

# Implementation of Application Quality Management (ISO) 9001:2008 for the Business Development Process

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## Abstract

One of very important variables in business world if we want to develop in the competition is the quality. Quality will show the quality measure value of the goods or service that we offered. From the wide quality scope area that influenced the business development process, it turns out that good quality is an image that everybody wants. This is not apart from education world that quality will be a warranty of the continuity of the education process. As one of activator motors in education field in Bali, Bali Asia Education Institution (LPBA) which is one of education service companies wants to find out whether the education management process at LPBA has already accorded to quality standard in ISO 9001:2008. This is due that recently it is indicated that there is a decrease in student gain at LPBA. Audit study was conducted in November 2014, which involves staff LPBA relating to the implementation of the audit field. Problems that will be discussed are the application of quality standard ISO 9001:2008 and measures to perform quality audit ISO 9001:2008 at Bali Asia Education Institution (LPBA). In audit implementation at LPBA, interview and fill in the questionnaire has been performed with related part and observation was also done to the implementation of education process. Appraiser of quality standard application of ISO 9001:2008 (clause 4 to clause 8) was obtained by audit score method and variable measurement scale by using Likert Scale. From the result of data analysis of quality standard implementation of ISO 9001:2008 to the education process at LPBA it obtained average percentage of implementation valuation of clause 4 to 8 for 55,25% which including in medium category ( $41\% \leq \text{Value} \leq 60\%$ ). Factors that become obstacle in the implementation of ISO 9001:2008 are the manpower factor (Human Resources), working method or procedure, and material form or document.

**Keywords:** Quality Management Standard, ISO 9001:2008, Clause, Likert Scale.

## 1. Introduction

Free and tight competition in industrial to educational world, the development of Information Technology and Communication (ICT), increasing of consumer's knowledge, and company's employee, encourage the businessmen who produce goods and service start to figure out factors that capable to increase the product's quality and quantity to increase income to obtain/profit, service satisfaction to consumer, and increasing of employee's prosperity[2][6].

Quality is a key word in Globalization Era that is marked by so many tight competitions recently. A succeed of an education institution in an effort to become the winner in the competition, especially in educational world, is strongly determined by additional value and the capability of management in managing and improving resources that they have [3]. Therefore the education institution should realize in the planning process to fulfill the 8 education standards and also to fulfill people's hope. Education institution has obligation to implement the Quality Management System (SMM) of ISO 9001:2008 that focuses on the people's satisfaction towards the standard of education service quality [1][7]. Therefore it's very important that the Bali Asia Education Institution (LPBA) that moves in non-formal education service implement the SMM ISO 9001:2008 in its business to win the competition. It's not only to fulfill the 8 education standard that fulfill the people's need, but it is also for the importance of LPBA itself to gain more additional value in the same product with other institutions.

Based on the background proposed above, problems to be studied furthermore are the following: [3]

1. What are the actions to perform quality audit in Bali Asia Education Institution (LPBA)?

2. This Bali Asia Education Institution does not perform its operational according to the policy that has been set.
3. Syllabus of learning in Bali Asia Education Institution does not follow the development of skill material needed by working world.
4. There is decrease in the amount of new students accepted in every year.

## 2. Literature Review

### 2.1. Quality Management System

Quality Management System is an ability of a company or service/product supplier in maintaining the quality of the product or service they sold. If a company has already have certification of ISO 9001:2008, it can be said that the product or service offered by the company has been qualified for certain.

Model of quality management system process of ISO 9001:2008 can be described as the following: [2]

1. If an organization wanted to be succeed to reach its purpose, it has to be started with a clear direction from top management, organization purpose is stated in the mission and vision described in the policy and quality target.
2. Organization depends on the customer, therefore the company should find out the customer's desire recently and in the future.
3. Vision and mission as strategic planning need the supply of resources (human, equipment, method, and financial) to be able to realize the customer's conditions and expectation.
4. Resources should be managed to produce products and services that are according to the customer's conditions.
5. Given the strategic planning and sufficient resources supply, it can perform the process of product and service realization that have input from the customer's conditions. Those conditions have been changed to be order of process of internal company that should be controlled by concerning the relevance and dependence among those processes.
6. Product and service produced will be accepted by the customer. In this phase there will be comparator process between customer's expectation and product and services received that will result the condition of satisfied or not satisfied. Company should know the expectation of the customer (it is seen on discontinues lines).
7. As further action of the measurement, customer's satisfaction, effectiveness, and efficiency of management system application, process and product it needs to perform analysis to those data. Data analysis result should be followed up by an improvement program.
8. Improvement programs will demand direction and supply of resources. This means that it needs a commitment again from top management to perform it. Thus the improvement process will be performed continuously with final purpose to satisfy the customer.

