

QUALITY MANAGEMENT SYSTEMS AND PERFORMANCE OF ORGANIZATION

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Abstract

Purpose of this study was to construct research by analyzing the theoretical concepts that has been studied by previous researcher associated with the quality management system and organizational performance. For this purpose, approach used is literature review. The reason for choosing the literature review method for adjustment with the aim of research, to make constructs according to the research that the phenomenon in the form of case studies listed in the journal associated with the study variables. Data was collected by searching the journal through Proquest and Emerald using the keywords viz. quality management system and organizational performance for journal publication. Journals Collected disaggregated by type of quality management systems used and the studied company shall henceforth be read, analyzed, studied, synthesized constructs back into research. Through review suggests that there are various quality management systems in the organization. The Companies need to choose which system best suits with needs of the company. Various quality management system basically has the same dimensions that only use different terms. The construct of the

quality management system is leadership, focus on customers, focus on human resources, focus on operations, measurement, data analysis and information, improved results while the dimensions of organizational performance such as the achievement of financial performance targets and finance is profitability, cost efficiency, effectiveness of the service system and increased sales. There is an effect of quality management system on performance of Organization

Keywords: ISO 9001-2008, Malcolm Baldrige, TQM, Six Sigma, Performance of Organizations

INTRODUCTION

Quality is something that is very important for the success of a company. Quality shows compatibility between customer expectations with the realities of a given company. Quality products and services will provide satisfaction for the customer who will have an impact on increasing sales, increasing profit and sustainability of company. The determination of the quality of service is not easy but requires a management system that can assure that the company's products and services of good quality. There are various quality management systems include six sigma, benchmarking, ISO 9001-2008, total quality management (TQM), Keizen, Malcolm Baldrige. Companies need to choose which system best suits the needs of the company.

Studies related to the quality management system showed different results, there is research that explains that the quality management system supporting the management of knowledge, learning, intellectual capital (Zivanjinovic and Stamirovic, 2009). Other studies explain that the implementation of the quality management system ISO 9001-2008 will have an impact on knowledge management and performance differs depending on the organization. Application of ISO 9001-2008 QMS organization requires more control and *explicit knowledge*, the QMS ISO 9001-2008 will support the performance, contrary to the organization that requires creativity and innovation as well as the *tacit knowledge* of ISO 9001-2008 QMS will hamper the performance of the organization (Kaziliunas and Vysniaukene, 2014). Another study explained that the ISO 9001-2008 QMS positive effect on knowledge management (Psomas et al, 2013; Seyejadeh, 2014; Walczak, 2008).

The application of the Malcolm Baldrige quality management system can be done in business organizations, hospitals and education (Badri, Hasan and Eizabeth, 2006). The incorporation of six sigma methodology and Malcolm Baldrige will improve performance. Six sigma is the development of methods of total quality management with various adjustments.

LITERATURE REVIEW

ISO 9001-2008 Quality Management System

Definition of Quality and Quality Management System

Quality is the degree to which a number of characteristics of the products or services meet customer needs and expectations whether stated or not stated (ISO 9001-2008). Johnston, Chambers, Harland and Slack (2003) defines that quality is conformance with the hope customer. Heizer and Render (2004) defines quality as a total picture of the characteristics of the products / services that have the ability to satisfy customer needs.

Definitions of the above experts assessed that there are some elements of quality, namely;

A total picture of the product characteristics and suitability to the needs and expectations of customers. Definition of quality based on the results of the study are a total picture of the characteristics of the products / services in accordance with customer needs either expressed or not to improve the competitiveness of enterprises

Dainelis, Gutierrez and Montes (2012) describes the quality management is a holistic management philosophy adopted as an approach to improve the competitiveness of enterprises. Dainelis et.al (2012) explained that the dimensions of the quality management consists of leadership, strategic planning, customer focus, information and analysis, management of people and teamwork. The quality management system is a system to ensure the policies and objectives to direct and control an organization in order to achieve the policy and objectives related to quality (ISO 9000-2005).

