

Chapter 1 : Elements of Quality of life

Elements of Quality David Chaudron, PhD No one has to tell you about how important quality is to your company; You see the results of it, or the lack of it, every time you have a satisfied customer, or when your competitors market share increases.

Your business and its customers will reap many benefits. However, in order to get that approval from an accredited registrar certification body , you need to understand the elements of a quality management system. The Elements of a Quality Management System When handled following the Plan-Do-Check-Act cycle , the elements of a quality management system can help your business flow as efficiently as possible. Based on ISO Incorporating customer requirements and needs is an integral part of the quality management cycle. After all, it all begins with providing customers or clients with the best products and services. The Quality Management Cycle

1. Planning What do your customers or clients want? The planning process involves giving them what they need or perhaps solving a problem that prevents them from receiving exactly what they are expecting. Support and Operation Managers and other employees who are responsible for the task at hand should work together to fulfill the goals of the plan. Communication among the team members will be a key to success here. Performance Evaluation Whenever the plan is completed and implemented, the next step is research. Did the plan accomplish what you hoped it would? How did the employees handle the job? Were there any problems? Were there any unnecessary steps that wasted time? Can you save money somehow? The underlying, two-part question is: Did it work, and if so, could it work better?

Improvement If you discover there were problems or that nothing worked the way you thought it would, you can either resolve those specific issues or start over from scratch. Identifying what will not work is almost as important as identifying what will. The Leadership Role At the center of the quality management system is leadership. Leadership must oversee all the elements of a quality management system to ensure that it is flowing properly. Customer Satisfaction Even if you think the plan worked out perfectly, you could learn the complete opposite from customers. Customer feedback is one of the most important ways to discover if your business is operating as it should. Contact Trident QMS for More Information As this is a simplified overview, if you need more detailed information about the elements of a quality management system as you prepare for your ISO We can be reached through our Trident QMS website or by phone at We would be happy to work with you to make sure you and your business are ready.

Chapter 2 : Elements of the Quality System

Total Quality Management (TQM) is a management approach that originated in the 1980s and has steadily become more popular since the early 1990s. Total quality is a description of the culture, attitude and organization of a company that strives to provide customers with products and services that.

This paper is meant to describe the eight elements comprising TQM. Key Elements TQM has been coined to describe a philosophy that makes quality the driving force behind leadership, design, planning, and improvement initiatives. For this, TQM requires the help of those eight key elements. These elements can be divided into four groups according to their function. Foundation – It includes: Ethics, Integrity and Trust. Building Bricks – It includes: Training, Teamwork and Leadership. Binding Mortar – It includes: Roof – It includes: Foundation TQM is built on a foundation of ethics, integrity and trust. It fosters openness, fairness and sincerity and allows involvement by everyone. This is the key to unlocking the ultimate potential of TQM. These three elements move together, however, each element offers something different to the TQM concept. Ethics – Ethics is the discipline concerned with good and bad in any situation. It is a two-faceted subject represented by organizational and individual ethics. Organizational ethics establish a business code of ethics that outlines guidelines that all employees are to adhere to in the performance of their work. Individual ethics include personal rights or wrongs. Integrity – Integrity implies honesty, morals, values, fairness, and adherence to the facts and sincerity. The characteristic is what customers internal or external expect and deserve to receive. People see the opposite of integrity as duplicity. TQM will not work in an atmosphere of duplicity. Trust – Trust is a by-product of integrity and ethical conduct. Without trust, the framework of TQM cannot be built. Trust fosters full participation of all members. It allows empowerment that encourages pride ownership and it encourages commitment. It allows decision making at appropriate levels in the organization, fosters individual risk-taking for continuous improvement and helps to ensure that measurements focus on improvement of process and are not used to contend people. Trust is essential to ensure customer satisfaction. So, trust builds the cooperative environment essential for TQM. Bricks Basing on the strong foundation of trust, ethics and integrity, bricks are placed to reach the roof of recognition. Training – Training is very important for employees to be highly productive. Supervisors are solely responsible for implementing TQM within their departments, and teaching their employees the philosophies of TQM. Training that employees require are interpersonal skills, the ability to function within teams, problem solving, decision making, job management performance analysis and improvement, business economics and technical skills. During the creation and formation of TQM, employees are trained so that they can become effective employees for the company. Teamwork – To become successful in business, teamwork is also a key element of TQM. With the use of teams, the business will receive quicker and better solutions to problems. Teams also provide more permanent improvements in processes and operations. In teams, people feel more comfortable bringing up problems that may occur, and can get help from other workers to find a solution and put into place. There are mainly three types of teams that TQM organizations adopt: Quality improvement teams or excellence teams QITs – These are temporary teams with the purpose of dealing with specific problems that often recur. These teams are set up for period of three to twelve months. Problem solving teams PSTs – These are temporary teams to solve certain problems and also to identify and overcome causes of problems. They generally last from one week to three months. Natural work teams NWTs – These teams consist of small groups of skilled workers who share tasks and responsibilities. These teams use concepts such as employee involvement teams, self-managing teams and quality circles. These teams generally work for one to two hours a week. Leadership – It is possibly the most important element in TQM. It appears everywhere in organization. Leadership in TQM requires the manager to provide an inspiring vision, make strategic directions that are understood by all and to instill values that guide subordinates. For TQM to be successful in the business, the supervisor must be committed in leading his employees. A supervisor must understand TQM, believe in it and then demonstrate their belief and commitment through their daily practices of TQM. The supervisor makes sure that strategies, philosophies, values and goals are transmitted down through out the

