

The Comparison of Student Satisfaction Between Certified and Non-Certified ISO 9001 Schools

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Abstract

Government regulation on international educational unit encourages schools to have ISO 9001 certification so that the development of the ISO 9001 certification in school from year to year increases. Ideally, a school with ISO 9001 has better quality than the school that is not certified. However, many people still doubt the effectiveness of ISO 9001 certification in school in terms of improved quality and student satisfaction. Along with these problems, we need a research to identify and measure the perceptions of students in vocational schools certified ISO 9001 and vocational schools Non-ISO 9001 and determine the service attributes that affect student satisfaction using servqual and gap analysis. The data is taken through a survey of 150 students from five vocational schools certified ISO 9001 and five vocational schools Non-ISO 9001. The survey results based on the gap analysis shows almost the attributes is negative and not much difference between the perceptions of students of certified ISO 9001 and non-certified ISO 9001 vocational school.

Keywords

Students of Vocational School, Servqual, ISO 9001, Gap Analysis.

1. Introduction

In the era of globalization, companies must focus on the quality of products and services provided to the customer in order to maintain their competitive advantage (Al-Najjar & Jawad, 2011). In response to globalization and increased customer expectations, many organizations around the globe have been implementing quality management systems (QMS) under the ISO 9001 standard (Gamboa & Melao, 2012).

Although initially applied to industrial settings, the ISO 9000 series of standards are also being adopted by service organizations, including educational organization (Gamboa & Melao, 2012; Chen, Chen, & Chen, 2013) because they have to face stiff global competition (Singh & Sareen, 2009). The implementation of quality management system in educational organisation aimed to achieve several goals such as to improve competitiveness of school through monitoring of their effectiveness and efficiency, to identify and meet the needs and expectations of customers and other stakeholders, and to maintain and to improve the functions and service operations of the organization towards increasing student's educational performance and stakeholders satisfaction level (Doherty, 2008).

The number of educational organizations that implement ISO 9001 has a significant growth and ISO 9001 is being preferred choice (Thonhauser & Passmore, 2006). Education in Indonesia continues to experience changes and improvements to meet international standards. Thus, the government and various educational institutions strive to reach international standards. Until 2011, there were 700 vocational schools in Indonesia which have implemented ISO 9001 certification. The Ministry of National Education targets around 9,200 vocational schools to be ISO 9001 certified in 2014 (Koran Jakarta, Feb 18th 2011).

Ideally, ISO 9001 certified schools have better quality than non-certified one (Sumaedi & Bakti, 2011). There is a little empirical research about the implementation of ISO 9001 in educational institutions (Gamboa & Melao, 2012). In the field of education, there are barely any references in specialized literature to this topic and the limited evidence from research shows no identical results on the usefulness of QMS in schools (Stensaker et al., 2011).

Students, while not customers in the usual sense, are the primary beneficiaries of education. The secondary beneficiaries (stakeholders) are parents, the marketplace, and society in general (Johnson & Golomskiis, 1999). This research empirically examines the implementation of ISO 9001 in educational institution through measuring the perceptions of students in ISO 9001 certified Vocational Schools and Non-ISO 9001 Vocational Schools and determine service attributes that affect student satisfaction.

2. Literature Review

ISO 9001 is an international standard of quality management systems which aimed to guarantee that the organization will provide products or services that meet the requirement (Yuri & Nurcahyo, 2013). The adoption of a quality management system is a strategic decision for an organization that can help to improve its overall performance and provide a sound basis for sustainable development initiatives (Alfredo & Nurcahyo, 2018). The potential benefits to an organization of implementing a quality management system based on this International Standard are the ability to consistently provide products and services that meet customer and applicable statutory and regulatory requirements and facilitating opportunities to enhance customer satisfaction (ISO 9001:2015).