### 2.2. Explanation of ISO 9001:2008

ISO 9001:2008 is an international standard for quality management system. ISO 9001:2008 determined conditions and recommendation for design and valuation of a quality management system. ISO 9001:2008 is not a product standard, because it does not state conditions that should be met by a product (goods or service). ISO 9001:2008 is just a standard of quality management system [1]. Yet, it is expected that product produced from an international quality management system will have a good quality (standard).

Application and Implementation of ISO 9001:2008 is not just a copy paste of a determined procedure, if a company wants to have additional value from the ISO 9001:2008 system, the implementation should be performed maximally and it needs a good management commitment [3]. Therefore task of an ISO 9001:2008 consultant is not just to be able to apply the ISO 9001:2008 system in related company but an ISO 9001:2008 consultant should be able to motivate and to make innovation to the related company in order that the benefit of ISO 9001:2008 will be really feel by all employees and the company.

### 2.3. Clause of ISO 9001: 2008

The Quality Management System of ISO 9001: 2008 has 8 principles which are the spirit of ISO 9001:2008 standard which have been described previously. All of these 8 principles be a spirit of 8 clauses of ISO 9001:2008 that contains a series of conditions that should be applied. These 8 principles are like Pancasila, and

8 clauses of ISO 9001:2008 are like the Constitution of 1945 that contains some articles.[5] Well, this clause of ISO 9001 that will be a guidance of the application of Quality Management System of ISO 9001:2008. Standard of ISO 9001:2008 include the 8 clauses that contains some conditions in legal formal language so maybe it is difficult to be understood by people who just read this standard of ISO 9001. Therefore, we will give a little comment or summary for some clauses that in our opinion is needed to be explained. The following are clauses/conditions of Quality Management System of ISO 9001:2008.[3][5]

- Clause 1. Scope Area  
In this clause the standard conditions have stressed to meet customer's satisfaction.
- Clause 2. Normative Reference  
This clause is only containing of references that should be prepared by the contractor, those are:
  - o Government Regulation
  - o Guidance books about quality
- Clause 3. Terms and Definition  
This clause stated that term and definitions given in ISO 9001:2008 determine, document, perform, maintaining actions for implementation of quality management system of ISO 9001:2008 and the need for continuous improvement.
- Clause 4. Quality Management System  
General conditions in leading and operating an organization need performing systematic management by provable methods.
- Clause 5. Management Responsibility  
This clause stresses to top management commitment. In the case of customer focus the top management should be able to warrant that customer's conditions have been determined and fulfilled with the purpose to improve customer's satisfaction.
- Clause 6. Management of Resources  
Resources supply of an organization should determine and give needed resources properly to apply and maintain quality management system of ISO 9001:2008 and increase its effectiveness continuously and increase customer's satisfaction.
- Clause 7. Product Realization  
In the case of product realization the organization should warrant that product realization process is under control in order to meet product requirement.
- Clause 8. Measurement of analysis and Improvement  
General requirement in Clause 8 about the measurement of analysis and improvement, where the organization should determine plans and apply measurement processes.

### **3. Research Method**

#### **a. Audit Activity Design**

Audit draft activities in LPBA information technology can be described as Figure 1. To get qualitative data on the interpretation filling in research instrument, it is made a variable measurement scale by giving score to each questionnaire's answer. Scale to be used is the likert scale.

