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Quality Management System Case Study, in a Mexican Company´s Services

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ABSTRACT

Quality at the beginning consisted in detecting and controlling defective products in order to avoid that those products reach clients, and then evolved to detect fails during the process to correct them. Nowadays, the prevention from the origin is a practice through proper management of the operation. Systems based on quality management are strategies to demonstrate to customers that using continuous improvement and process control, their expectations can be fulfilled. This study helps to understand and apply theoretical and structural concepts managed by ISO 9001:2008 certification rules, from diagnosis to the implementation of quality management system at an outsourcing services Mexican company, with the participation of staff and senior management.

KEY WORDS: Quality, business, consulting, quality standards, organizations.

INTRODUCTION

Organizations need to become more competitive, thus the systems based on quality management is a strategy that helps to demonstrate to clients that they have the capacity to meet their requirements [1]. The SGC application has been spread to universities [2] financial system [3] and health care [4]. Studies referring to quality issues such as: the quality principles, in which Management Systems (QMS) are based, and measuring indicators for quality services are reported in [5] and [6] respectively. Therefore, the quality management system based on processes proposed in the standard ISO 9001:2008 is the result of organizations demands of having more robust management tools, supported by the international organization to deal with the uncertain future of exchange of assets and services called globalization [7]. In Mexico, only 1% of companies are certified [8] and [9], although as mentioned in [10] companies get benefits outweigh their effort to implement the QMS, existing a particular interest for researchers, to analyze what happens within organizations at the time of implementation [11].

In 1926, twenty-two countries met to found an international federation of the national committees of standardization, called ISA (International Standardizing Associations). This organism preceded what is today known as the International Organization for Standardization (ISO), which was founded at the end of the 1940s in Geneva, Switzerland, where now the head office is located. Nowadays, it is now the largest organization of global standards, which has published 16,500 international standards since its inception to date [12] and [13].

According to information published by the *Secretaría de Economía*[9], the ISO 9000 series were published for the first time in 1987 and it was not until 1994 that published its first revision; the reason was that management systems were innovative to some organizations committed to the establishment of quality systems based on these standards.

Due to the above, ISO 9000 standards have suffered up to now four editions. In Mexico, the first was in 1989 called NOM-CC-003-1989, which was replaced by the NMX-CC-1994, in turn replaced by the NMX-CC-9001-IMNC-2000. This represents a substantial change from the previous ones, and finally the NMX-CC-9001-IMNC-2008 leaving without effect the former ones on of November 13th, 2009. On November 13, 2010 all accredited certifications that wereexisting must have been issued in accordance with the ISO 9001:2008 and those that were kept in the 2000 version were not valid anymore.

These standards provide minimum requirements to develop a QMS, regardless of the company activities or the product or service provided. In Mexico, ISO 9000 version 2008 standards are developed and updated by the Technical Committee of National Standardization Systems of Quality (CONTENNSISCAL), within

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the Mexican Institute for Standardization and Certification, A.C. (IMNC). The equivalence of this standard in Mexico is represented by the acronym NMX-CC which means Mexican standard of quality control.

The current edition of the ISO 9000 standards as set out in its version 2008 is applied for the purposes of this investigation, it was issued by the IMNC and published by the *Dirección General de Normas* (DGN) from the *Secretaría de Economía*, in the Official Gazette of the Federation (*DiarioOficial de la Federación - DOF*) on January 2nd, 2001, and this Mexican standard will be in effect unless the Secretary publishes its cancellation in the DOF.Therefore, all users of ISO 9001:2000 standard should switched to this unique requirement, the ISO 9001: 2008 standard which is accredited since November 13th, 2010 and this is the only standard in the series in which organizations may certify [9].

