Original Article

ISO Certification and its Implications: A Theoretical Perspective

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Abstract - Globalization brings about competitiveness in the world market, and certain products and services become obsolete in a short period. For public and private organizations, survival in the open market becomes crucial. To enhance survival amid competition in terms of quality of services International Organization for Standardization (ISO) Certification has become one of the most important steps. ISO gives certification all over the world to help companies/organizations for continuous improvement, cost-effective and more customer satisfaction by utilizing proper documentation, the Plan-Do-Check-Act method, applying the process approach, and involvement of all stakeholders in the whole process of the organization, which is different from the traditional model of providing services. ISO lays down the standards and emphasizes products, services, and systems while ensuring efficiency, quality, and security for the organization and the clients.

1. Introduction

The international organization for Standardization (ISO) has been operating since 1987 with the maiden version of the ISO 9000 Quality Management System. It has been used as a tool for quality management and services worldwide in various manufacturing and service sectors. With time, the version changes in many ways, mostly based on the participation and feedback of the organizations that have implemented the system. The early version of ISO 9000 was mainly used by the certified organization that maintained documentation per the certification requirements. These documents were audited internally and analyzed for continuous improvement and progress in customer care, services, and management. The system proves to be effectively implemented as it brings about objectivity and accountability, making the organization more transparent, customer-oriented, and sustainable. It also reduces errors as the process enables an organization to win customers' loyalty and go even to the extent of establishing a brand name.

The ISO 9000 series came into existence to facilitate international trade. Before the birth of the series, the organization carried on with their normal business as per their norms and system; this has subjected many organizations to face audits of different kinds, all aimed at assessing the same system that the supplier organization adopted to meet the requirement of different customers. The system is found to be defective and not in the interest of international trade and international standards. Since the ISO 9000 series came into existence, it has greatly impacted international trade. The standards that have been laid down apply to various sectors such as industries-hardware, software, processed materials, and services. These standards are mainly prepared by the Technical Committee 176 (TC) of the ISO.   After seven

years of using series 9000, in 1994, ISO 9001 series was published as a new/second version, which later gave way to ISO9001:2000 or ISO9001:2K version.

The central secretariat of the International Organization for Standardization is located in Geneva, Switzerland, which is responsible for developing international standards. The main work of developing the standards is done by the Technical Committee appointed by ISO for a specific purpose; the committee is mainly responsible for quality management issues and is known as TC176, which is composed of highly experienced people from different countries of the world. TC176, in turn, has smaller sub-committees responsible for specific functions such as:

1. SC1- responsible for developing the concept and vocabulary of ISO
2. SC2- responsible for developing standards for the quality management system
3. SC3- responsible for developing associated standards (e.g...…14000).

SC2 is a secretariat at the British Standards Institute (BSI). All sub-committees work as a working group (WG), each responsible for a specific function. The Technical Committee meets annually, where 300-350 people participate from different countries. At first, standards development is done by working draft or committee draft, which is deliberated/ discussed and is sent to draft international standards (DIS), then to final draft international standards (FDIS), which finally becomes international standards. It takes a long time to develop standards; some take more than three years.

The constant change in management and the customers' growing requirements results in need to update,

revise, and change the initial version of ISO from documentation to moves toward performance and Risk-Based Thinking (RTB). The versions have been modified many times to meet frequently changing standards relating to the requirement of the organizations. Today there are various technical and industrial standards worldwide to measure, analyze and compare the organization's performance. The most widely accepted ISO standards are:

- ISO9000: Quality Management Systems-Fundamentals and Vocabulary
- ISO9001: Quality Management System
- ISO 14001: Environmental Management System
- ISO 27001: Information Security Management System
- ISO 22001: Food Safety Management System: Application to Food Industry
- ISO 50001: Energy Management System
- ISO/TS 16949: Automotive Industry
- ISO 45001: Occupational Health and Safety Management System.

With the expectation and feedback from organizations and customers for better quality services and products along the line of better management of resources, i.e., human resources, financial resources, and time management, ISO standards began to be revised for developing universal standards that will enable organizations to achieve their goals and continuous improvement as well as customers' satisfaction. The technical committee of ISO comes out with standards based on the following:
1. Plan-Do-Check-Act (PDCA)
2. Process Approach
3. Continual Improvement
4. Goal of Customers Satisfaction
5. Involving all functions of the organization.