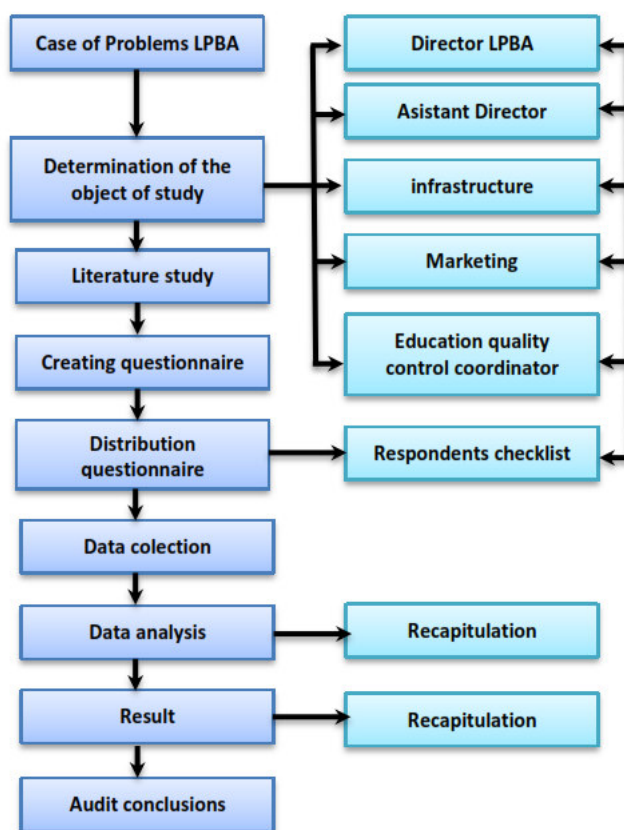


Figure 1. The draft audit activities

b. Score Interpretation Criteria

The Likert Scale is a pshycometric scale that is generally used in questionnaires, and it is a scale that mostly used in a research in the form of survey. When responding a question in Likert scale the respondents determine the level of their approval to a statement by choosing one of available choices which might be in the form of words among others as the following:

Tabel 1. Likert scale score

Value	Classification	Scores
81-100	Very Good	5
61-80	Good	4
41-60	Medium	3
21-40	Bad	2
<20	Very Bad	1

Whereas for the calculation of score using the following formula: [4]

$$Score = \frac{Total\ Score\ (A)}{Total\ Value\ (B)} \times 100\%$$

Description:

- Total Score ( A ) = Total score value 1 – 5
- Total Value ( B ) = Total maximum score value of each clause

4. Result and Discussion

Data Collection

Respondents chose for the wide spreading of questionnaire checklist of ISO 9001:2008 clause questions were explained in the following table.

Tabel 2. Respondents data collection

No	Clauses	Director	Asisant Director	Marketing	Infrastructure	Academic Quality Coordinator
4	Quality management system		✓	✓	✓	✓
5	Management responsibilities	✓	✓	✓		
6	Resource management		✓		✓	✓
7	Product realization		✓	✓	✓	
8	Measurement, analysis and improvement	✓	✓	✓	✓	✓

### Recapitulation of Clause Implementation

The following is the result of recapitulation of questionnaire wide spreading from ISO 9001:2008 clauses questions on Bali Asia Education Institution (LPBA).

Tabel 3. Recapitulation data clauses

No	Quisioner	R1	R2	R3	R4
1	4.1.	3	2	3	3
2	4.1.a	2	2	2	2
3	4.1.b	3	3	3	3
4	4.1.c	4	4	3	3
5	4.1.d	4	3	2	3
6	4.2.2	3	4	3	3
7	4.2.2.a	2	2	2	2
8	4.2.2.b	2	3	2	2
9	4.2.2.c	3	2	2	2
10	4.2.4.a	3	3	2	3
11	4.2.4.b	2	3	2	2
12	4.2.4.c	3	3	3	3
	TOTAL	34	34	29	31

### Recapitulation of Process Valuation of Clause 4 (Quality Management System)

Percentage of clause 4 application (Quality Management System) is calculated as the following:

a. Total value of score of interview result (A) of 12 questions of clause 4.

- Respondents (R1): 34
- Marketing Respondents (R2): 34
- Structure and Infrastructure Respondents (R3): 29
- Education Quality Coordinator Respondents (R4): 31

Maximum score value (B) clause 4 :  $5 \times 12 = 60$

b. Therefore the application of clause 4 is:

**Respondents ( R1 )**

$$Score R1 = \frac{Total\ Score\ (A)}{Total\ Value\ (B)} \times 100\%$$

$$Score R1 = \frac{34}{60} \times 100\%$$

$$Score R1 = 56,67\%$$

**Marketing Respondents ( R2 )**

$$Score R2 = \frac{Total\ Score\ (A)}{Total\ Value\ (B)} \times 100\%$$

$$Score R2 = \frac{34}{60} \times 100\%$$

$$Score R2 = 56,67\%$$

**Structure and Infrastructure Respondents ( R3 )**

$$Score R3 = \frac{Total\ Score\ (A)}{Total\ Value\ (B)} \times 100\%$$

$$Score R3 = \frac{29}{60} \times 100\%$$

$$Score R3 = 48,33\%$$

**Education Quality Coordinator Respondents ( R4 )**

$$Score R4 = \frac{Total\ Score\ (A)}{Total\ Value\ (B)} \times 100\%$$

$$Score R4 = \frac{31}{60} \times 100\%$$

$$Score R4 = 51,67\%$$

c. Percentage average of clause 4 (Quality Management System) on likert scale from all 4 respondents are:

$$Total\ Score\ of\ Clause\ 4 = \frac{Score\ R1 + Score\ R2 + Score\ R3 + Score\ R4}{4\ Respondents}$$

$$Total\ Score\ of\ Clause\ 4 = \frac{56,67\% + 56,67\% + 48,33\% + 51,67\%}{4}$$

$$Total\ Score\ of\ Clause\ 4 = 53,33\%$$

Valuation result to clause 4 (Quality Management System) include in the category of: **Medium**