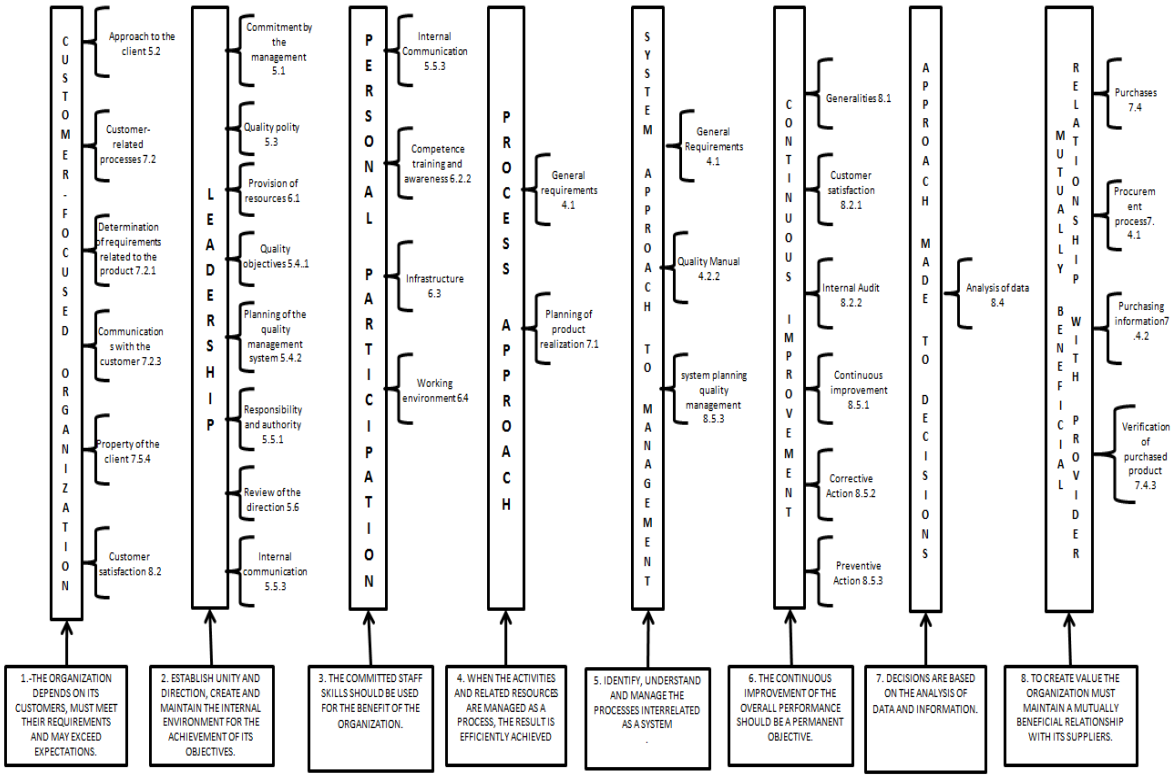
The family of ISO 9000 principles consists of three basic standards: (i)) NMX-CC-9000-IMNC-2000 (ISO 9000:2005): quality management systems. Fundamentals and vocabulary; (ii) NMX-CC-9001-IMNC-2000 (ISO 9001:2008): quality management system. Requirements, which is the only standard of the family who is certifiable and (iii) NMX-CC-9004-IMNC-2000 (ISO 9004:2009): Management for the sustained improvement of an organization. Approach of quality management. All of them are complemented and oriented to the customer satisfaction and strengthening of the organization, through the implementation of continuous improvementactivities [14].

It can derive to confusion that the norms ISO 9001:2008 and ISO 9004:2005 refer to the same, however it is incorrect, as the ISO 9001:2008 focuses more clearly on the QMS requirements of an organization to demonstrate its ability to meet the client needs, while the norm ISO 9004:2005 goes further because it provides recommendations to continuously improve the Organizations performance. Both act as a coherent couple strongly linked to provide organizations a structured approach towards progress, beyond the certification, to achieve world class quality performance.

The standards ISO 9001:2008 and ISO 9004:2005 are based on eight quality management principles: organization oriented to customer, leadership, employee participation, approach based on processes, system management approach, continuous improvement, approach based on facts for decision making, and mutually beneficial relationship with the supplier. They reflect the best practices of quality management and were prepared as guidelines by international experts in quality [15].

The eight principles of quality management (Figure 1) reflected in the ISO 9000:2008 and ISO 9004:2005, should be used by senior management to drive and operate an organization to better performance, and it is required that these could be directed and controlled in a systematic and transparent way.

Figure 1.PRINCIPLES OF QUALITY CORRELATED WITH THE STANDARD ISO 9001: 2008



Source: Own design with data obtained and analyzed from [15] and standards 9001:2008

One the referential framework is understood, the interaction between each of the standards and the quality principles for its successful implementation in an organization, it is necessary to determine what was the method for carrying out the QMS in the company, subject of study.

