Available online at http://www.nrjp.co.in

Journal of Business Management & Quality Assurance(e ISSN 2456-9291)
Vol. 1, Issue, 01. 12-18p, April, 2017

National Research & Journal Publication

Review Article

ISO Certification: An Introduction

Sachin Kumar*

Department of Information Technology, Samrat Ashok Technology Institute, Vidisha, MP.

Abstract

All the organizations now face competitions from global marketers. There is a continual need to prove the quality / superiority of the goods and services provided to the customers to compete in the present global market. The ISO 9000 enrollment assists the organization in arising and maintaining a competitory advantage over the non-ISO 9000 evidenced firms. The ISO 9000 certification and the training programs evidently help the establishment in meeting its quality objectives, but the ISO 9000 certification is a one-time, non-reoccurring event.

Keywords: *Total Quality Management, Standard Quality, Standardization.*

Introduction

The word "Quality" has many dissimilar definitions laying out from "conventional" to those that are "strategic". Ceremonious definitions of quality usually describe a quality item as; one fits well, is well served or determination be of sustenance free for longer time.

While strategic definitions of quality i.e., "meeting client requirements" is often concerned with identifying and satisfying the demands of the customer in a better mode than the competitors. Quality is the standard of something as measured against other matters of a similar kind: the level of excellence of something (1). Quality is also characterized by great determination as a distinctive attribute or characteristics possessed by someone or something.

Cite This Article: Kumar S. ISO Certification: An Introduction. Journal of Business Management & Quality Assurance. 2017;1(1):12-18.

ISO 9000 Certification

International Organization for Standardization (ISO) is the world's largest developer and publisher of International standards. The term ISO, derived from the Greek word "ISOS", means "equal". ISO is a network of national standards institutes constituting of 162 countries, one fellow member per country, with central secretariat in Geneva, Switzerland, that organizes the system. ISO is a non-governmental establishment that classes a bridge amongst private and public sector(2).

On one hand the member institutes are component of the governmental social organization of their countries or are dictated by their government; on the other hand, other members have their roots unambiguously in the private sector, accepting been set up by national contracts of industry affiliations. The private and governmental member partnership can enable a consensus in arising the standard that

meet the demands of business and more across-the-board needs of the society. Constituting the world's largest developer of standards, ISO has developed and issued more than 16500 international standards amongst 1947 and 2008. The international criteria built up by ISO ranges from agricultural and structure, through applied science to medical devices. The newest of all is the standards for information technology developments(3).

When products, organizations, machinery and devices work considerably and safely, it is often because they meet standards. Standards build an enormous positive contribution to most aspects of human life. Standards ensure suitable characteristics of products and services such as quality, environmental openness, safety, reliability, and efficiency at an economical mode. Standardization of screw threads keeps the table, ceiling fan and the wheels of a truck together and solves the repair and sustainment problems. Calibration helps us to adopt exchangeability conception and so that the purchase price and the price of up-keeping a production will be low. Standards demonstrate an international consensus on terminology which makes engineering transfer easier and safer(4).

The standardized dimension of freight containers arrives at the international trade faster and more economic. The standardization of ATM cards makes it accommodate to all ATM machines, irrespective of the owner of the machine. Standardization represents on danger signals and warnings will avoid misunderstanding. Standard computer protocols allow the vendors to lecture in the same platform. The standards are the consequence of a particular standardization attempt approved by a distinguished authority(5).

The industrial standards can be categorized into three:

- International standards,
- National standards or Industry standards, and
- Company standards.

The demand for international standards is necessity for growing international trade. There are a number of voluntary standards organizations bringing for developing international standards. The ISO 9000 series of quality standards and metric standards are cases of international standards. The national standards constitute national trade association, engineering companies and national testing societies which are contributing to the development of standards and the method acting of testing.

The organizational standards are arising by the firms themselves. Some examples take account of letter pad, size and color of the paper used in communication, conveyer speed, dress code etc. The standards help user by giving them a convenient objective base for purchasing the products of correctly quantity and using that product in the proposed manner to derive satisfaction. In a manufacturing action, the quality of trade good produced calculates considerably upon the case of materials used in the procedure.

If the aim of uniformly high serviceableness of the items manufactured, standards should form the basis of all leverages for materials which are demanded for the product of that product. By exercising standardization the number of items produced could as well be abbreviated, thereby the character of an individual item increases and this can lead to most economic price(6).