When laying down the standard, ISO emphasizes products, services, and systems; simultaneously, it tries to ensure efficiency, quality, and security for both the organization and the clients.

2. ISO 9001 Versions
2.1. ISO 9001:2000 (Quality Management System)
ISO 9001:2000 is the only series in the ISO family that requires certification of conformance by an external agency. Conformance is needed for different purposes, such as contractual requirements, regulatory requirements, market conditions, customer preferences, and the company's goal. An earlier version of the standards adopted a procedural approach to the quality management system. However, the revised version adopted the process approach to develop, maintain and improve the effectiveness of the quality management system to meet customer requirements and enhance their satisfaction level. It is a mechanism to include all sets of interrelated and interacted activities such as; input- customer requirements, activities- active involvement of managers and customers through the process, ensuring the effectiveness of all interacting processes in product realization meeting customer requirements, resources- identifying resources to get

optimum results, control-identification and evaluation of process performance and assessing their effectiveness based on requirements, in this version role of top management changes for continual improvement in setting quality objectives and customer-oriented. Many organizations complete their job once the top management selects Management Representative (MR). Still, this quality management series addresses top management's keen involvement in the implementation process and its progress. The series provides guidelines for demonstration of the commitment towards the development and implementation of a quality management system and to have effective and continuous improvement, like developing quality policy and ensuring their objectives, a well-organized system of communication between the management and the customers, regular management review of progress and ensuring resources availability. To understand customer requirements, the top management must first communicate with the customer, which may not be easy, but the communication gap creates hurdles; in the long run, the 9001:2k series gives due recognition to the commitment of the top managers at all levels of implementation.

2.2. ISO 9001:2008
The revision of ISO 9001:2008 QMS standards is structured, like the previous versions, upon eight quality principles. These quality principles are comprehensive and fundamental principles expected for leading and operating an organization to achieve its goals and improve performance on a long-term basis. It mostly addresses the customer's satisfaction but does not neglect all other stakeholders. The eight principles described by ISO 9001:2008 standards are Customer Focus, Leadership, Involvement of People, Process approach, System approach to management, Continual improvement, Factual approach to decision making, and mutually beneficial supplier relationship.

To use these eight principles and effectively implement them, three things need to be focused on: leadership, top management commitment, and active involvement of the top management. Experience shows that a lack of enthusiasm from the top management often results in the absence of monitoring and evaluation of the progress achieved by the organization. ISO 9001:2008 focuses on leadership and top managers; it tries to bring them to commit to the cause of the new version for quality improvement and management. Unless top managers get actively involved from the beginning of the certification, certified organizations tend to reduce the quality of their products and services. For this reason, a new version makes it mandatory to organize a one-day orientation for top management, covering an overview of the series, management responsibilities, formulation of the quality policy, identification of goals and expectations, and the extent of appointing steering committee/task force to look into the step-by-step implementation of the series.

One of the best instruments for continual improvement and to ensure customer satisfaction is the process-based quality management system developed by ISO 9001:2002, as shown in the figure below.
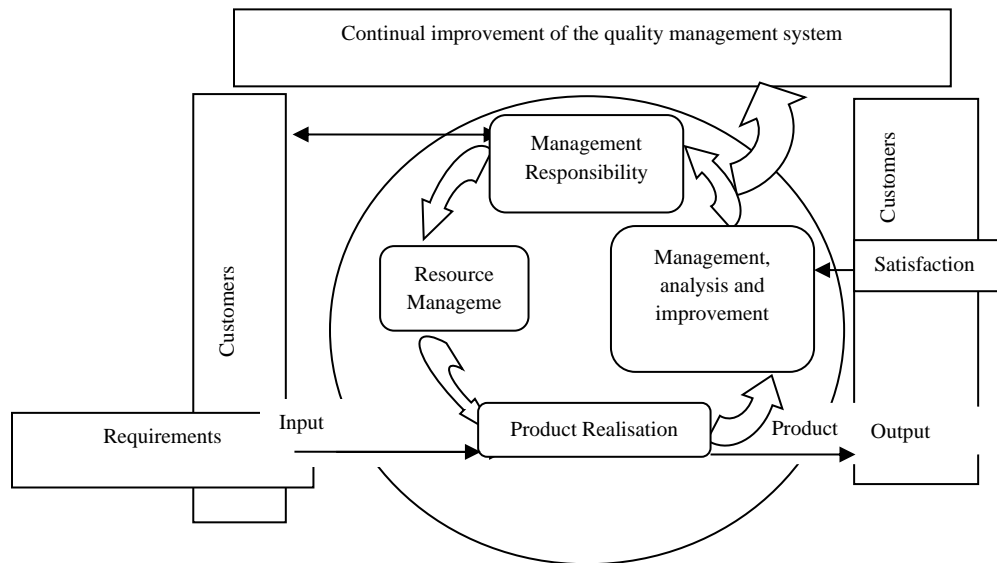
Fig. 1 Model of a Process-based Quality Management System

