Model Implementation of Quality Management System
ISO 9001: 2008 Study on Motives, Benefits, Obstacles, and Success Factors

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Abstract

The problems are formulated as follows: ISO 9001: 2008 certification focuses more on proving compliance with standards and has not accommodated the needs of the education world to meet the expectations of stakeholders as well as continuous improvement of organizational performance. The need for implementation of Quality Management System in education sector becomes important. The focus of this research is to describe the condition of motives, benefits, obstacles and success factors of ISO 9001: 2008 Quality Management System. The research method used is explanatory survey method with descriptive analysis technique. The population of research states vocational school in Bandung and the sample is the manager of Quality Management System. The results describe the condition of motives, benefits, obstacles and success factors of implementation of ISO 9001: 2008 quality management. The motives categorical are high, high benefit, medium barriers and factors of high category success. This means that the impetus of the school to apply ISO is very good, the benefits of good ISO implementation and success factors in the application of ISO is very good, while in its application there are still barriers in the medium category. Implementation of ISO 9001: 2008 quality management becomes a very important thing to improve the competitiveness of state vocational school in Bandung. A serious effort is required in implementing the ISO 9001: 2008 Quality Management system.

Keywords: Implementation; Quality Management System; ISO 9001: 2008; motives; benefits; obstacles; and success factors

1. Introduction

Development of education services, especially secondary education is much changed, especially with the establishment of various Vocational Schools offering a wide range of scientific fields, requiring each Vocational School to face intense competition both nationally and internationally. This condition encourages Vocational School to immediately improve competitiveness by making various improvements consistently and continuously in order to meet customer satisfaction by providing services and good quality in education. Implementation of Quality Management System in Vocational School is surely an urgent condition for Vocational School to compete and can control the quality of education services that have been promised to its users. This is also related to the paradigm shift from the old paradigm which suggests that the quality of education in a Vocational School will be maintained and enhanced if strict supervision or control by the government becomes a new paradigm stating that Vocational High School must ensure and maintain the quality of education which he organized so that his vision can be realized through the implementation of its mission so as to satisfy the stakeholders.

Thus the implementation of Quality Management System at Vocational High School (1) is expected to be created to: (1) Increasing customer confidence and satisfaction through organized and systematic quality assurance, where policies, procedures, and instructions relating to quality are well planned; (2) Improved image of Vocational School in Customer perception, including: the Community, the Graduate User, the Student itself, Parents, and the various audiences relating to the Vocational School; (3) Increased consistency in maintaining the quality of education services, this is in connection with the audit of the registration agency assessing Vocational School which has implemented Quality Management System and its commitment in maintaining quality; and (4) Awareness raising of all stakeholders on the importance of quality. Quality is the most important factor of competition worldwide and this competition intensified the demand for quality products and services. To meet these challenges, many businesses have adopted the strategies of total quality management (TQM) (2) Overall will encourage positive change in Vocational School in terms of quality that will become an organizational culture, because all school stakeholders are always striving to deliver good quality. Of course it is not easy in realizing it, because in the management of each Vocational School will face the problems and challenges in carrying out its operations. These challenges can...
come from outside as well as within the school itself, from outside as it is related to increasing competition, both coming from competitors, as well as increasingly specific customer demands, while from within related to the management of resources available in schools to be more competitive in the field quality, productivity, and complaint handling.

There are several programs that can be applied in relation to the improvement or improvement of school services, one of which is Total Quality Management. One of the Total Quality Management programs is the ISO 9001 quality management system.

The ISO 9001 quality management system is an integrated system to optimize the effectiveness of an organization by creating a continuous improvement or improvement framework. Organizations implement a quality management system manage all activities of technical, administrative, and human resources, which are arranged as process according to the requirements. This arrangement will be effective and measurable achievement because all activities related to the process are regulated in procedures and work instructions controlled by using the form. This quality management system standard also includes policy, planning, implementation, control, and improvement of all aspects, so as to improve productivity, efficiency, operational effectiveness and reduce costs incurred due to operational failure.