As quality became a major concentrating of business during the world, several establishments developed standards and guidelines to enable effective selling of products and services globally. To standardize the quality requirements, that is to be adopted by the organizations approximately the world, a specialized office for calibration, the International Organization for Standardization (ISO) has been formed.

ISO was born from the Federal of two organizations. The ISA (Instructional Federation of the National Standardizing Associations) accomplished in New York in 1926 and the UNSCC (United National Standards Coordinating Committee) demonstrated in 1944. In October 1946, delegates from 25 countries, assembling at the Institute of Civil Engineers in London, decided to create a new establishment, and the objective of that organization was to facilitate the growth of International standards(7).

The new establishment, ISO, formally began operating on 23 February 1947. In April 1947 a meeting in Paris acquired a recommended list of 67, ISO technical commissions (TC's) about two thirds of which were based on the previous ISA committees. By the early 1950's Technological Commissions were beginning to produce what were known at the time as "Recommendations". The basic idea of postwar international Standardization constituted to derive international standards from those already developed nationally, then to re-implement them across the country. ISO's recommendations were therefore only intended to influence national standards.

After emerging several inspection system papers in the 1950's the US military later integrated them into a set of necessities documents and issued them in December 1963 with the names of Inspection System Demands and Quality programme Necessities. Thereafter, documents issued were on standard articles in procurement, contracts, commanded control over final review and testing, then on "Calibration system Requirements".

Similarly, Canadian series of standards were emerged, in four levels, in 1970's and the British standards constituted issued, in three levels, in 1979 as quality management systems. Meanwhile in December 1979 the United States emerged Generic Guidelines for quality systems. This was a menu of quality management elements and each organization could prefer the elements which they found were helpful, appropriating them an almost infinite degree of tailoring.

Since dissimilar standards for different Countries were creating problems to international business deal, necessity was felt for developing internationally recognized quality management standards. The ISO proficient committee (TC) 176, "Quality Management and Quality assurance", was hence established in 1979. The first standard emerged by ISO 176 was ISO 8402 (in 1986) which standardized quality management nomenclature. It was followed in 1987 by ISO 9001, ISO 9002, and ISO 9003, which provide the requirements for quality Management system's operated by establishments with exchanging scopes of action, from those including an R&D occasion, to those uniquely carrying out service and maintenance. These standards were completed by ISO 9004, allowing for guidance on quality management establishments. These standards were later on brushed up in 1994, and then extensively revised in the year 2000(8).

ISO launches the growth of new standards in reaction to sectors and stakeholders that express a distinctly established need for them. When an industry sector or other stakeholder group communicates its requirement for a standard to one are of ISO's national members, the latter then proposes the new work item to the relevant Technical committee of the ISO in that area.

When the new work item does not relate to existing committees, proposals may also be made by ISO member to set up new technical committee to cover new fields of activity. To be accepted for growth, a proposed bring item must receive the absolute majority support of the taking part members of the ISO technological committee which, amongst other criteria, asserts the "global relevance" of the aimed item. In increase to the technical committees that address to standardization in a particular field, ISO also has policy

development Committees addressing the standardization needs of nations(9).

ISO standards are generally assigned a catalogue number mechanically. When the first output of ISO's Technical Committee 176 was nearing pass completion, ISO was already approach a amount of 9000 issued standards. ISO accomplished even then that ISO/ITC 176's standards would have a substantial impact and so determined to give the series the following available round figure-9000-as a assignment, because round figures are more memorable. The ISO 9000 and ISO 14000 standards classes are in the middle of the ISO's most widely felt standards ever. The ISO 9000 has get an international acknowledgment for quality requirements in business to business and business to customer dealings and ISO 14000 set standards an organization needs to maintain in terms of its environmental challenges(10).

The most recent version of ISO standards is called the ISO 9000: 2000 family of standards. The ISO 9000: 2000 set of standards include three quality standards:

- ISO 9000: 2000,
- ISO 9001: 2000,
- ISO 9004: 2000.

In these standards ISO 9001: 2000 constitutes requirements, while ISO 9000: 2000 and ISO 9004: 2000 presents' guideposts. All of these standards are cognitive operation standards (not product standards). The documentation awarded to an establishment with respect to the compliance of these criteria is ISO 9001: 2000 authentication(11).