ISO 9001:2008 QMS standards describe a supply chain; where mentioned in the figure, 'Product' refers to the product intended for the customer or the product required by the customer, including services. It also applies to any intended output resulting from the product realization process.

2.3. ISO 9001:2015

The ISO 9001:2008 version was replaced by ISO 9001:2015 version. The standardization movement has always set a task in itself for serving a higher public good. ISO 9001:2015 is a detailed criterion for the quality management system, and it has become the only standard in the family that can be certified. An attempt was made to minimize prescriptive requirements, but it requires the organization to determine procedure documents to ensure conformity. The standard emphasized and clarified the requirement to apply a process approach to the quality management system and stressed leadership more than in the previous series. Since its formulation, more than one million companies and organizations in over 170 countries have been certified to ISO 9001, including large or small organizations, regardless of their area of operation. The standard ensures customer satisfaction, a consistent supply of quality goods and services, and profit in the business. The quality principles include motivation and implication of top management and continual improvement.

The first requirement in QMS under ISO9001:2015 is specified as SCOPE; the scope provides for QMS within the organization as:

1. An ability to demonstrate consistency in providing goods and services;
2. Meeting the requirements of the customer;
3. To ensure that products and services comply with statutory and regulatory requirements;
4. Consistency in ensuring customer satisfaction;
5. Continued improvement to the process and effectiveness of the Quality Management System.

Like the previous standard version of ISO, ISO 9001:2015 was developed with the quality management principles- Customer focus, Leadership, Engagement of people, Improvement, Evidence-based decision-making, the Process approach, and Relationship management.

To use these eight principles and effectively implement them, three things need to be the focus: leadership, top management commitment, and active involvement of the top management. Experience shows that a lack of enthusiasm from the top management often results in the absence of monitoring and evaluation of the progress achieved by the organization. ISO 9001:2008 focuses on leadership and top managers. It tries to bring them to commit to the cause of the new version for quality improvement and management. Unless top managers get actively involved from the beginning of the certification, certified organizations tend to reduce the quality of their products and service. For this reason, a new version makes it mandatory to organize a one-day orientation for top management, covering an overview of the series, management responsibilities, formulation of the quality policy, identification of goals and expectations, and the extent of appointing steering committee/task force to look into the step-by-step implementation of the series.

The top management is expected to demonstrate commitment and determination to implement the series and actively participate in its implementation processes. At the same time, ensuring that the organization and stakeholders are equally informed of all the legal requirements. The top manager must also identify the organization's goals to provide quality products at a profitable base, achieve customer satisfaction, and reduce waste and duplication at all levels. Quality Management Principles (QMP) are the fundamental part of the QMS of an organization. There is a strong need to review the

vision and the mission statement when applying the process and requirements of ISO 9001.

3. Quality Management System (QMS)

The term quality is a very subjective word. Every person and every organization has their perception of quality. There are many definitions of quality given by people or organizations. Philip Crosby defined four quality absolutes:

- Quality must be defined as conformance to requirements, not as 'goodness.'
- The system for causing quality is prevention, not an appraisal
- The performance standard must be zero defects; not close enough.
- Quality is measured by the Price of Non-Conformance (PONC), not by indices.