METHOD

Every research, as a systematized knowledge generation process requires a series of steps directed towards the achievement of a goal; therefore, for the development of this work,the technique of case of study is applied as a method of qualitative research [16] which examines a contemporary phenomenon within its real-life context and which has among its objectives the description of a situation, and responds to questions of "how" and "why" whose results are transferable to other cases, but not to the implication of the theory [17] and[18]. Therefore, the present study is intended to develop a QMS for an outsourcing service company in human resources from Mexico, through a deploy and interpretation of the standard ISO 9001:2008 requirements which translates a specific documentary proposal tailored to what is done and should be in such an organization.

The follow-up for the process is: (1) Study design. The objective of the research aims to describe the company situation relation to the fulfillment of the criteria of the standard, which develops a guide to action. (2) Achievement of the study. In which the diagnosis was made through an instrument called a "Checklist of diagnosis", which consists of a series of questions made by the criteria of the ISO 9001: 2008. The results allow knowing the starting point for the design of the QMS, the approach of the current system compared to the norm and the degree of compliance with and the requirements implementation, in order to visualize the magnitude of the system. (3) Analysis and conclusions. Based on the above, not only it was designed guidelines for the QMS, but also, it was identified: strengths to support the standardization project, opportunities which will clarify highly standard performance through the establishment of objectives; weaknesses and threats that will be reduced or eliminated with corrective and preventive actions to achieve improvements.

The QMS is based on the methodology of Plan-Do-Check-Act, which includes theoretical and practical elements, and seeks a better interpretation and feasibility to adopt the ISO 9001:2008 in their processes for the outsourcing company. Such elements are based on the norm NMX-CC-9001-IMNC-2008 known as ISO 9000:2008, which are generic and apply to organizations of any sector, size or segment.

Scope of the quality management system

The ISO 9001 standard is formed by eight clauses, the first three contain no requirements, however, it is important to know its content, since they deal with fundamental issues for a better understanding of it, while the clauses 4, 5, 6, 7 and 8 contain mandatory requirements to design and implement a quality management system based on processes.

Documentation is essential in the QMS, because it includes the scope of the product, the service or the process according to: 1) the size of the organization and the type of activities, 2) the complexity of the processes and the interaction between them, and 3) the competence of personnel.This means that while larger organizations are in terms of number of employees or sites, you can choose to certify specific processes. On the other hand, if they are shorter, you can choose to certify all processes related to the product or service. Also, while the lower the complexity of the processes to certify, the greater may be the scope intended by the system. From the point of view of the staff competence, the greater the competition suggested a minor detail in the documentary system. Therefore, the determination of the size and detail of the QMS depends on the scope by the system itself.

Once thescope is delimited, it is necessary to identify the processes of the product or service for which the QMS is developed. A system based on processes, means focus on activities that produce outcomes, not only in final results, but also in the identification of processes that interact with each other to be controlled in order to achieve good products or services. The processes need to behave in a flexible way to comply with the requirements of the clients and the organization. In order to identify, to understand, and to manage the processes that are interrelated in the QMS, they must be grouped in primary ones and secondary ones. The detail of how to carry them out are called activities, for which, you have to go from the general to the particular one.

The organizational structure of the outsourcing enterprise subject under this study is a tool that serves to its processes and it is considered as with some interdependent elements in which this case makes up the generic value chain that directly influences the quality of the service. In this particular case, the analysis was chosen in the entire organization.