Perceived quality is the customer's judgment about an entity's overall excellence or superiority (Zeithaml, 1988). Service quality can be defined as the difference between customers' expectations for service performed prior to the service encounter and their perceptions of the service received (Asubonteng, McCleary, & Swan, 1996). Brown and Swartz (1989) stated that satisfaction occurs when the outcome meets or exceeds the customer's expectations. Dissatisfaction occurs when a negative discrepancy is present between the customer's anticipated outcome and the actual outcome. Parasuraman, Zeithaml, and Berry (1985) defined that perceived service quality is the result of the consumer's comparison of expected service with perceived service. Furthermore, Parasuraman, Zeithaml, and Berry (1988) defined perceived service quality as a global judgment, or attitude, relating to the superiority of the service, whereas satisfaction is related to a specific transaction.

3. Research Methodology

This research used quantitative approach. The data were collected using questionnaire. The survey was conducted on five ISO 9001 and non-ISO 9001 certified vocational schools located in Jakarta Province. The number of respondents was 15 respondents for each school. The questionnaire consists of two main sections which are respondent demographic profile and student's perceived service quality (student expectation and school service performance). The measurement scale that used for the student expectation on school service quality using 8 point Likert scale (1=absolutely not expecting, 2=very not expecting, 3=not expecting, 4=somewhat not expecting, 5=somewhat expecting, 6=expecting, 7=strongly expecting, 8=very strongly expecting). The measurement scale that used for the school service performance also using 8 point Likert scale (1=absolutely not satisfied, 2=very not satisfied, 3=satisfied, 4=somewhat not satisfied, 5=somewhat satisfied, 6=satisfied, 7=strongly satisfied, 8=very strongly satisfied).

Literature review and discussion with the expert was conducted to obtain the service quality dimension and the indicator of each service quality dimension. The student's perceived quality was measured using the five dimension of service quality that proposed by Parasuraman, Zeithaml and Berry (1988) which are Tangible, Reliability, Responsiveness, Assurance, and Empathy as shown in Table 1.

Table 1. Service quality dimension

Service Quality Dimension	Definition	Number of Indicators
Tangible	Physical facilities, equipment, and appearance of personnel	9 indicators
Reliability	Ability to perform the promised service dependably and accuracy	2 indicators
Responsiveness	Willingness to help customers and provide prompt service	2 indicators

Assurance	Knowledge and courtesy of employees and their ability to inspire trust and confidence	4 indicators
Empathy	Caring, individualized attention the firm provide its customer	2 indicators

Validity and reliability test was carried out to ensure that the research instrument valid and reliable. Validity is the degree to which a scale or set of measure accurately represents the concept of interest. Validity test was carried out by using Bivariate Pearson Correlation technique. Reliability is an assessment of the degree of consistency between multiple measurements of variable. Reliability test with Cronbach's alpha being the most widely used measure (Hair et al., 2010). Both validity and reliability test was carried out by using SPSS software. Then the data processing was analyzed by using servqual method and gap analysis approach.

4. Result and Discussion

Statistical descriptive of the respondent of this research, as shown in Table 2.

Table 2. Statistical descriptive of the respondent

		ISO 9001 Certified School					Non-ISO 9001 Certified School				
		1	2	3	4	5	6	7	8	9	10
Total number of student		985	782	564	780	765	559	87	130	664	614
Number of respondents		15	15	15	15	15	15	15	15	15	15
Student age	15 years old	0%	33%	6%	0%	19%	0%	0%	0%	60%	0%
	16 years old	40%	61%	37%	69%	75%	18%	25%	7%	40%	14%
	17 years old	60%	6%	38%	31%	6%	53%	31%	50%	0%	57%
	18 years old	0%	0%	19%	0%	0%	23%	38%	36%	0%	29%
	19 years old	0%	0%	0%	0%	0%	6%	6%	0%	0%	0%
	20 years old	0%	0%	0%	0%	0%	0%	0%	7%	0%	0%
Student gender	Male	0%	0%	44%	0%	31%	12%	25%	43%	20%	29%
	Female	100%	100%	56%	100%	69%	88%	75%	57%	80%	71%
Student parents job	Private Employees	60%	44%	44%	38%	31%	24%	37%	36%	33%	29%
	Entrepreneur	0%	17%	50%	8%	25%	41%	25%	43%	67%	71%
	Government Employees	0%	0%	0%	8%	6%	6%	0%	0%	0%	0%
	Others	40%	39%	6%	46%	38%	29%	38%	21%	0%	0%
Student parent education level	Junior High School	0%	28%	31%	31%	13%	53%	31%	0%	13%	29%
	Senior High School	40%	61%	50%	38%	50%	24%	56%	79%	80%	71%
	Diploma 3	0%	0%	0%	0%	12%	0%	0%	0%	0%	0%
	Bachelor Degree	20%	0%	13%	0%	13%	0%	0%	0%	0%	0%
	Others	40%	11%	6%	31%	12%	23%	13%	21%	7%	0%