The Organization process of a Company, which applies ISO 90001 and all related QMS principles and requirements, follows a plan–do–check–act approach (Plan-Do-Check-Act, PDCA). It is a structured approach to continuously improving services, products, processes, and systems. This model was originally designed by Walter A. Shewhart (USA) in the form of a Plan-Do-Check. Later, Edward W Deming was modified as Plan-Do-Check-Act, now known as the Deming cycle or PDCA cycle. The model has universal applicability in systematic data-based problem-solving for planning, controlling, and improving performance in any area.

The Deming Cycle
Plan. The organization has to identify the significant processes, prioritize the opportunities to enhance customer satisfaction, and continuously improve its operations' performance. This overall responsibility is assigned to top management, the quality officer, and the team. The organization has to plan for the formulation of a cross-functional team and plan their training and must plan to determine the applicability and boundaries of QMS. The organization must recognize an opportunity and plan a change.

Do. The realization of the quality management system begins. Understanding products/services offered, analyzing internal and external issues, understanding and analyzing expectations and needs of stakeholders, and understanding the requirement of ISO. As objectives and processes are introduced and implemented at this stage, resources are available, and responsibilities a r e determined. It is important to ensure that all stakeholders are capable and aware of handling their responsibilities to have a quality management system. Test the change at this stage as a small case study.

Check. Quality management needs to be checked regarding its conformity to standard requirements, products, and services, check on the enhancement of customer satisfaction, and check on conformity to organization policy and process to make sure that the management system

functions within the plan at all stages are to be monitored with regards to legal, products and services specifications and requirements and within the objectives of the QMS. The results are documented and submitted to the top management.

Act. Based on the internal reports, the top management formulates written evaluation reports. This document is called management review. The results will be evaluated on their performance level. If necessary, modification can be initiated. Operations-related processes are enhanced, and new strategic goals are derived and set.

The concept of underlying quality ISO 9001emphasis on meeting the requirement of the customers, in terms of needs and expectations, on services and products. Therefore, when the quality satisfies the needs and requirements of the user, both stated and implied, and also statutory and legal. Thus quality is fitness for the purpose. In an organization, quality is what the customer says he needs, not what the supplier believes to be satisfactory; ultimately, the customer judges the quality of products and services. This emphasis on total effort in the business, both at the management and clientele level, is often considered as 'total quality. It attempts to expand the quality assurance principle beyond management and manufacturing operations into the other areas of stakeholders. Total quality control is aimed at three-phase 3Ms (machine, material, and method) to achieve the desired output. It is also aimed at integrating all the efforts in the organization toward quality management.

4. Implications of ISO Certifications

Over the years, ISO became more like a traditional intergovernmental organization and less like a non-government organization (NGO). It is mainly due to the growth of its membership, and most of its members are government agencies. It has shaped the face of competition in the public and private sectors, and fortunately, this healthy competition in terms of services and products has shaped innovation. Globalization pressure encourages, Standardization of processes, and new standards are constantly needed for new processes and products. In the late 1980s, ISO entered a new realm. It came to play a major role in setting standards for quality management and extending its application to environmental fields, security, social responsibility, management system, food safety, tourism, second-hand goods, and nanotechnology. ISO standard settings are demand-driven and also play an entrepreneurial role as it helps create demand for services they can provide. It also continues to provide the standard needed for technical infrastructure that contributes to the global economy.

The government can benefit greatly from ISO standards, supporting public policy by getting expert opinions and opening up world trade. Many governments implement international standards; therefore, this integration ensures clarity worldwide for trade. Businesses can be seen to benefit from ISO standards as they can help cut costs by improving systems and

procedures put in place. In addition, environmental impacts may be reduced, and they can access new markets and customers. For example, implementing ISO 9001, the quality management standard, ensures quality and safety concerning processes and products; as a result, customer satisfaction may be increased due to the trust created by ISO standards. It leads to why ISO standards are beneficial to consumers' trust. Products and services that comply with defined standards give consumers confidence that they are safe and that the services and products are of good quality.

Standardization aims to streamline production in organizations and industries to ensure the safety of products and consistency and promote global competitiveness and collaboration to bring about management responsiveness, customer involvement, and satisfaction. It is now realized that industries or organizations cannot be truly considered standardized unless ISO-certified. Organizations and business sectors acquired their credentials and recognition for their brand with the help of ISO certification. The benefits of Standardization may be varied, but some of the important ones are:

International Business. Globalization has united the world to move into better trade relations, but Standardization has been instrumental in enabling companies to enter the global market by breaking trade barriers. The existence of export and import regulations minimized the problems of international transactions. Purchasing equipment from the international market becomes easier and reasonably priced. Standardization allowed seamless collaboration on various projects, technologies, and commercial endeavors.