ISO 9001-2008 is one of a series of standards ISO 9000 is a system intended for evaluating an organization's ability to consistently design, manufacture and deliver quality products and services (Magd and Curry, 2003) The purpose of ISO 9001-2008 is for the precaution of nonconformity , continuous improvement and a focus on customer satisfaction. Focus of this new version is applicable for all organization regardless of size (Psomas, Pantouvakis and Kafetzopolous, 2013).

Dimensions ISO 9001-2008 Quality Management System Based Research Accomplished

Peter and Yu (2011) Dimensions used are the eight principles of quality management include; customer focus, leadership, involvement of people, process approach, system approach to management, continual improvement, factual approach to decision-making and relationship with suppliers for mutual benefit. The results show that the eight dimensions of all the items is significant is the construct to measure the effectiveness of ISO 9001-2000.

Chen and Bor (2012) Dimension used to measure ISO 9001-2008 are eight quality management principles that include; customer focus, leadership, involvement of people,

process approach, system approach to management, continual improvement, factual approach to decision-making and relationship with suppliers for mutual benefit. The results show that the process approach in ISO 9001-2008 not only a technological applications for medical care services but rather the integrated technologies and programs implemented fully encouraged for the benefit of patients.

Psomas, Pantouvakis and Kafetzopolous (2013) the dimensions of the effectiveness of ISO 9001-2008 is a discrepancy prevention, continuous improvement and a focus on customer satisfaction. Quality of products / services and operational performance directly and significantly affected by QMS ISO 9001-2008 effectiveness. Operational performance and significant direct effect on financial performance, while the effectiveness of ISO 9001-2008 QMS indirect effect on financial performance through operational performance.

The results of Kaziliunas and Vysniauskiene (2014) indicate that the pattern of implementation of ISO 9001 different organizations will produce outcomes different performance. Implementation of ISO 9001 QMS in an organization that has a mechanical structure where the ISO will support the performance. In contrast to the organization implementing the organic organizational structure. The existence of ISO 9001 in organization oriented to creativity and innovation will be difficult because of the presence of standards would hamper their creativity thus inhibiting the performance *outcome*, otherwise the organization oriented *control*. The existence of ISO-oriented organization of *explicit* knowledge will support the performance, otherwise the organization oriented *tacit* knowledge.

The research experts that studied then there are many similarities about the dimensions used to measure the effectiveness of ISO 9001 is eight quality management principles which consists of; customer focus, leadership, involvement of people, process approach, system approach to management, continual improvement, factual approach to decision-making and relationship with suppliers for mutual benefit. Dimensional difference occurs only in research conducted by Psomas, Pantouvakis and Kafetzopolous (2013) that is focused on the customer, continual improvement and the prevention of nonconformity.

Results of the study of various experts, the dimensions of which are used by most of the studies on which ISO 9001-2008; (1) Customer focus: Organizations depend on customers and therefore should understand customer needs now and in the future and very concerned with customer expectations; customer involvement in the determination of the quality of products / services; (2) Leadership: Leaders establish unity of purpose and direction of the organization, they must create and maintain an environment that people want to be involved in achieving the organization's goals; visionary leader with a clear vision and vision created to inspire employees to perform better; (3) Involvement of people: People at all levels of the organization

is important in the organization and should be involved to provide benefits to the organization .; the involvement of all levels of employees in the determination of the quality of service; (4) Process approach: The results are to be achieved more efficiently when activities connected with resources that are managed as a process; map documentation process, SOP, control of documents and records; (5) System approach to management: Identifying, understanding and managing interrelated processes as a system contributes to the effectiveness and efficiency of the organization in achieving its objectives; completeness strategic plans and operational plans; (6) Continuous improvement: Continuous improvement of overall organizational performance should be a permanent goal of the organization; Determination of purpose, quality objectives, implementation records, nonconforming product, corrective and preventive actions; (7) factual approach to decision making: Effective decisions are based on data and information; the availability of data and information in decision-making; (8) Relationship with suppliers mutually beneficial: An organization and its suppliers interdependence and have a mutually beneficial relationship to improve the ability of both to create value; the level of involvement in the determination of the quality suppliers. (ISO 9001-2000 modified).

