The indicator of the application of ISO 9001: 2015 is the application of each of the principles of ISO 9001: 2015 in schools. While the customer perspective performance in this study is measured by the level of customer satisfaction with higher education academic services, the level of customer satisfaction with

college bureaucratic services and number of complaints from customers in college. Based on the observations of researchers, many customers are more satisfied after ISO 9001: 2015 was implemented due among others because of the clearer business processes of each work unit. Because to meet ISO 9001: 2015 each unit must create a quality manual and procedure manuals that customers can easily access. In addition, in every activity process must be well documented, so that traceable data when needed. The results of this analysis are in accordance with research from Shwu-Ing Wu and Shin-Yi Liu (2009) which states that ISO 9001: 2015 certification has an effect which is positive for organizational performance assessed from five perspectives, namely: finance, customers, internal business processes, learning and growth, and company mission.

The Influence of ISO 9001:2015 Implementation on Financial Perspective Performance

The implementation of ISO 9001: 2015 has a positive effect on the Performance from a Financial Perspective. Respondents considered the implementation of ISO 9001: 2015 to be able to improve performance from a financial perspective. Financial perspective performance indicators used in this study are the level of effectiveness, efficiency and liquidity of the use of funds in UB. In the requirements of ISO 9001: 2015 there is a clause which states that the organization must have quality objectives, system planning quality management, procedure manual and control. By implementing these requirements, it turns out that the work unit feels that it can manage performance their finances more effectively and efficiently. These results are in accordance with previous research from Budhayani (2011) which explains that application

ISO 9001: 2015 will improve organizational performance. Research from Francisco Starke (2012) also mentions in more detail that ISO certification 9000 was found to be associated with an increase in financial performance as measured by an increase in sales revenue, a decrease in the cost of goods sold revenue / sales and an increase in the certified company's asset turnover ratio. However, the results of this study differ from research from Martínez-Costa and Martínez-Lorente (2003) who state that ISO 9000 certification has no effect on financial performance in their research in companies

The Influence of ISO 9001:2015 Implementation on Internal Business Perspective Performance

With the results of the analysis that shows a positive influence, it can be concluded that the respondents think that the application of ISO 9001: 2015 can increase the ease of service procedures in schools. Based on the observations of researchers, each work unit is required to create a procedure manual for each service in accordance with the ISO 9001:2015 requirements, so that service users can find out properly what procedures are needed to obtain a service. Before the procedure manual was created, there were many service users who are confused about getting a service, such as a student graduation service. Previously students had to ask questions and contact a lot work unit to register for graduation which resulted in the registration process getting longer and feels confusing. With the

procedure manual registration for student graduation, users know what to prepare at the beginning and which units to meet, so the process is more easy and fast. In addition, with the manual procedure, errors or service irregularities can be minimized. The results of this study are in accordance with the research previously from Evangelos L. Psomas, et al. (2012), Irfan Saleem, et al. (2011), and Shwu-Ing Wu and Shin-Yi Liu (2009) who state that implementation of ISO 9001:2015 can improve internal business performance. However, contradicting research from Terziovski, et al. (2008) and Karapetrovic, et al. (2010) who did not find an influence relationship between the implementation of ISO 9001: 2015 and business performance.

4. CONCLUSION

Based on the results of data collection and processing, it can be concluded that the implementation of ISO 9001: 2015 has a significant positive effect towards higher education performance from a customer perspective, a financial perspective, an internal business perspective and a learning perspective growth. Thus the four hypotheses can be accepted. Based on the results of the analysis and discussion In this study, the authors suggest that ISO 9001: 2015 be implemented properly and sustainably in order to improve performance schools from both a financial perspective, a customer perspective, an internal business perspective and a learning and growth perspective. In further research, it is better to expand the object of research so that research results can be obtained with a higher level of generalization and developing research instruments, which are adapted to the conditions and environment of the object to be studied.

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