Consumer Safety and Satisfaction. ISO standardization has constantly updated the protocol to be able to bring maximum satisfaction to the customer. It also enables consumers to be proactive while choosing products and services given by companies. At the same time, in-built customer confidence in the product after certification tends to be more reliable. More recently, products that harm the environment evolved into eco-friendly, which is also made much safer under the standardization process.

Industry Participation. Industries that aim to become leaders opted for ISO Certification and are even made participants while formulating standards. Customers tend to judge the quality of products, and certification offers credibility and may be considered a commitment to the customer's judgment. In today's business world, ISO certification is often considered a legal and contractual requirement.

Increased Productivity. ISO certification enables companies to modernize their products, positively enlarge their purchase and grow internationally. Increased efficiency results in greater innovation and operational growth, leading to greater growth in market share. ISO standardization enhances technology-based efficiency, cuts costs, and minimizes errors.

5. Benefits of ISO Certification

ISO certification helps and supports staff by providing a platform for continued training and development on quality management, making them more equip themselves with the desired skill and technology-know-how to handle the situation that calls for, and at the same time, improve the level of customer satisfaction as the standards requirement conformed to the requirements of the customer. It helps in the growth of an organization's credibility in the global market, enhancing their level of survival under huge competition pressures, and increases profitability and savings for both small and medium organizations, which eventually leads to the enlargement of the company with greater output and more advance in terms of technology utilization and service delivery. It also ensures an efficient management process to monitor the production process and open the doors for further improvement. It even highlighted the shortcomings of having a timely fixation. The Quality Management System provided formalized system containing documents, procedures, processes, and responsibilities for quality objectives. The QMS also gives guidelines on important steps such as on-time delivery, overall performance, and profitability. The certification enforces a continuous improvement strategy to reduce waste and improve efficiency. It also tries to identify key areas and priorities of customers. Moreover, streamline the process based on the customer's expectations and needs to reinforce their loyalty to the company. ISO 9001 aims at practical QMS for improving business; after all, good quality drives the company.

ISO certification is crucial for efficiently implementing a quality management system in the organization. There is a strong demand for quality improvement in the global market. Companies compete with one another to bring the latest needs of the clients and global quality accreditation. Buyers in different sectors are informed and aware of the genuineness and safety of the products and services they purchase. However, despite the constant growth and demands for certification, ISO certification is not free from criticism; some of the myths related to ISO Certification are:

Documentation. ISO certification demands excessive documentation and criteria at the initial stage of certification, and often companies tend to focus too much on the documentation at the cost of normal operation.
Excess Theory. An organization often emphasizes theory and neglects actual implementation in its attempt to fulfill the goals and objectives of QMS. There is a need to stress and keep in mind that the implementation of QMS adds real credit to the organization.

Excess Competition. Too much competition sometimes makes the organization look overboard. Constant pressure from the management often reduces employee motivation and may even go to the extent of combating continuous growth within the organization.

Rigidity. In this era of rapid technological advancement, a lack of flexibility in the certification slows the process of improvement and implementation. QMS must constantly be revised to meet the new inclinations of the customer.

Less Customer Oriented. On many occasions, the organization tends to ignore that customer satisfaction is the basis of achieving quality services and getting certification. Customer preferences are looked over while implementing QMS, and emphasis is made too much on the organization's goals of making a profit.

6. Conclusion

The scenario of ISO Certification brings to light competition in the marketing process, and certification becomes an undeniable step for organizations and companies to stay in the market and protect their label while simultaneously retaining customers' loyalty. After all, the standardization movement has always seen itself as serving a higher public good. ISO's current role in global governance helps create a global market with global competition. As the scope of ISO certification expands, companies and organization that has been certified have greater opportunity for expansion and success in the market economy. ISO has championed a quality management system globally. Moreover, more recently, ISO 14000 on Environment Standards set more weight on its certification. ISO's work and standard series have become essential to the governance of the global market and economy.

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