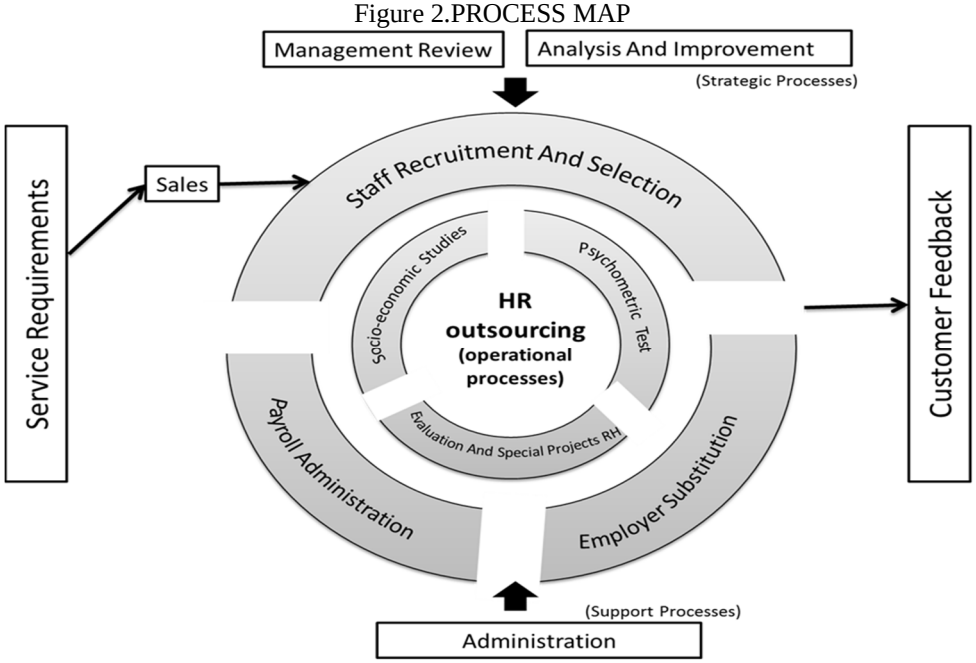
The purpose of identifying the primary and secondary processes is due to the first must be managed with greater control than the others, because they establish the quality of service and they express the continuous improvement scope. Besides, through them it is possible to establish the objectives for customer satisfaction. On the other hand, the secondary processes, such as; infrastructure, technological development, and maintenance services among others, serve as support and complement activities, however, they are not less important, without them the organization cannot be manage to generate value.

The services or operative processes which offer the human resources outsourcing company are:

- Recruitment and selection of personnel
- Payroll administration
- Employer substitution
- Psychometric test
- Socio-economic studies
- Assessments and special projects for human resources

In this case the administrative area is considered to be of support, because it has no direct inference with the service, while in the operational and commercial activities are primary since they add value. The commercial area develops primary activities since it has direct relation with the service provision, in turn, the operational area is comprised of four coordination parts; recruitment and selection, employer substitution, payroll and socio-economic studies, all of which are primary because they add value. The process map is in figure 2 which indicates the main categories of processes: strategic, operative and support.

Figure 2.PROCESS MAP



Source: Own design

Processes that add value should be 100% documented and detailed in the quality system. They make up the documentation which serves as a reference for the service. They may affect specifications, either negative or positive and hence the client satisfaction. It is important to note that such support processes and those who add value make up the quality management system. However, seen from the documentary point of view, those who add value are located in a level of macro-process and quality plans. While the secondary or support processes are at the level of procedures or work instructions. Processes must be ordered in a sequential and logical way by identifying input, process and output elements. Also, it should be recognized the interrelation with other processes, each one seen as a small system which comprises the QMS as a whole.

Quality Management System

The QMS for the HR outsourcing company consists of four basic points: diagnosis, training, planning, and documentation and design. It basically corresponds to the document structure and formation of the

organization. In Figure 3it is observed the stages of a complete draft of the QMS; the activities carried out in each one; as well as the estimated time of completion of each phase, this duration is estimated for the project of the company under review; and finally the terms of the standards ISO 9001, which refers to the activities of each phase. It should be noted that certification is not a requirement of the ISO 9001 standard, this activity is regulated by the *Ley Federal* sobre Metrología *y Normalización y* su Reglamento (federal law on metrology and standardization and its rules of procedure), under which govern the Normas Oficiales Mexicanas (Mexican official standards) and Normas Mexicanas (Mexican standards).