Six Sigma

Definition of Six Sigma

Sony and Naik (2012) defines Six Sigma as a systematic and organized method for process improvement and strategic development of new products and services are conducted with statistical methods and scientific methods of weeks to make a dramatic reduction in the error rate defined by customers. Six sigma is a repackaging of TQM.

Yahia (2012) explains that Six Sigma is a data-driven approach that uses define, analyze, measure, improve and control (DMAIC).

Dimensions of Six Sigma

Banuelas and Banuelas and Antony in Yahia (2012) explains that the successful implementation of Six Sigma program depends on; Management commitment, linking Six Sigma to business strategy, project selection, review and tracking, change the culture, project management skills, connect with suppliers six sigma training, six sigma connect with the human resources.

Motwani in Malik and Blumenfeld (2012) explains that the critical success factors of Six Sigma include adopting a top-down management approach; operates at the level of project/operational and strategic; take execution through six sigma resources; using a quantitative methodology structure (define, measure, analyze, improve and control (DMAIC));

and provide extensive training and learning of the above approaches so that the benefits can be realized.

Malik and Blumenfeld (2012) explain that the average level of six sigma operations between two and four or usual three sigma or 93 right at the beginning. Effective application of Six Sigma and quality management framework can help companies choose their competitive position, such as focusing on the efficiency of internal processes (strategy cost leadership) or differentiation strategy.

Both of the above opinion contains the same meaning as management commitment to have the same meaning by adopting the approach of top management; six sigma connecting with business strategy has the same meaning as operating at the level of project/operational and strategic; project selection has the same meaning as the determination of execution through six sigma resources; project management skills and connect with the six sigma training and six sigma connect with human resources have the same meaning by providing extensive training and learning; review and tracking possess the same meaning using the structure of quantitative methodologies (DMAIC). Dimensions that distinguish between opinion Banuelas Banual in Yahia (2012) and Motwani in Malik and Blumenfeld (2012) is a cultural change.

Total Quality Management (TQM)

Definition and Dimensions of Total Quality Management

TQM is defined as a quality management philosophy that focuses on customer satisfaction, continuous improvement and the organization as a total system (Malik and Blumenfeld, 2012). TQM is an approach to improve flexibility and effectiveness of the competitiveness of the entire organization. Total: involvement of everyone in the organization; Quality: a set of objectives minimal quality in all processes for service delivery and must meet the needs of customers at any time; Management: the commitment of the top management in the quality objectives (Oakland, Haigh and Morris in Noor, Salmiah and Jafar 2011). TQM is a philosophy for managing an organization in a way that can meet the expectations and needs of stakeholders effectively and efficiently without violating ethical values (Chartered Quality Institute in Gandhi, 2014)

Dimensions TQM consists of focus and customer satisfaction, team work, cost reduction, continuous improvement, top management commitment, education and training, and culture of decent work as the content of TQM approach. Reed in Malik and Blumenfeld (2012) distinguishes between TQM content and TQM process and suggest that when TQM content can be a source of competitive advantage of a company. It shows how organizations run TQM practices that potentially could create a sustained competitive advantage.

TQM and Six Sigma difference

TQM focused organizational results rather than business results. In other words, Six Sigma is a methodology that provides businesses with the tools to fix capability of business processes. An increase in performance and a reduction in process variation can create error reduction and produce a major contribution to the increase in profit. Anbari in Yahia (2012) explains that the six sigma = TQM + Strengthening customer focus + additional data analysis tools + financial results + project management

Malcolm Baldrige

Understanding Malcolm Baldrige

Baldrige program performance of special formation called the Malcolm Baldrige quality award. The program is built through a congress on the activity out in 1987 to stimulate and reward the special quality product (Rudolph, Cristian and Charles (2012)).

Dimensions Malcolm Baldrige

Dimensions of the Malcolm Baldrige's business areas consist of; leadership, strategic planning, customer focus, measurement analysis and knowledge management, workforce focus, focus operations, result (Gandhi, 2014). Malcolm Baldrige can be used to measure the performance of businesses, hospitals or education. Dimensions are used for the education sector consists of; leadership; strategic planning; focus on the market, stakeholders and students; Focus on staff and faculty; process management, measurement, analysis and knowledge management; and the results of the organization's performance (Badri, Msood and Hasan, 2006). Dimensions for business and education actually has the same meaning as customers of an educational institution is a student, stakeholder and market consisting of users and prospective students. Dimensions focus on labor in the business have the same meaning as dimensional focus on HR staff and faculty as an educational institution comprised of staff in the study program and the faculty. Dimensions focus on operations have the same meaning as operations management.