Validity test was carried out by using Bivariate Pearson Correlation technique that processed using SPSS software. It measures the correlation between the scores of each questionnaire attribute with the total attribute score. If Pearson Correlation value $> r_{table} = 0.159$ ($n = 150$, significance level = 0.05), then the question item is valid. The result of validity test of school service performance and student expectation questionnaire as shown in Table 3. The validity test result shows that all of the questionnaire attributes are valid.

Reliability is an assessment of the degree of consistency between multiple measurements of the variable. Reliability test with Cronbach's alpha being the most widely used measure. The generally agreed upon lower limit for Cronbach's alpha is 0.6 in exploratory study (Hair et al., 2010). Reliability test result as shown in Table 4. From the Table 4, it can be concluded that the Cronbach's alpha (α) of the service performance questionnaire is 0.922, greater than 0.6 so that the service performance questionnaire is highly reliable. The Cronbach's alpha (α) of the student expectation questionnaire is 0.898, greater than 0.6, so the student expectation questionnaire is also highly reliable.

Data analysis of student assessment on school performance and student expectation of ISO 9001 certified school and non-ISO 9001 certified schools are presented in Table 5 and Table 6. From Table 5, almost all of ISO 9001 certified school have a negative gap score of each attribute. Attributes which has a negative gap score means that students are not satisfied with the service attribute. From gap analysis table of ISO 9001 certified school, we conclude that every school has an attribute with a large gap value.

Table 3. Validity test result of school service performance and student expectation questionnaire

No	Attribute	School service performance questionnaire		Student expectation questionnaire	
		Pearson Correlation (r)	Validity	Pearson Correlation (r)	Validity
A1	The cleanliness of the study room, administration room, laboratory, library, canteen, parking lot, prayer facilities and sports facilities in the school are well maintained	0.679	Valid	0.269	Valid
A2	The arrangement of classrooms in schools is neat and attractive	0.699	Valid	0.516	Valid
A3	Equipment and facilities at the school are well maintained so that they can be used properly	0.271	Valid	0.620	Valid
A4	The school learning environment motivates students to learn	0.653	Valid	0.576	Valid
A5	The archives in the school administration room are neatly and systematically organized	0.721	Valid	0.653	Valid
A6	The school curriculum is in accordance with the competency needs of the business and industry field	0.720	Valid	0.746	Valid
A7	The appearance of school teachers and employees is clean and neat	0.696	Valid	0.473	Valid
A8	The facilities in the library are good and adequate	0.634	Valid	0.602	Valid
A9	Internet facilities in schools are adequate	0.598	Valid	0.395	Valid
A10	Teachers provide objective assessments based on students' abilities	0.724	Valid	0.678	Valid
A11	The lessons delivered by the teacher are in accordance with the available learning syllabus	0.729	Valid	0.721	Valid
A12	School administration services are quickly delivered	0.782	Valid	0.669	Valid
A13	The teachers and employees are easily found for consultation	0.705	Valid	0.730	Valid
A14	Teachers and school employees have good competence in their fields	0.771	Valid	0.524	Valid
A15	When consulting and answering student questions, the teachers and employees are friendly, polite, orderly and neat	0.769	Valid	0.555	Valid
A16	Students feel safe in the school	0.735	Valid	0.614	Valid
A17	Students feel close to the teachers and employees	0.713	Valid	0.520	Valid
A18	Complaints and suggestions to the school (teachers, administrative staff, etc.) are responded well	0.727	Valid	0.659	Valid
A19	The teacher recognise the students who follow the learning process	0.677	Valid	0.743	Valid