Figure 3. PHASES OF THE DESIGN AND IMPLEMENTATION OF THE QMS FOR HR OUTSOURCING

PHASES	ACTION	ACTIVITIES	EJECUTION TIME (days)	RELATIONSHIP WITH THE ISO 9001:2008 STANDARD
1.- DIAGNOSIS	Diagnosis. Current operation system	• Implement interviews, surveys, lists of verification of diagnosis	6 Days	Clause 4.-System of quality management
2.-TRAINING	Interpretation Course of ISO 9001:2008 Standard	• Teaching course of interpretation of the ISO standard to staff.	16 Days	Clause 6.2 Human Resources
3.-PLANNING	Organization planning	• Submit and validate the project plan. • Designate and formalize quality committee. • Appointment of the person responsible for quality. • Integrating policy and quality objective. • Communicate and disseminate quality policies and objectives.	6 Days	Clause 5. Responsibilityformanagement
4.- DOCUMENTATION AND DESIGN	QMS Processes (write what you do)	• Identify macro-process. • Map macro-process. • Validate and adjust macro-process. • Review and approve macro-process. • Develop quality plan for each macro-process. • Identify procedures and instructions of complementary work. • Identifycomplementaryformats. • Set targets for each process. • Validate and adjust quality plans. • Review and approve quality plans. • Communicating and disseminating macro-process and quality plans. • Develop procedures and complementary instructions. • Developcomplementaryformats. • Validate and adjust procedures, instructions and formats. • Communicate and disseminate procedures, instructions and formats.	71 Days	Clause 4.1 General requirements. 4.2 Documentation requirements 7. Realization of product.
	Resourcemanagement	• Formalize the process of training the staff. • Formalize assignments, updating and maintenance of infrastructure. • Formalize the management of the work environment.	16 Days	Clause 6. Resourcemanagement
	QMS Management	• Develop procedure for control of documents. • Develop procedure for control of QMS records. • Integrate evidence of implementation of QMS.	31 Days	Clause 4.2.3 Document control
5.- IMPLEMENTATION	Comprehensive plans for internal quality audits	• Internalqualityauditprogram. • Performinternalqualityaudit. • Reportresults. • Define correctiveactions. • Implementations. • Validateactions.	27 Days	Clause 8.2.2 Internalaudits of quality 8.5.2 Correctiveactions
6.- EXTERNAL AUDIT	Certification process (certification is not a requirement standard)	• Quote and integrate the array of alternatives. • Selectcertificationbody. • Pre-audit of certification. • Identify actions to eliminate deviations. • Implement actions to eliminate deviations. • Assess and validate results of each action. • Certificationaudit. • Propose solutions to possible recommendations. • Recommendations for the maintenance of the QMS.	54 Days	Federal on metrology and standardization law (fourth title – of accreditation and compliance determination). Chapter 1 of the accreditation and approval.

Source: own preparation.

It is important to know before designing and implementing a QMS, to understand that it must be useful, practical and easy to apply in addition to bringing benefits to all employees. Times for activities must not necessarily be set at the end of the immediate previous activity, which means that some of them could be done at the same time, considering that is not the same person that should execute them.

1. Diagnosis.

The diagnosis is the first phase of design. Shows an assessment of how is the company with respect to compliance with the requirements of ISO 9001 standard.

2. Training.

Training refers to teach a course of interpretation of the ISO 9001 standard to the staff of the involved company, to make them know: the requirements of the standard, the content of each of them and their implementation. This is, having a first encounter with the rules and their interpretation.The training course can be taught by staff of the organization in the area of quality or even an external advisor. It may last 2 to 3 days, with an estimated time of 6 to 8 hours a day, and it is recommended to be in groups of no more than 15 people each. Then do an assessment of the course, where the items should be raised in such a way that they measure the degree of understanding of the ISO 9001 standard interpretation.

3. Planning.

Submit and validate the general plan of the project, through a Gantt graph, where the tasks are placed, their beginning and end dates, the duration (in days or weeks); andthe period covered by each stage are highlighted (months, weeks, or years). You can also perform in a detailed manner each phase indicating the activities and the period covered by each of them.

Once authorized or adjusted the project with upper management, you must designate and formalize a quality Committee, which must oversee the functioning of the system, adopt the documents that comprise and monitor its implementation and evolution. Its functions are:

- Setting and reviewing policy and quality objectives.
- Reviewing and approving documentation.
- Approving the plan of internal quality audits.
- Identifying, analyzing, proposing and tracking areas of improvement.

In addition, senior management must appoint a person responsible for quality that must ensure that it establishes implements and maintains the processes required for the QMS.Its main functions are:

- Overall coordination in the field of quality.
- Training of the members for the implementation of the QMS.
- General implementation of the QMS.
- Internal audit procedures.
- Management of "Non-conformities".
- Periodic supplier approval.
- Customer satisfaction measurement.
- Report to senior management on the system performance.
- Ensure that promotes awareness of customer requirements at all levels of the organization.

The quality objectives and policy**.** Another important point which marks the ISO 9001 standard is the establishment of policy and quality objectives. In this case, as the organization under study does not have them, then some of them were proposed which are mentioned in short. The quality policy should be adequate to the purpose of the organization, focusing on satisfaction and customer trust, that is, how the organization ensures compliance with the requirements of the client?, as well as, how the resources and means achieve the requirements?; this creates the organization, a commitment to quality.