Organizational Performance (Enterprise and Business)

Definition of Organizational Performance

Alex, Carlos and Jose (2012) explains that the performance of the business as a measurement of the achievement of organizational goals. The measurement is operationalized by the three organizations report that indicators of business performance, market share, the percentage of new product sales to total sales and return on the investments (ROI).

Almost the same definition proposed by Razaei and Baalousha (2011) which defines the performance of the organization as the efficiency and effectiveness of the organization as measured by combining financial and non-financial factors. The combination of these two factors in the form of finance, operations, number, security, human resources and customer satisfaction.

Opinions are almost the same with both the above opinion expressed by Daft (2008), which explains that the performance of the organization is achieving the organization's goals and strategies. Daft explains that there are two approaches to measuring the performance of the organization, namely (1) the traditional approach using a measuring instrument profitability, market share, sales growth, social responsibility, social quality; (2) balanced scorecard approach is the approach that assesses the performance assessment of the four (4) components include financial, customer satisfaction, internal business processes, growth and learning. The same definitions of organizational performance was also delivered by Bogoroza (2010), which explains that the organization's performance is the achievement of good results in the form of financial and non-financial.

The opinion of experts that studied there are some aspects of organizational performance, namely; achievement of objectives and organizational strategy, effectiveness and efficiency, performance assessment approach. Results of these studies expert opinion, the definition of the organization's performance is the achievement of the goals and strategy of the organization effectively and efficiently.

Dimensions and Organizational Performance Based Research Indicators and Performance Indicators Dimension in Research Accomplished

Research on the performance of the organization has done a lot of experts before them is Alex, Carlos and Jose (2012), entitled *Knowledge management and strategic orientation: Leveraging innovativeness and performance*. Research carried out to 241 research institute of geography and statistics in Brazil. The analytical method used is SEM. Performance measurement business was conducted with the financial and non-financial criteria. Dimensions are used to measure the performance of the business is done by combining financial and non-financial criteria are market share, the sales of new products and services, return on investment (ROI), improved processes, reduced time to respond to market changes. The results show that knowledge management has no direct effect on the performance of the business but through a strategic orientation and innovative power.

Another study conducted by Jho Rhodes and Peter Lok (2008), entitled *An integrative models of organizational learning and social capital on effective knowledge transfer and*

perceived organization performance. Performance measurement is done by using the concept of *balanced scorecard* (Kaplan and Norton, 2002). Dimensions and performance indicators that are used include: Innovation and learning (such as new products, technological improvements, an increase in patents, improvement of human capital); Process (such as a new system, cycle time reduction, process reengineering); Customer satisfaction (such as an increase in the number of customers, repeat purchase, reduction of customer complaints); Finance (such as profit improvement, cost reduction, increased sales).

These four dimensions are grouped into 2 of the financial performance in the form of repair cost advantages and increase market share; and non-financial performance / performance innovation of product development and process engineering.

Another study carried out by Rajabzadeh and Sadeh (2012) entitled *intellectual capital and corporate performance in Iranian pharmaceutical industry*. Research carried out on the pharmaceutical industry from 2004-2009. Measurement of company performance is done by using the concept of the balanced scorecard (Kaplan and Norton, 1992).

Research performance also carried out by Herbert (2012) as the title of " *Linking knowledge process with firm performance of organizational culture*. Research conducted on the mortgage and banking industry in the USA in 2007-2009". Performance measurement is done with the value of the company, operating performance and growth rates. The dimensions of the company's value is measured by indicators of price earning ratio, operating performance measured by return on assets (ROA) and the growth rate is measured by calculating the ratio of the change in total net revenue or sales for 2 years.