Quality Management System has been realized its form and benefits in quality improvement periodically in Vocational School. Although, generally, still symbolic in the design of quality in cabinets and paper. But, at least, it is a good visualization to describe the good intention in an organization.

In general, the application of Quality Management System (4) in Vocational School has the objectives of: (1) Providing guidance on one quality assurance cycle in Vocational School; (2) Maintain and continuously improve the quality of education that Vocational School runs internally to realize its vision and mission and to meet the needs of stakeholders; (3) Ensuring that all institutional activities are going well and continuously improving; and (4) Proving to all stakeholders that the institution is responsible for the quality of all its activities.

Basically the quality management system is a way of organizational control to succeed in leading and operating an organization related to direction and control in a systematic and transparent way. This success can be achieved through the implementation and maintenance of a management system designed to improve performance while responding to the needs of all interested parties. The organization’s management includes quality management and other management disciplines (ISO 9000: 2008).

2. Literature Review

2.1. Implementation Motive of Quality Management System

When we talk about the implementation of the quality management system in the organization then we will talk about what organization motive in implementing the quality management system. The country’s work force quality could be measured by the standard of higher education of the country. According to Winkel, 1996 (DR Nyayu Khodijah, 2006, p. 97) (4) (7), states Motives are the driving force within a person to perform certain activities in order to achieve a certain goal. The statement is in line with the research that motive is the impetus for the implementation of the quality management system to be used in the organization. It is mentioned that Motive is a state, need, or impulse in a conscious or unconscious person that leads to the occurrence of a behavior. With the encouragement of the organization then we need to know what kind of motivation underlying the organization is and what indicators to trigger it.

So in accordance with some of the above statement, the motive of the implementation of quality management system is an organizational drive to achieve the needs or objectives in accordance with the standard quality management system implemented in the organization.


Two motives categories (internal and external) have an effect on the successful implementation of the implementation of the quality management system, it will be in line with the needs of the organization itself. (Brown et al, 1998, singels et al, 2001, Martinez-Costa et al, 2008) (9). In the statement the dominant motive in the implementation of the quality management system in the company depends on the needs of each organization and how big an organization is.

In accordance with some of the above statement, the authors conclude that the internal motive implementation of ISO 9001: 2008 quality management system is a boost from within the organization to implement the ISO 9001: 2008 quality management system that aims to achieve the goals set (10). Thus the implementation motive is very important for the organization because the beginning of the implementation of a policy will be started from the first motive that must be formulated as possible.

2.2. Benefits of Quality Management System Implementation

The supposed benefits of TQM to higher education include involvement of staff in the improvement of their own working environment; a clearer idea of what the organisation is about and the individual’s role in this; the institution’s ability to be responsible and accountable for the services it provides; a shift of priorities from policy and rule-generation to learning about customer expectations and requirements; improved morale and changed attitudes; intuition and tradition replaced by fact-based decisions; breaking down interdepartmental divisions through teamwork and the development of a common-language to solve problems (although one better suited to higher education than the existing business- oriented language of TQM); (11) Quality of higher education is its ability to produce a steady flow of people with high intelligence and commitment to learning that will continue the process of transmission and advancement of knowledge. Quality Function Deployment (QFD) is one of the Total Quality Management (TQM) techniques which can be applied for process and design improvement. (12) The documentation process in ISO 9001: 2008 (5) shows that policies, procedures and instructions relating to quality have been well planned; (2) Companies that have been ISO 9001: 2008 certified are allowed to advertise in the mass media that the company’s quality management system is internationally recognized. This means improving corporate image and competitiveness in entering global markets; (3) Audit of the quality management system of the company that has obtained ISO 9001: 2008 certificate is done periodically by the registration agency, so that the customer does not need to audit the quality system. This will save costs and reduce duplicate quality system audits by customers; (4) An ISO 9001: 2008 certified organization shall automatically be registered with the registration agency, so if a potential customer wishes to find an ISO 9001: 2008 certified supplier, contact the registration agency. If the name of the organization has been registered with an international registration agency, then that means open new market opportunities; (5) Improving the quality and productivity of management through better cooperation and communication, consistent control system and reduction and prevention of waste due to better internal operations; (6) Increasing quality awareness within the organization; (7) Providing systematic training to all employees and managers of the organization through well-defined procedures.
and instructions; and (8) There is a positive change in the quality culture of the members of the organization, as management and employees are encouraged to maintain ISO 9001: 2008 certificates that are generally only valid for three years. (13)