On the other hand, quality objectives must be consistent with the policy of quality, since they show a commitment to continuous improvement, and should be raised so that they are measurable and quantifiable, over a period of time, to assess their compliance. Through the achievement of these, an impact on the quality of the service or product can be achieved, the operation can be made efficiently and the financial situation of the organization can be improved.

The quality policy. We are committed to satisfy the needs of our clients in aspects of human capital, offering efficient solutions. To do this we rely on a personalized care, maintenance and updating of our operational infrastructure, continuous improvement of our processes, optimization of resources and training of our employees.

The quality objectives. Maintaining optimum conditions of operation of the equipment and infrastructure of the organization at least 95% level.
• Reaching 90% in the level of customer satisfaction with regard to the solutions offered during the period 2008-2009.
• Providing at least 20 hours/employee training of our staff during and at the end of the year.
• Achieving a maximum rate of 3% of customer complaints during the period.
• Achieving ISO certification 9001: 2008 by mid of the year.
• Implementing a new system of payroll at the end of the year.
• Implementing at least 5 projects of improvement in our internal processes to the end of the year.

Objectives and quality policy should be analyzed for their continuous adaptation and deployment throughout the organization, to ensure their understanding and commitment from staff. The communication resources can be internet, publication of internal ads, direct mail, broadcasting in meetings, calendars, internal magazine or any other means.

4. Documentation and design.

One of the key supports of the QMS is the documentation of the processes and instructional work, which determines the structure, responsibilities, resources, methods and forms of work. This compliance ensures the quality of the activities for which they were created. This activity should not be a bureaucratic process or just to satisfy a certifying entity. The benefits of having a documentary system processes, are among others, the accordance with the requirements of the customer, the improvement of quality, the provision of appropriate information, the definition of responsibilities, the consistency in the process, the provision of objective evidence and the assessment of the efficacy and the continuous adaptation of the QMS.

The types of documents that must be generated in a QMS are:

- Papers that provide coherent information internally and externally on the QMS of the organization, such as; quality manuals.
- Papers that describe how the QMS is applied to a product, service, project or specific contract, such as; quality plans.
- Documents which establish requirements, such as; specifications.
- Documents which provide information on how to conduct activities or processes in a consistent manner, such as; procedures or work instructions, and
- Documents that provide evidence of activities, such as; records.

It is essential for the documentary system that mission, vision, values, organizational structure, descriptions and post profiles are included, since they are the starting point of the system. It should be noted that the company, subject of study, has these elements. Therefore, the QMS of the company is composed of a quality policy, objectives of quality, values, mission, vision, quality, quality plans, procedures manual, instructions, documents and records required by the ISO 9001: 2008.The documentary structure for the company for the QMS is: *i)* Quality manual *ii)* Macro-processes, *iii)* Quality plans, *iv)* Procedures, *v)* Instructions, and *vi)* Formats.

It is necessary to have structured plans and procedures to determine the criteria and methods, in order to ensure the effectiveness of the processes and availability of resources and information required. Besides, it is required to set measurable and achievable goals and to identify possible deviations for correcting them.

Once you identify the processes, the macro-processes are made. These last ones are information flow diagrams representing graphically the steps of a process, their interaction between its input elements, the process itself and the output elements. They have to be validated with the parties involved in the process and make adjustments if necessary for its approval. The document must contain autograph from whodraft it, reviewed it and authorized it, to later be taught, distributed and deployed.

Subsequently, the quality plans for each macro-process are developed, and these are documents that describes in a sequential and detailed manner the activities mentioned in the macro-process. Quality plans describes the requirements that must be covered prior to the realization of the process, the documentation of reference for the implementation of the process, the responsible for each activity (implementation, monitoring and control of the process), the activities (verification, validation, monitoring, inspection, testing or test), the criteria under which the process is acceptable, the applicable statistical technique and the documents that record the events and its results.

Quality plans shall always contain explicit a real, measurable and achievable objective as well as a score card (according to procedure of documents of each organization). Once prepared, they are also validated and

adjusted to subsequently proceed to its approval (signature of developed, reviewed and authorized). During its preparation, it should be included procedures, instructions and additional formats.

The procedures for administering the QMS include both the compulsory procedures of the ISO 9001: 2008, as the procedures corresponding to the specific processes that describe activities undertaken by the organization.