Under the next section we will try to put on the actual definition and the standard principals of ISO certification for better understanding and example. The main sources of the report are the various documents in which these principals are stated as in original form(12).

The ISO 9000: 2000 is the Quality Management Systems (QMS) - basic principle and vocabulary talks about the fundamental conceptions related to QMS and allows for the terminology used in other two standards.

1. The ISO 9001: 2000 is the Quality Management Systems (QMS) necessities-the standard used for readjustment by demonstrating accordance of the QMS to clients, regulatory, and the organizations own necessities.
2. The ISO 9004: 2000–Quality Management System (QMS)- guidelines that an organization can use to establish a quality Management System focused on improving performance.

The ISO 9000: 2000 standards structure has four major sections:

- Management Responsibility.
- Resource Management,
- Product realization, Measurement Analysis,

And improvement and are supported by the following eight principles (13-15):

Principle I:

Customer Focused Organization:

Organization depend on their customers and therefore should understand current and future customers needs, meet customer requirements, and strive to exceed customer expectations.

Principle – II:

Leadership Leaders Establish Unity of Purpose and Direction of the Organization:

They should create and maintain the internal environment in which people can become fully involved in achieving the organization's objectives.

Principle – III:

Involvement of People:

People at all levels are the essence of an organization and their full involvement enables their abilities to be used for the organization benefit.

Principle – IV:

Process Approach:

A desired result is achieved more effectively when related resources and activities are managed as a process.

Principle V:
System Approach to Management:
Identifying, understanding, and managing a system of interrelated processes for a given objective improve the organization efficiency and effectiveness.

Principle – VI:
Continual Improvement:
Continual improvement should be a permanent objective of the organization.

Principal – VII:
Factual Approach to Decision Making:
Effective decisions are based on the analysis of data and information

Principle – VIII:
Mutually Beneficial Supplier Relationship:
An Organization and the suppliers are interdependent, and a mutually beneficial relationship enhances this ability of both to create value.

The ISO 9000 enrollment provides a number of gains to the establishment, includes higher comprehended quality, improved customer expiation, Competitive advantage and abbreviated customer's quality audits. Internally ISO 9000 registration brings better documentation greater character awareness, positive ethnical change and increased efficiency and productiveness. Also ISO 9000 certification allows for a basis for accomplishing uninterrupted improvement. Prompt and effectual delivery of the productions and service is able to be ensured complete the authentication(16).

The ISO 9000 series is the received of quality accepted by the almost each and every one countries. The acceptation of these standards is rapidly spreading throughout the globe. It simply makes sense to adopt one quality standard that can be used by cooperation throughout the global community as a trademark for verifying the quality of services and products provided by an organization. It is less costly than complying with the quality standard issued by various corporations or countries to deal business with them(17).

Total Quality Management and ISO 9000 Certification
The consumers evaluate the quality of a product or service through direct purchase and use of that product. The satisfaction gained by that product will determine the repeated purchase and recommendation of that product to others. But in the present time, it may not be viable and possible for the customers to buy and test all the products available in the market. The customer determines the quality of the product through determining whether that is evidenced by a reliable agency. The most reliable, most wide accepted and applied process certificate for the establishments in the world is the ISO series standards.

The clients of an ISO 9000 certified establishments consider "ISO 9000 certification" as a equivalent word for quality. The consumers anticipate the best quality products from an ISO 9000 certified organization. The ISO 9000 certification establishes and declares a starting point for an establishment in its quality efforts. The ISO 9000 certification demands a total transformation of the management culture from the traditional system to the exercise of a new philosophy – The Total Quality Management, for delivering better quality products and services and thereby meeting client expectations.

The ISO 9000 authentication will provide a foundation and complementary approach path to quality by focusing on process documentation and maintenance of records. Also the latest revision of the ISO 9000: 2000 has been strongly TQM oriented.

It is imperative form for the ISO 9000 specialized organization to practice TQM principles for bearing better quality products to the customers. ISO 9000 certification provides

a responsibility for the organization to provide better quality products to the customers, since the customers anticipate the quality productions from the ISO 9000 evidenced organization. By exercising TQM principles the ISO 9000 evidenced organization are able to work inside-out on a common target of fulfilling the customers and enjoying the customers.