Subsequent research conducted by Psomas, Pantauvakis and Kafetzopoulus entitled *the impact of ISO 9001 effectiveness on the performance of service companies*. The study was conducted on 100 companies services in Greek that has been certified ISO 9001-2008. Performance measurement is done with the financial performance, operational performance and quality of services / products. Dimensions and indicators of the above mentioned research converted a large part of *the balanced scorecard* method of assessing the performance of companies / businesses based on financial and non-financial criteria. Results of non-financial assessment which includes innovation and learning, internal business processes, customer satisfaction always should automatically reinvested to increase the value of the company's business that is known as intellectual capital.

Performance measurement in this study using the criteria of achievement of financial and non-financial performance is profitability, cost efficiency, effectiveness and improved sales service system.

Effect of the Quality Management System to the Performance of Organizations

Ionita, Pindiche (2014) explains that the implementation of quality management systems positive effect on increasing revenue and reducing costs, improving the organization's image, competitive differentiation, improve customer satisfaction, facilitate the participation in tenders nationally and internationally, control of all processes within the organization, consciousness (empowerment) staff involvement in achieving organizational goals, understand better management decisions by the employees, leads to improved teamwork, implementation, understand a good attitude towards continual improvement of product processing and management system of the organization.

Rudolph, Cristian and Charles (2012) acknowledges that Malcolm Baldrige award winners can be viewed positively by investors and could increase the company's market value. Research experts about the financial performance of the winner of the Malcolm Baldrige award of 1995 by Helton, Hendrik and Eakins (1994) shows that award winners have an improvement in financial performance.

Kaziliunas and Vysinaukene (2014) explains that the quality management system of ISO 9001-2008 has a different impact on the company. The existences of ISO 9001-2008 QMS in companies which are predominant use of tacit knowledge would hinder the performance instead for a more dominant firm uses explicit knowledge, existence ISO 9001-2008 will support the performance. While Psomas (2014) explained that the ISO 9001-2008 have positive impact to performance.

RESEARCH APPROACH

The research approach used in this study is a qualitative research is a study that collected the data in the form of words written or spoken (Creswell, 2006). The method used is literature review. Reason for the use of the method of literature review is that this research aims to the make the most Appropriate to construct a variable of quality management system and organizational performance, especially for service companies.

Data Obtained by searching the relevant international journal of emerald and proquest by using keywords quality management system and organizational performance. Obtained Journal have been published last a minimum of seven years and then collected, Analyzed, reviewed restaurants and synthesized Returned to construct the most Appropriate form to the service company differentiate with manufacturing companies.

DISCUSSION

Results of the study of literature review above shows the similarities and differences in the dimensions of the quality management system ISO 9001-2008, TQM, Six Sigma and Malcolm Baldrige National Quality Award (MBNQA) can be seen in Table 1.

Table 1. Criteria for Quality Management System

NO	ISO 9001-2008	TQM	Six sigma	MBNQA	Constructs of Quality Management System Criteria
1.	Customer focus	Customer focus and satisfaction		Customer focus and satisfaction	Customer focus
2.	Leadership	Top management commitment	Management commitment	Leadership	Leadership
3.	Involvement of people	Team work, education and training	Human resources management, training, project management skills	Human resources development and utilization	Focus on Human resources management
4.	Process approach			Management of process quality	Focus on Process management
5.	System approach to management		Project selection, review and tracking		System approach to management
6.	Continuous improvement	Continuous improvement		Quality and operational result	Continuous improvement
7.	Factual approach to decision making			Information and analysis	Data, Information and analysis
8.	Mutually beneficial of supplier relationships		Linking six sigma to suppliers	Management of process quality	Mutually beneficial of supplier relationship
9.			Business strategy	Strategic quality planning	Business Strategy
10.		Decent work culture	Culture change		Culture