The ISO 9001: 2008 standard requires only six documented procedures, and then left to the discretion of each organization, the decision of the procedures required to document the operation, according to the scope of the system and its needs.

The work instructions are documents that describe maximum details of each task or a very specific operation within the company, referring to a procedure that emerges from a quality plan and at the same time a macro-process. These documents are made to be used by the operating personnel that performs specific tasks and must be made by them preferably. The formats are working tools which are converted into written proofs of tasks, activities, operations or processes that when have been carried out, they contain data and are known as records and may be either physical or electronic.

Documents can be internal or external, electronic or physical and must remain in a visible place, identified and classified. The formats are also documents but they have no information. Internal documents are controlled according to the review number or version according to an assigned code; for example, procedures or instructions designed by the company. External documents are controlled using the latest version and they are not codified; for example, laws, rules, regulations, and user manuals. Electronic documents refer to databases or programs which are used for the development of a process and that are stored in a computer, while physical forms refer to printed documents. Records and documents used in a process of the QMS, should be controlled through lists, called master control of documents and master control of records.

The ISO 9001: 2008 standard requires the development of a documentary system for the quality assurance, which reflects compliance with requirements of the standard. Because it is designed at all types of businesses in any sector, it exist the freedom to design quality systems, adjusting to the particularities and requirements of each organization. The figure 4 and figure 5 shows the proposal of the documentary system recommended for the company, which specifies the procedures, instructions, plans and other documents that must be designed and implemented to ensure compliance with the requirements of the customers.

Figure 4.PROPOSAL OF THE DOCUMENTARY SYSTEM FOR HR OUTSOURCING

QUALITY MANUAL	MACRO-PROCESS	QUALITY PLANS	COMPULSORY PROCEDURES OF THE ISO STANDARD	INSTRUCTIONS	RECORDS
• **Quality Management System**	• Employer substitution. • Prospecting and sales. • Formalization of the service. • After-sales service. • Socio-economic studies. • Recruitment and selection.	• Employer substitution. • Prospecting and sales. • Formalization of the service. • After-sales service. • Socio-economic studies. • Recruitment and selection.	• Procedure for the control of documents. • Procedure for the control of records. • Procedure for internal audits of quality. • Procedures which are not fulfilled for the control of services. • Procedure for corrective action. • Procedure for preventive actions.	• Instructions for care and customer service. • Instructions for the recruitment of Outsourcing. • Instructions for the worker to the IMSS discharge. • Instructions for the payment of taxes and social benefits. • Instructions for the Administration and reporting of incidents. • Instructions for the delivery of receipts for payroll. • Instructionsto apply for travel expenses and checking management. • Instructions for the justification of "no attendance" staff. • Instructions for the allocation of services and benefits administration. • Instructions for term of labor relationship. • Instructions for application and cost allocation and travel. • Instructive for the verification of travel expenses. • The employee manual to apply for processing and travel expenses. • Instructions for the verification of the system of payroll tax calculations.	• Complaints and suggestions. • Satisfaction Survey to customers. • Survey of Outsourcing employees. • The service request. • Requirement of the staff. • Minutes of meeting. • Application for travel expenses. • Audit of travel kit. • Sheet of omission. • Attendance lists. Impact customers. • Local incidents. • Employer letters. • Commercial Kit. • Recruitment Kit Disabilities. • Payroll receipts. Non-conformities. • Format of improvements. • Service not satisfied. • Follow-up to non-conformities. • Corrective and preventive actions • Complaints and suggestions.

Source: own preparation.

Figure 5.PROPOSED ADDITIONAL DOCUMENTARY SYSTEM OR SUPPORT FOR HR OUTSOURCING

PROCESS	PROCEDURE/INSTRUCTION	RECORD
Socio-economic studies	• Instructions for home visits and implementation of economic interview	• Socio-economicstudyquestionnaire
Delivery	• Deliveryprocedure	• Deliveryaplications
Purchasing	• Purchasingprocedure	• Application for purchasing. • Evaluation of suppliers. • Selection of suppliers.
Assignment of financialresources	• Procedure for management and allocation of financial resources	• Checkor transfer request.
General Services	• Procedure for corrective and preventive maintenance of the infrastructure. • Instructions for the request and delivery of stationery.	• Maintenancerequest • Stationaryrequest
Human Resources	• Procedure for the training of personnel	• Descriptions and profiles of job positions

Source: own preparation.