Table 4. Reliability test result

No	Dimension	Questionnaire	
		School Service Performance	Student Expectation

		Cronbach's alpha (α)	Reliability	Cronbach's alpha (α)	Reliability
1	Tangible	0.922	Reliable	0.898	Reliable
2	Reliability				
3	Responsiveness				
4	Assurance				
5	Empathy				

From Table 5, In School 1 there are 7 attributes that have the largest gap such as "The teachers and employees are easily found for consultation" (Responsiveness A13, Gap score=-2.8), "School administration services are quickly delivered" (Responsiveness A12, Gap score=-2.7), "The facilities in the library are good and adequate" (Tangible A8, Gap score=-2.7), "When consulting and answering student questions, the teachers and employees are friendly, polite, orderly and neat" (Assurance A15, Gap score=-2.4), "The archives in the school administration room are neatly and systematically organized" (Tangible A5, Gap score=-2.3), "Complaints and suggestions to the school (teachers, administrative staff, etc.) are responded well" (Empathy A18, Gap score=-2.3), "Internet facilities in schools are adequate" (Tangible A9, Gap score=-2.2). To reduce this gap and increase student satisfaction, the school must conduct several improvement activities such as the school should encourage teachers and employees to prioritize students and have a desire to help students more, the school should do the service quickly and make the procedure simpler, increase the number of books and the number of existing book collections, teachers and school employees must have a friendly, polite, orderly and neat attitude and also to be more attractive to students, schools must respond to student's feedback and suggestion, the school must manage internet facilities more adequately.

Table 5. Student assessment on school performance and student expectation of ISO 9001 certified school

Attribute Number	ISO 9001 Certified School [E=Expectation; P=Perception]														
	School 1			School 2			School 3			School 4			School 5		
	E	P	Gap	E	P	Gap	E	P	Gap	E	P	Gap	E	P	Gap
Tangible															
A1	7.2	5.4	-1.8	7.3	4.4	-2.9	6.8	4	-2.8	7.9	6.7	-1.2	7.3	5	-2.3
A2	7	5.3	-1.7	6	4.4	-1.6	7	3.7	-3.3	6.4	4.6	-1.8	7.4	5.2	-2.2
A3	7.6	9.7	2.1	6.5	3.7	-2.8	7	3.6	-3.4	6.9	5.1	-1.8	7.5	5.1	-2.4
A4	7.4	5.4	-2	6.5	4.8	-1.7	6.7	4.2	-2.5	7.1	5.8	-1.3	6.7	5.3	-1.4
A5	7.2	4.9	-2.3	5.8	5.7	-0.1	6.5	4.1	-2.4	6.6	5.3	-1.3	6.7	5.6	-1.1
A6	7.8	6.1	-1.7	6.8	6.3	-0.5	7	3.9	-3.1	7	5.8	-1.2	7.5	6.8	-0.7
A7	7.4	5.7	-1.7	5.7	6.6	0.9	6.8	4.1	-2.7	6.4	5.1	-1.3	7.1	6.4	-0.7
A8	7.2	4.5	-2.7	6.7	4.4	-2.3	6.8	3.7	-3.1	6.7	5.6	-1.1	7	5.9	-1.1
A9	7.2	5	-2.2	6.6	3.9	-2.7	6.5	4.1	-2.4	6.6	5.3	-1.3	5.2	4.2	-1
Reliability															
A10	7.6	5.9	-1.7	7.3	6	-1.3	7	4.3	-2.7	6.9	5.7	-1.2	7.2	6.2	-1
A11	7.8	5.7	-2.1	7.3	5.8	-1.5	7.1	4.7	-2.4	7	5.1	-1.9	7.2	6	-1.2
Responsiveness															
A12	7.2	4.5	-2.7	6.3	5.4	-0.9	6.9	3.8	-3.1	6.6	5.1	-1.5	6.7	5.9	-0.8
A13	7.2	4.4	-2.8	6.1	5.2	-0.9	7	4.4	-2.6	6.9	4.6	-2.3	7	6.1	-0.9
Assurance															
A14	7.6	6.4	-1.2	7.1	5.7	-1.4	7.4	3.9	-3.5	7.5	4.6	-2.9	7.1	6.6	-0.5
A15	7.4	5	-2.4	7	5.6	-1.4	7.5	4.3	-3.2	7.3	6.2	-1.1	7.3	6.3	-1
A16	7.6	5.7	-1.9	7.4	6.3	-1.1	7.2	4	-3.2	7	5.7	-1.3	7.7	6.4	-1.3
A17	6.9	5.7	-1.2	6.7	5.3	-1.4	6.8	4.1	-2.7	7.1	5.1	-2	7.2	6.1	-1.1
Empathy															
A18	7	4.7	-2.3	6.3	5.1	-1.2	6.9	3.8	-3.1	7.1	5.6	-1.5	7.3	4.9	-2.4
A19	7.4	5.5	-1.9	6.7	5.6	-1.1	6.4	4	-2.4	7.3	5.9	-1.4	7.1	6.1	-1