Tabel 4. Marking data clauses 4

Value (%)	Classification
81-100	Very Good
61-80	Good
41-60	<b>Medium</b>
21-40	Bad
<20	Very Bad

**Recapitulation of Valuation Result of ISO 9001 : 2008**

Recapitulation of valuation result of ISO 9001 : 2008 clause at Bali Asia Education Institution based on the respondents that was audited as the following:

Tabel 5. ISO 9001 : 2008 valuation result

No	Clauses	Percentage
1	Clause 4 - Quality management system	53,33 %
2	Clause 5 - Management responsibilities	54,44 %
3	Clause 6 - Resource management	54,36 %
4	Clause 7 - Product realization	56,79 %
5	Clause 8 - Measurement, analysis and improvement	57,35 %
	Rata-rata	55,25 %

Result of average valuation on clause ISO 9001:2008 at Bali Asia Education Institution is including in the category of: Medium ( $41\% \leq \text{Score} \leq 60\%$ ).

### Conversion to Graphic and Data Meaning

From the above graphic picture it can be seen that result of audit number at each clause has the same consistency to the application of ISO 9001:2008 which has the value of medium. It shows that in LPBA in the case of application of quality management of ISO 9001:2008 should be really done. According to problem's formula above which stated that there was decrease in the amount of student acceptance, indeed if it was seen from the result of quality management system audit at LPBA, it shows a tendency of quality management implementation decreasing at LPBA.

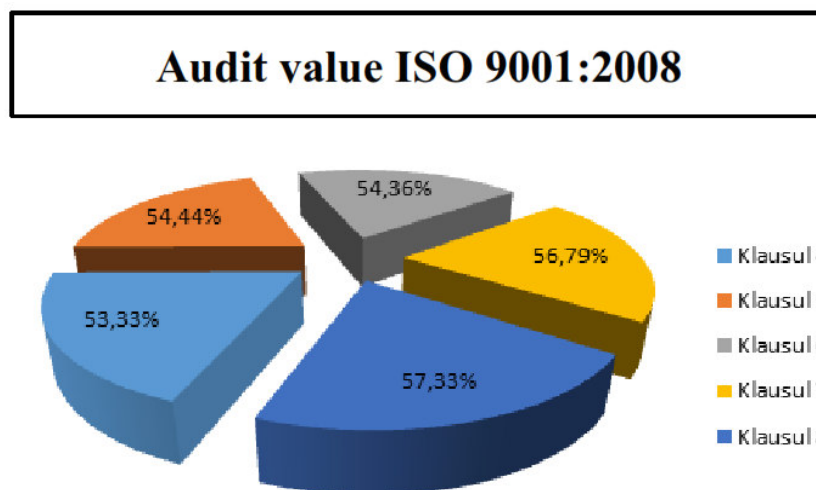


Figure 3. ISO 9001:2008 audit value

It can't be denied that the cause of the ups and downs of company's quality cannot be separated from its key management. Every policy of key management will very influence to the performing of business process in every business. Like it is seen from the above graphic picture, especially that involves key management (director) in audit at clause 5 and clause 8, it is seem that audit value of key management is very good, but the good value is not accompanied by their subordinates. This shows that there is still a commitment difference between the key managements and their subordinates to develop the business.

### 5. Conclusion and Sugestion

#### Conclusion

From the analysis result of quality management system application of ISO 9001:2008 to Bali Asia Education Institution (LPBA), it can be concluded as the following:

1. Level of ISO 9001:2008 application of Bali Asia Education Institution (LPBA) is for 55.25% which including in the category of Medium (41% to 60%).
2. Factors that become the obstacle in the application of quality management system of ISO 9001:2008 are the factors of manpower (human resources), work procedure or method, curriculum, and forms or documents which are not reach 100%.

### Suggestion

1. From the questionnaire valuation result, Bali Asia Education Institution should be able to maintain the result and perform an improvement to the clauses which have less maximum value.
2. The implementation of ISO 9001:2008 application to Bali Asia Education Institution needs a change to support performance and target expected which is the increasing in the new student acceptance in every year.
3. It needs a commitment from the management of education institution to perform ISO 9001:2008 continuously and regularly in every year.

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