The benefits of ISO 9000 registration include:

- Selling advantage,
- Improved usage of time and materials,
- Improved efficiency and gainfulness,
- Increased customer satisfaction,
- Consistent quality and timely delivery,
- Fewer re-analysis of samples,
- Ameliorated functioning from suppliers,
- Lower reject rates, rework, and
- Warranty costs.

These benefits can be achieved done the practice of TQM principles along with the ISO certification.

Conclusion

The ISO 9000 and TQM practice cannot be measured as autonomous and separate conceptions. These two concepts are intertwined and complement each another. The organization should not consider the ISO 9000 certification as an end in itself. It is the responsibility of the managements of ISO 9000 certified organization to ensure the practice of TQM principles after their ISO accreditation.

ISO got a volatile development in membership between 1994 and 2003. The total appendages increased by nearly 50% (from 100 to 147) contributing to make ISO a truly global organization (http/.www.iso.org). In the same period, ISO's reach to different classes of stakeholders also increased dramatically, done both national standard bodies' network and the extended corporation with a large variety of international establishment, admitting governmental and non governmental entity. In this circumstance it is worthy to analyze, to what magnitude the ISO 9000.

References

1. Acharya U, Ray S. ISO 9000 certification in Indian industries: a survey. Total Quality Management. 2000; 11(3): 261-6.

2. Sampaio P, Saraiva P, Guimarães Rodrigues A. ISO 9001 certification research: questions, answers and approaches. International Journal of Quality & Reliability Management. 2009; 26(1): 38-58.

3. Chandrasekaran R, Karthikeyaan S. Measure of operational performance before and after implementation of ISO 9000 certification in pumpsets manufacturing industries in Coimbatore, India. Journal of Contemporary Research in Management. 2013; 4(2).

4. Issac G, Rajendran C, Anantharaman R. Significance of quality certification: the case of the software industry in India. The Quality Management Journal. 2004;11(1):8.

5. Arora A, Asundi J. Quality certification and the economics of contract software development: A study of the Indian software service companies. NBER working paper. 1999; 7260: 25.

6. Singh C, Sareen K. Effectiveness of ISO 9000 standards in Indian educational institutions: a survey. International Journal of Services Technology and Management. 2006; 7(4): 403-15.

7. Arora A, Asundi J. Quality Certification and the Economics of Contract Software Development A Study of the Indian Software Industry. National bureau of economic research; 1999.

8. De Silva G. Basic metrology for ISO 9000 certification: Routledge; 2002.

9. Pankhania T, Jani H. Impacts of Globalization on Industrial Productivity: A Survey Conducted in Industries at Vitthal

Udyognagar of Anand District of Gujarat, India. International Journal of Applied Operational Research. 2012; 2(1): 13-22.

10. Mudgal RK, Shankar R, Talib P, Raj T. Greening the supply chain practices: an Indian perspective of enablers' relationships. International Journal of Advanced Operations Management. 2009; 1(2-3): 151-76.

11. Padma P, Ganesh L, Rajendran C. A study on the critical factors of ISO 9001: 2000 and organizational performance of Indian manufacturing firms. International Journal of Production Research. 2008; 46(18): 4981-5011.

12. Karthi S, Devadasan S, Murugesh R, Sreenivasa C, Sivaram N. Global views on integrating Six Sigma and ISO 9001 certification. Total Quality Management & Business Excellence. 2012; 23(3-4): 237-62.

13. Lin C, Wu C. Managing knowledge contributed by ISO 9001: 2000. International Journal of Quality & Reliability Management. 2005; 22(9): 968-85.

14. Wilkinson G, Dale B. An examination of the ISO 9001: 2000 standard and its influence on the integration of management systems. Production planning & control. 2002; 13(3): 284-97.

15. Lee PK, To W, Yu BT. The implementation and performance outcomes of ISO 9000 in service organizations: an empirical taxonomy. International Journal of Quality & Reliability Management. 2009; 26(7): 646-62.

16. Zeng SX, Tian P, Shi JJ. Implementing integration of ISO 9001 and ISO 14001 for construction. Managerial Auditing Journal. 2005; 20(4): 394-407.

17. Jalote P. The success of the SPI efforts in India. Software Quality Professional. 2001; 3(2): 36-40.

Corresponding Author Information
Praveen Kumar, Institute of Engineering, Jiwaji University, Gwalior, MP.