In School 2, there are 4 attributes that have largest gap such as “The cleanliness of the study room, administration room, laboratory, library, canteen, parking lot, prayer facilities and sports facilities in the school are well maintained” (Tangible A1, Gap score=-2.9), “Equipment and facilities at the school are well maintained so that they can be used properly” (Tangible A3, Gap score=-2.8), “Internet facilities in schools are adequate” (Tangible A9, Gap score=-2.7), “The facilities in the library are good and adequate” (Tangible A8, Gap score=-2.3). To reduce this gap and increase student satisfaction, the school must conduct several improvement activities such as all facilities and environment in the school must be in a clean and well maintained condition, existing equipment and facilities should be maintained properly so that they can be used properly, the school must manage internet facilities more adequately, increase the number of books and the number of existing book collections.

In School 3 there are 6 attributes that have largest gap such as “Teachers and school employees have a good competence in their fields” (Assurance A14, Gap score=-3.5), “Equipment and facilities at the school are well maintained so that they can be used properly” (Tangible A3, Gap score=-3.4), “The arrangement of classrooms in schools is neat and attractive” (Tangible A2, Gap score=-3.3), “When consulting and answering student questions, the teachers and employees are friendly, polite, orderly and neat” (Assurance A15, Gap score=-3.2), “Students feel safe in the school” (Assurance A16, Gap score=-3.2), “School administration services are quickly delivered” (Responsiveness A12, Gap score=-3.1). To reduce this gap and increase student satisfaction, the school must conduct several improvement activities. Teachers and school employees are important resources for the school. School should be able to enhance training and determine competencies that appropriate for school teachers and employees so that students are truly taught and served by people who are competent in their fields. Existing equipment and facilities should be maintained properly. To improve this, it is suggested that the school able to maintain the existing equipment and facilities so that they can be used properly. Existing classrooms should not only be clean but also keep in mind the neatness and arrangement to make them attractive. Neat and attractive classrooms will increase student satisfaction and enthusiasm for learning. The school should be able to manage and organize, so classrooms are neat and attractive. Schools should encourage teachers and employees to be more attractive to students.

In School 4 there are 4 attributes that have largest gap such as “Teachers and school employees have a good competence in their fields” (Assurance A14, Gap score=-2.9), “The teachers and employees are easily found for consultation” (Responsiveness A13, Gap score=-2.3), “Students feel close to the teachers and employees” (Assurance A17, Gap score=-2.0), “The lessons delivered by the teacher are in accordance with the available learning syllabus” (Reliability A11, Gap score=-1.9). To reduce this gap and increase student satisfaction, the school must conduct several improvement activities such as teachers and school employees are important resources for the school, school should be able to enhance training and determine competencies that appropriate for school teachers and employees so that students are truly taught and served by people who are competent in their fields, the school should encourage teachers and employees to prioritize students and have a desire to help students more, in order to create effective communication, teachers and school employees need to be close to students, schools must often hold events that involve students, teachers, and school employees, lessons delivered must be in accordance with the existing syllabus, so that schools must often socialize to teachers to be consistent with the existing syllabus.