According to Vincent Gasparsz the benefits of ISO 9001: 2008 certificate are as follows (Gasparsz in (14)): (1) Improve customer trust and satisfaction; (2) Improving corporate quality image and competitiveness in entering global market; (3) Improving quality and productivity through cooperation, solutions and good communication problems, as well as consistent quality control; (4) Increasing quality awareness within the company; (5) Provide systematic training to all staff of the company through well-defined procedures and work instructions.

2.3. Quality Assurance System

Quality Assurance can be defined in different versions, but basically Quality Assurance focuses on continuous improvement to meet customer satisfaction. Quality Management System in general is the process of determining and fulfilling the quality standards of management consistently and continuously, so that consumers, producers, and other interested parties gain satisfaction.

While the Quality Management System of Education in Vocational School is the process of determining and fulfilling the quality standard of education management consistently and continuously, so that stakeholders (students, parents, the world of work, government, teachers, supporting staff, and other interested parties) get satisfaction. Defining the quality of education as meeting the “expectations” of beneficiaries raises a serious validity problem: Expectations are highly subjective and involve cognitive skills like perceiving accurately, values clarification, making sound predictions and decisions. (15)

2.4. Concept of Quality Management System of Vocational School

Education in Vocational School is considered qualified, if the Vocational School is able to establish and realize its vision through the implementation of its mission and able to meet the needs of stakeholders in the form: community needs, the needs of the world of work, and professional needs.

Total Quality Management (TQM), has been extensively identified since the mid-1980s. It is the combination of techniques, theories, strategies of quality in order to obtain the excellent quality. (16) Total Quality Management, TQM, is a method by which management and employees can become involved in the continuous improvement of the production. In other words, Total quality management (TQM) is a firm-wide management philosophy of continuously improving the quality of the products/services/processes by focusing on the customers’ needs and expectations to enhance customer satisfaction and firm performance. (17)

While the application of Quality Management System itself is a way to meet the quality standards of Vocational School education management can be said to be qualified if it meets the standard criteria of the standard quality standards that have been established and described in National Education Standards (18) which include: (1) The Content Standards cover the scope of the material and the level of competence to achieve the competence of graduates at a certain level and type of education. The content standards contain the basic framework and curriculum structure, study load, educational unit level curriculum, and educational calendar; (2) Process Standards include learning process planning, implementation of learning process, assessment of learning outcomes, and monitoring of learning process for effective and efficient learning process; (3) The Graduate Competency Standards include competencies for all subjects, or subject groups and courses or group courses, which contain attitudes, knowledge, and skills; (4) The Standards of Educators and Teachers cover academic qualifications and competencies as learning, physical and spiritual agents, and have the ability to realize educational objectives; (5) Standards of Facilities and Infrastructure, include furniture, educational equipment, educational media, books and learning resources, consumables, and other equipment necessary to support regular and sustainable learning processes, including infrastructure, space for education unit, educator room, administrative room, library room, laboratory room, workshop room, production unit space, canteen room, power and service installation, gym, worship place, playground, venue, other places needed to support a regular and continuous learning process; (6) Management Standards cover education management that provides freedom and encourages self-reliance in academic management of operations, personnel, finance, and other areas of management functions. The scope of this management also includes guidelines governing; Education unit level curriculum and syllabus; Educational/academic calendar, showing all categories of educational unit activities for one year and detailed semi-annual, monthly and weekly; Organizational structure of educational unit; Assignment of tasks among educators; Division of tasks among educational personnel; Academic rules; The discipline of the educational unit should at least cover the discipline of educators, education personnel and learners and the use and maintenance of facilities and infrastructure; Code of ethics of relationships among fellow citizens within the educational unit and the relationship between citizens of education units and the community; and operational cost of education unit; 7) Financing Standards cover investment costs that include provision of facilities and infrastructure, human resource development, and fixed working capital. Operating costs include the salaries of educators and education personnel as well as any allowances attached to salaries, consumables or educational equipment, indirect educational costs of power, water, telecommunication services, maintenance of facilities and infrastructure, overtime, transportation, consumption, taxes, insurance, personal expenses include the tuition fees that must be incurred by learners to be biased to follow the learning process regularly and continuously; and (8) Education Assessment Standards include assessment of learning outcomes by educators, and assessment of learning outcomes by higher education units. Educational institutions with purposes to make bright people of this nation, are hoped to transfer management knowledge and managerial competence to industry holders, to increase understanding and application of knowledge in early steps and produce well-educated businessmen. (19)