Source: Compiled by Authors

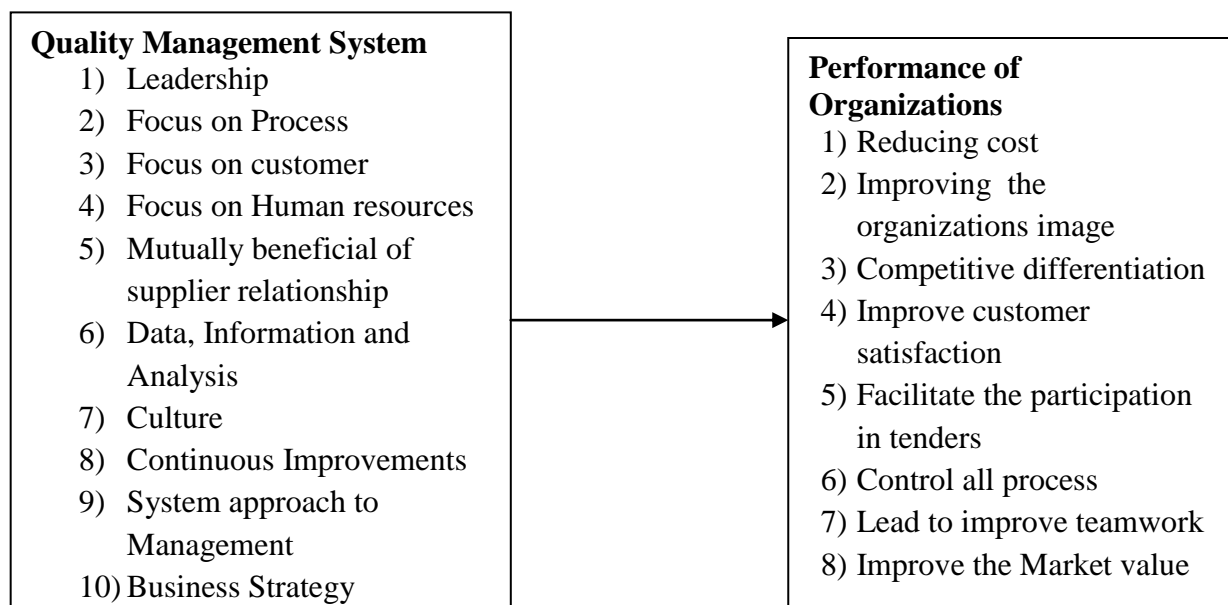
Table 1 above shows that the fourth dimension is used by quality management system has a lot of similarities between the system with other systems. Companies need to choose quality management system that best fits the characteristics and aim desired by the

company. Implementation of the system ISO 9001-2008 more emphasis to 6 procedures are procedures document control, records control procedures, internal audit procedures, procedures nonconforming product, corrective action procedures and precautions. While the implementation of six sigma methodology emphasizes the use of statistical methods for controlling variance of products and services in order to have a good-quality. TQM quality management system is more emphasis on the use of continuous improvement program that utilizes the planning, implementation, checking and actions. Malcolm Baldrige award program emphasizes the determination and measurement results for each activity and the use of knowledge management in order to support the achievement of expected results.

Six sigma methodology can support the program by doing a six sigma. Six sigma level of the company can determine the positioning of the company compared to competitors and it became the basis for the Malcolm Baldrige program for example by determining the strategic plan, measurement, knowledge management and the determination of performance results.

The implementation of quality management systems have positive effect to increasing revenue and reducing costs, improving the organization's image, competitive differentiation, improve customer satisfaction, facilitate the participation in tenders nationally and internationally, control of all processes within the organization, consciousness (empowerment) staff involvement in achieving organizational goals, understand better management decisions by the employees, leads to improved teamwork, implementation, understand a good attitude towards continual improvement of product processing and management system of the organization and market value (Ionita, Pindiche, 2014; Rudolph, Cristian and Charles, 2012 Psomas, 2014). These are shown at figure 1;

Figure 1. Effect of Quality Management System to Performance of Organization



CONCLUSION

Conclusion from this study is that the dimensions of the quality management system in the form of leadership, focus on customers, focus on human resources, focus on operations, measurement, data analysis and information, improved results. The dimensions of organizational performance such as the achievement of financial performance targets and finance is profitability, cost efficiency, the effectiveness of the service system and increased sales.

Determination of the quality management system within a company need to be tailored to the needs of the company. Companies that require more innovation and tacit knowledge need to review the selection of quality management system ISO 9001-2008, especially in the procedures of ISO. Six sigma structure is different because it will inhibit innovation by companies more dominant explicit knowledge. Quality management systems affect to the performance of organization. Quality management system effect to performance of organizations

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