In School 5 there are 4 attributes that have largest gap such as “Equipment and facilities at the school are well maintained so that they can be used properly” (Tangible A3, Gap score=-2.4), “The cleanliness of the study room, administration room, laboratory, library, canteen, parking lot, prayer facilities and sports facilities in the school are well maintained” (Tangible A1, Gap score=-2.3), “The arrangement of classrooms in schools is neat and attractive” (Tangible A2, Gap score=-2.2), “Complaints and suggestions to the school (teachers, administrative staff, etc.) are responded well” (Empathy A18, Gap score=-2.4).

Table 6. Student assessment on school performance and student expectation of Non-ISO 9001 certified school

Attribute Number	Non-ISO 9001 Certified School [E=Expectation; P=Perception]														
	School 6			School 7			School 8			School 9			School 10		
	E	P	Gap	E	P	Gap	E	P	Gap	E	P	Gap	E	P	Gap
Tangible															
A1	7.1	5.1	-2	5.9	4.3	-1.6	7.1	4.4	-2.7	6.9	6.9	0	6.9	5.9	-1

A2	6.5	5.1	-1.4	6.8	4.8	-2	6.8	5	-1.8	7	5.6	-1.4	6.1	5.7	-0.4
A3	6.4	4.6	-1.8	6.8	4.7	-2.1	6.7	4.7	-2	6.8	6.2	-0.6	5.2	5.5	0.3
A4	7	4.7	-2.3	7.3	4.9	-2.4	6.4	4.6	-1.8	6.6	5.8	-0.8	5.3	5.9	0.6
A5	6.5	5.6	-0.9	6.9	5	-1.9	6.3	4.8	-1.5	6.8	5.7	-1.1	5	5.2	0.2
A6	6.9	5.3	-1.6	7.3	4.9	-2.4	7.4	5.3	-2.1	6.8	6.2	-0.6	5.6	5.4	-0.2
A7	6.9	5.8	-1.1	7.4	6.2	-1.2	7	5	-2	6.9	5.4	-1.5	7.4	8	0.6
A8	6.8	4.1	-2.7	6.4	4.5	-1.9	6.5	4.6	-1.9	6.3	5.8	-0.5	4.5	3.7	-0.8
A9	6.9	4	-2.9	7.5	5.8	-1.7	5.6	3.2	-2.4	6	4.5	-1.5	6.6	6.3	-0.3
Reliability															
A10	6.7	5.8	-0.9	7.1	5.2	-1.9	6.7	5.3	-1.4	6.9	6.1	-0.8	5	4.2	-0.8
A11	6.9	5.7	-1.2	7.4	5.8	-1.6	7.2	5.7	-1.5	6.7	6.1	-0.6	5.1	5.5	0.4
Responsiveness															
A12	6.1	5	-1.1	7.4	5	-2.4	6.3	4.1	-2.2	6.6	5.9	-0.7	3.2	4.2	1
A13	6.3	5.3	-1	7.2	6	-1.2	6.2	4.4	-1.8	6.2	5.5	-0.7	2.5	3	0.5
Assurance															
A14	6.7	5.5	-1.2	7.3	5.5	-1.8	6.7	4.9	-1.8	6.9	5.5	-1.4	6.7	6.1	-0.6
A15	7.2	5.3	-1.9	7.8	5.5	-2.3	6.7	4.9	-1.8	7.1	6.8	-0.3	6.8	7.2	0.4
A16	7.2	5.1	-2.1	7.8	5.6	-2.2	6.7	4.7	-2	7.1	6	-1.1	7	7.3	0.3
A17	6.6	5.4	-1.2	7.4	4.7	-2.7	7	5.1	-1.9	6.3	5.4	-0.9	5.5	5.1	-0.4
Empathy															
A18	6.2	4.7	-1.5	7.4	5.3	-2.1	5.2	3.9	-1.3	6.8	6.1	-0.7	5	5.2	0.2
A19	6.2	5.5	-0.7	7.5	5.9	-1.6	6.3	4.5	-1.8	6.6	5.4	-1.2	4	4.6	0.6