2.5. Purpose of Quality Assurance System

Quality Management System has been realized form and its benefits in quality improvement periodically in Vocational School. Although, generally, still symbolic in the design of quality in cabinets and paper. But, at least, a good picture to describe good sign of an organization.

In general, the application of Quality Management System in Vocational Schools (10) has the objectives: (1) Providing guidance on one quality assurance cycle in Vocational School; (2) Maintain and continuously improve the quality of education that Vocational School runs internally to realize its vision and mission and to meet the needs of stakeholders; (3) Ensuring that all institutional activities are going well and continuously improving; and (4) Proving to all stakeholders that the institution is responsible for the quality of all its activities. So, those practical bases can help increasing the quality of school education and it is hoped can compete in labor world and guarantee the independent of the educational institute based on the region autonomy (20).

Knowledge management as a platform in the strengthening of intellectual capital in private universities. In characterizing the three stages of knowledge, the need was evident strengthening knowledge phases creation, capture and acquisition, development and dissemination, through implementation of strategies and policies aimed at managing knowledge in teachers and interns. (21)
2.6. Principles of Quality Assurance System

There are several requirements that must be met by a Vocational School in the application of Quality Management System (1) namely: (1) Principle 1 - Vocational School-Based Institutions: Vocational High Institutions are dependent on their customers: stakeholders (students, parents, the world of work, government, teachers, support personnel, and other interested parties) Vocational High Schools Institutions must understand the wishes of the customers both for now and for the future, to meet customer demands and even strive to exceed them; (2) Principle 2 - Leadership: Leaders set a goal and direction Vocational School Institutions. They must create and maintain an internal environment in which all stakeholders can be fully involved in achieving the goals of the organization; (3) Principle 3 - Employee involvement: Employees at all levels are elements of a Vocational School Institution and their involvement continues to contribute to the interests of Vocational School Institutions; (4) Principle 4 - Process approach: A desirable outcome will be achieved more efficiently if interrelated resources and activities are organized as a process; (5) Principle 5 - Systems approach to management: If interrelated processes can be identified and regulated as a system, their goals and objectives can be achieved more effectively and efficiently; (6) Principle 6 - Continuous improvement: Continuous improvement should be a permanent objective of the Vocational High School Institution; (7) Principle 7 - Factual Approach to Decision Making: Effective decisions come from well-analyzed data and information; (8) Principle 8 - Relevant customer relationships for both parties: The relationship between a Vocational High School Institution and its clients is interdependent, and the interdependence creates more value for both. To meet the needs of quality in education, higher education institutions have also adopted TQM principles to improve the education quality (2). A quality management principle is defined by ISO/TC 176 as a comprehensive and fundamental rule or belief, for leading and operating an organization, aimed at continually improving performance over the long term by focusing on customers while addressing the needs of all other interested parties. (13)