Measurement analysis and improvement. Listed below there are some tools for measurement, analysis and improvement of the QMS:

• Format of complaints and suggestions (for customer use).
• Instructive of service and customer care.
• Satisfaction survey of employees of the company (for use by the employee).
• Customer satisfaction survey.
• Format of non-conformity (for internal use).
• Boards for control of processes and services.
• Format of continuous improvement.

Manual of Quality.The quality manual is the most important document of the system, contains the mission, vision, values and quality policy as well as a history of the organization. It defines the scope of the processes, as well as the exclusions which apply. It also mentions the procedures established for the QMS and their interaction; it develops the guidelines and criteria for action to ensure the conformity of the service based on the requirements which marks the ISO 9001 standard.

Quality training for internal auditors. The standard ISO 19011 offers guidelines to audit the management systems of quality and environmental, and provides guidance on the principles of audit, gestation of audit programs, realization of audits of the QMS and abilities for auditors. Internal audits of quality can be practiced by staff from different areas of the organization. Those selected must have taken and credited the course of interpretation of the ISO 9001 standard, prior to participating in the course of formation of internal quality auditors.

People who credited the course, and are selected as internal quality auditors, will be those who assess the degree of implementation of the QMS in accordance with the requirements of ISO 9001 standard. The findings obtained when auditing the quality system are used to assess the effectiveness and identify opportunities for improvement. Such information also serves to senior management to assess the appropriateness, adequacy, efficiency and effectiveness of them.

5. Implementation.

Once it is transcribed "write what you do", and "do what is written", the implementation phase of the QMS is successfully performed if there is an assertive way to demonstrate to employees the value that holds those statements. The implementation of the QMS involves carrying out activities such as those described in the documents and records; therefore, this shows evidence, which they monitor and oversee corrective, preventive and continuous improvement actions in such a way, that can verify the implementation of the QMS.

The interest of implementation must be in the improvement of the organization rather than on the certification, so it requires an appropriate process of awareness to facilitate it, because not all companies are in ideal conditions, largely depends on the responsiveness degree of senior management, the seriousness with which the project is taken, the understanding of the regulatory framework and capacity to adapt to the change of personnel; thereby adopting elements that create a favorable environment for the implementation of the quality system in the company. If there is not previous assistance, the organizational culture and favorable conditions for the working environment are not created and the QMS will be seen as one well-intentioned organizational approach that may go out of fashion.

Internal quality audits. Internal quality audits are a set of activities that should be played by the personnel of the company and that involves checking the degree of implementation and compliance with the requirements set out in the standard ISO 9001: 2008 with those developed by the company to validate the effectiveness and efficiency of the QMS. It is a technique to verify that the procedures and instructions are carrying out the quality plans and the quality manual, in such a way that it complies with the agreed with the client of the organization, legal and regulatory requirements.

6. Certification.

Certification although it is not a requirement that sets the standard, gives confidence to all parties (customers, government authorities, consumers and the public) that a process of QMS meets the specified requirements. Certification service varies between each certifying agency and it is responsibility of the organization to meet that one to cover their requirements: response time, costs, prestige and purpose. It should be noted that certification is carried out to the processes, not products.

Conclusions

Systems based on the quality management are strategies that help companies demonstrate to their customers, through continuous improvement and process control, that they are able to meet their requirements. The design, implementation and certification of a QMS refer to the process as a whole, and each phase has to be in that order, which means that there must be a design before implementation and development previous to a certification. However, implementing a QMS does not necessarily imply to go through a certification process, as outlined in this paper, this decision should be discussed by senior management as a business strategy.

The QMS developed for the company was designed based on diagnosis, where it was possible to identify their strengths, weaknesses, opportunities and threats. The strengths and opportunities helped to the implementation of QMS in a more agile way. While some of the weaknesses and threats prevented the satisfaction and fulfillment of customer requirements. Thus, this study facilitated understanding and application of theoretical and structural concepts managed by certification standards, from diagnosis to the implementation of the QMS, with the participation of all the organization members, starting with senior management.

Finally, it should be noted that if an organization decides not to be certified in the short term, it is possible to choose only the implementation, which carries implicit benefits offered by the process-based QMS, such as better working environment, optimization and standardization of processes, better control in the operation, error analysis and correction, decision-making based on the results, customer satisfaction measurement, etc.

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