From Table 6, almost all of the non-ISO 9001 certified school have a negative gap score of each attribute. In School 6, there are 5 attributes that have largest gap such as Tangible A9 (-2.9), Tangible A8 (-2.7), Tangible A4 (-2.3), Assurance A16 (-2.1). In School 7, there are 8 attributes that have largest gap such as Assurance A17 (-2.7), Tangible A4 and A6, Responsiveness A12 with gap (-2.4), Assurance A15 (-2.3), Assurance A16 (-2.2), Tangible A3 (-2.1), Empathy A18 (-2.1). In School 8, there are 4 attributes that have largest gap such as Tangible A1 (-2.7) and A9 (-2.4), Responsiveness A12 (-2.2), and Tangible A6 (-2.1). In School 9, there are 2 attributes that have a negative gap score such as Tangible A9 (-1.5) and Assurance A14 (-1.4). In School 10, there are 3 attributes that have largest gap score such as Tangible A1 (-1), “Teachers provide objective assessments based on students' abilities” Reliability A10 (-0.8) and Tangible A8 (-0.8). To reduce gap on Reliability A10 and to meet student satisfaction, teachers should be able to provide an objective assessment based on students' abilities without influence from other parties. Therefore, the school should encourage teachers to be fair because the competence is not only the ability to teach students but also the fair attitude of the teacher.

Table 7. Comparison of Perception and Expectation between ISO 9001 certified school and Non-ISO 9001 certified school

No	Dimension	Expectation Mean		Gap	Perception Mean		Gap
		ISO 9001 Certified School	NON-ISO 9001 Certified School		ISO 9001 Certified School	NON-ISO 9001 Certified School	
1	Tangible	6.7	6.6	0.1	4.9	5.1	-0.2
2	Reliability	7.2	6.7	0.5	5.5	5.6	-0.1
3	Responsiveness	6.7	6.0	0.7	5.0	5.0	0.0
4	Assurance	7.2	7.0	0.2	5.3	5.4	-0.1
5	Empathy	6.9	6.3	0.6	5.0	5.0	0.0

Table 7 shows the comparison of perception and expectation between ISO 9001 certified school and Non-ISO 9001. From Table 7, it can be concluded that there is not much difference between the student's perceptions of students in ISO 9001 certified school and Non-ISO 9001 certified school. Meanwhile, the student's expectations in ISO 9001 certified school have greater value than Non-ISO 9001 certified school.

Table 8. Effect of ISO 9001 certification duration using gap analysis

ISO 9001 Certified School	Duration of Certification	Expectation Mean	Perception Mean	Gap Mean
School 1	2 years	7.3	5.3	-2.0
School 2	3 years	6.7	5.4	-1.3
School 3	1 year	6.9	4.1	-2.8
School 4	1 year	7.0	5.3	-1.7
School 5	3 years	7.1	5.8	-1.2

Table 8 shows the effect of ISO 9001 certification duration on the student's perception. From Table 8, it can be concluded that the longer the certification duration, the smaller the gap will become. It means that the length of the certification affects students' perceptions of their school. Schools are expected to remain consistent with the quality guidelines and management commitment is needed to implement an ISO 9001 quality management system.

5. Conclusion

Based on the result of the gap analysis, there are 5 service attributes that have an influence on student satisfaction include cleanliness of study rooms, administrative rooms, laboratories, libraries, canteens, parking lots, religious facilities and sports facilities in schools are not well maintained, internet facilities in schools are inadequate, equipment and facilities at the school are not well maintained so they cannot be used, book facilities in the school library are poor and inadequate, and services in the school administration are provided at a slow time. From 19 attributes in ten schools, most of them are negative. This indicates that students are still not satisfied with the performance of their schools either those who have ISO 9001 certification or those who have not. There is not much difference in students' perceptions between ISO 9001 certified school and Non-ISO 9001 certified school. The longer the year of ISO 9001 certification, the better students' perceptions and smaller gaps occur, so that students at schools with longer certification are more satisfied than schools that have just received ISO 9001 certification.

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