3. Methodology

The method used in this research is descriptive method with survey approach. Descriptive research method is a method used in research to analyze the events that occurred during the research took place. The implementation of descriptive method is not limited only to the collection and compilation of data but through analysis and interpretation of the meaning of data. (22) Survey is the process of collecting information about the characteristics, actions, opinions of a group of representative respondents who are considered as population. Surveys were conducted by taking samples from a population and using questionnaires as a basic data collection tool. (22) Processing is done by descriptive statistical technique that is statically to describe research variable. The purpose of statistical analysis descriptions is to describe the research variables that will be used in the withdrawal of conclusions based on the results of observation samples. The data calculation is done using regression analysis. The population of this study covers all Vocational Schools in Bandung, with a sample of research that is all State Vocational Schools in Bandung, which are 15 schools.

4. Results and Finding

4.1. Description Variable Motive

The motive variables in this study were measured using ten indicators, namely: (1) Meet customer expectations; (2) Meet the demands of the government; (3) Improve school competitiveness; (4) Increase market share; (5) Other schools have ISO certificates; (6) Improve school image/reputation; (7) Reduce operational costs; (8) Improve the quality of services; (9) Improve work efficiency; and (10) Improve customer satisfaction. The ten indicators will be decomposed into 10 statements that are used as a measure of motive variables. Motive variables description obtained through percentage calculation of respondents score as listed in the attachment. Based on the calculation of 45 respondents obtained the results as stated are given below in the table number 1 and 2:

- Maximum Score : 5 x 10 = 50
- Minimum Score : 1 x 10 = 10
- Range : (ScoreMax - ScoreMin) / n = (50 – 10) / 3 = 13

Table 1 Criteria Interpretation Variable Motive Description

<table>
<thead>
<tr>
<th>Category</th>
<th>Score Range</th>
<th>F</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td>37 - 50</td>
<td>30</td>
<td>66.67</td>
</tr>
<tr>
<td>Medium</td>
<td>24 – 36</td>
<td>12</td>
<td>26.67</td>
</tr>
<tr>
<td>Low</td>
<td>10 – 23</td>
<td>3</td>
<td>6.67</td>
</tr>
<tr>
<td>Total</td>
<td>45</td>
<td></td>
<td>100</td>
</tr>
</tbody>
</table>

Source: Respondents Response Computation Results

Perception of respondents about the motive as shown in the table above shows that 66.67% of all respondents surveyed stated in the high category. Thus it can be concluded that the motive of respondents to the implementation of Quality Management System ISO 9001: 2008 is in the high category. The recapitulation of the above scores is more clearly illustrated in the figure number 1 below:

4.2. Variable Benefit Description

Variable benefit in this study was measured using 14 indicators, namely: (1) Better documentation; (2) Reduction of service costs; (3) Improving work effectiveness; (4) Improved work efficiency; (5) Increased quality awareness; (6) Improvement of service quality; (7) Improved productivity; (8) Management improvement; (9) Repair work procedures; (10) Changes in work culture; (11) Improving School Imagery; (12) Increased school competitiveness; (13) Increased customer satisfaction; and (14) Increased market share. 14 indicators will be described into 14 statements made as a measure of the benefit variables. Description of benefit variables obtained through percentage calculation of respondents score as listed in the attachment. Based on the calculation of 45 respondents obtained the results as stated in are given below in the table number 3 and 4:

- Maximum Score : 5 x 14 = 70
- Minimum Score : 1 x 14 = 14
4.3. Variable Obstacles Description

The barrier variables in this study were measured using 8 indicators, namely: (1) Lack of employee skills; (2) Insufficient Human Resource competence; (3) Lack of understanding of work value; (4) Unchanging Work Culture; (5) Lack of leadership assertiveness; (6) Conflict of interest; (7) The legitimacy of bureaucracy within the organization; (8) Stiffness of the organization. Eight of these indicators will be broken down into 8 statements that are used as a measure of barrier variables. Description of barrier variables obtained through percentage calculation of respondents score as stated in the attachment. Based on the calculation of 45 respondents obtained the results as stated are given below in the table number 5 and 6:

- Maximum Score: \(5 \times 8 = 40\)
- Minimum Score: \(1 \times 8 = 8\)
- Range: \((\text{Score}_{\text{Max}} - \text{Score}_{\text{Min}}) / n = (40 - 8) / 3 = 11\)

Table 6: Respondents' Response to Barrier Variables

<table>
<thead>
<tr>
<th>Category</th>
<th>Score Range</th>
<th>(f)</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td>37 – 50</td>
<td>18</td>
<td>40.00</td>
</tr>
<tr>
<td>Medium</td>
<td>24 – 36</td>
<td>23</td>
<td>51.11</td>
</tr>
<tr>
<td>Low</td>
<td>10 – 23</td>
<td>4</td>
<td>8.89</td>
</tr>
<tr>
<td>Jumlah</td>
<td>45</td>
<td>100</td>
<td></td>
</tr>
</tbody>
</table>

Source: Respondents Response Computation Results

The respondent's perception about the obstacles as shown in the above table shows that 51.11% of all respondents surveyed stated in the medium category. Thus it can be concluded that the obstacles that respondents perceive to the Implementation of ISO 9001: 2008 Quality Management System fall into the medium category. The recapitulation of the above scores is more clearly illustrated in figure number 4 below:

4.4. Variable Description of Success Factors

The success variable factor in this research is measured using 8 indicators, namely: (1) Company Motivation; (2) Management Commitment; (3) Personal Role; (4) Effective Communication; (5) Interpretation of Requirements; (6) Organizational Strategy; (7) Continuous Improvement; and (8) External Organizational Environment. These eight indicators will be broken down into 8 statements that are used as measures of success factor variables. Description of the success factor variable is obtained by calculating the percentage of respondents score as stated in the attachment. Based on the calculation of 45 respondents obtained the results as stated in the following table number 7 and 8:

- Score maximum: \(5 \times 8 = 40\)
- Score minimum: \(1 \times 8 = 8\)
- Range: \((\text{Score}_{\text{Max}} - \text{Score}_{\text{Min}}) / n = (40 - 8) / 3 = 11\)

Table 7: Interpretation Criteria Description Variable Success Factor

<table>
<thead>
<tr>
<th>Category</th>
<th>Score Range</th>
<th>(f)</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td>37 – 50</td>
<td>28</td>
<td>62.22</td>
</tr>
<tr>
<td>Medium</td>
<td>24 – 36</td>
<td>14</td>
<td>31.11</td>
</tr>
<tr>
<td>Low</td>
<td>10 – 23</td>
<td>3</td>
<td>6.67</td>
</tr>
<tr>
<td>Jumlah</td>
<td>45</td>
<td>100</td>
<td></td>
</tr>
</tbody>
</table>

Source: Respondents Response Computation Results

The respondent's perception about success factor as shown in the above table shows that 62.22% of all respondents surveyed stated in high category. Thus it can be concluded that success factors owned by respondents to the implementation of ISO 9001: 2008 Quality Management System belong to high category. The recapitulation of the above scores is more clearly illustrated in figure number 4 below:
5. Conclusion and Suggestion

5.1. Conclusion


5.2. Suggestions

The results showed that the aspect of motive, benefit obstacles and success factors of ISO 9001: 2008 quality management implementation generally showed good results with high average category. This is for schools to be improved again to obtain the most ideal conditions. Furthermore, to be able to improve the implementation or implementation of ISO 9001: 2008 quality management system, the suggestions that can be given by researchers are: (1) Managers keep increasing attention to the ISO; (2) Stakeholders should always provide feedback to schools for continuous improvement; and (3) Quality monitoring institutions should conduct periodic audits to provide inputs to quality system managers in schools.

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References