organization to provide focus, clarity and direction. A key point is that TQM has to be introduced and led by top management. Commitment and personal involvement is required from top management in creating and deploying clear quality values and goals consistent with the objectives of the company and in creating and deploying well defined systems, methods and performance measures for achieving those goals.

Communication – It binds everything together. Starting from foundation to roof of the TQM house, everything is bound by strong mortar of communication. It acts as a vital link between all elements of TQM. Communication means a common understanding of ideas between the sender and the receiver. The success of TQM demands communication with and among all the organization members, suppliers and customers. Supervisors must keep open airways where employees can send and receive information about the TQM process. Communication coupled with the sharing of correct information is vital. For communication to be credible the message must be clear and receiver must interpret in the way the sender intended. There are different ways of communication such as: Downward communication – This is the dominant form of communication in an organization. Presentations and discussions basically do it. By this the supervisors are able to make the employees clear about TQM. Upward communication – By this the lower level of employees are able to provide suggestions to upper management of the affects of TQM. As employees provide insight and constructive criticism, supervisors must listen effectively to correct the situation that comes about through the use of TQM. This forms a level of trust between supervisors and employees. This is also similar to empowering communication, where supervisors keep open ears and listen to others. Sideways communication – This type of communication is important because it breaks down barriers between departments. It also allows dealing with customers and suppliers in a more professional manner. Recognition – Recognition is the last and final element in the entire system. It should be provided for both suggestions and achievements for teams as well as individuals. Employees strive to receive recognition for themselves and their teams. Detecting and recognizing contributors is the most important job of a supervisor. As people are recognized, there can be huge changes in self-esteem, productivity, quality and the amount of effort exhorted to the task at hand. Recognition comes in its best form when it is immediately following an action that an employee has performed. Recognition comes in different ways, places and time such as, Ways – It can be by way of personal letter from top management. Also by award banquets, plaques, trophies etc. Places – Good performers can be recognized in front of departments, on performance boards and also in front of top management. Time – Recognition can given at any time like in staff meeting, annual award banquets, etc.

Conclusion We can conclude that these eight elements are key in ensuring the success of TQM in an organization and that the supervisor is a huge part in developing these elements in the work place. Without these elements, the business entities cannot be successful TQM implementers. It is very clear from the above discussion that TQM without involving integrity, ethics and trust would be a great remiss, in fact it would be incomplete. Training is the key by which the organization creates a TQM environment. Leadership and teamwork go hand in hand. Lack of communication between departments, supervisors and employees create a burden on the whole TQM process. Last but not the least, recognition should be given to people who contributed to the overall completed task. Hence, lead by example, train employees to provide a quality product, create an environment where there is no fear to share knowledge, and give credit where credit is due is the motto of a successful TQM organization.

Chapter 3 : Elements of Quality

Elements of the Quality System Your Quality System, is a combination of all the activities that your organization uses to direct, control, and coordinate quality. To effectively achieve high levels of Quality, you must assure quality at all phases in your product lifecycle.

Document control Concept of quality – historical background[edit] The concept of a quality as we think of it now first emerged from the Industrial Revolution.. Mass production brought huge teams of people together to work on specific stages of production where one person would not necessarily complete a product from start to finish. In the late 19th century pioneers such as Frederick Winslow Taylor and Henry Ford recognized the limitations of the methods being used in mass production at the time and the subsequent varying quality of output. Birland established Quality Departments to oversee the quality of production and rectifying of errors, and Ford emphasized standardization of design and component standards to ensure a standard product was produced. Application of statistical control came later as a result of World War production methods, which were advanced by the work done of W. Edwards Deming , a statistician , after whom the Deming Prize for quality is named. Juran focused more on managing for quality. These functions all play a vital role when evaluating quality. Quality, as a profession and the managerial process associated with the quality function, was introduced during the second half of the 20th century and has evolved since then. Over this period, few other disciplines have seen as many changes as the quality profession. The quality profession grew from simple control to engineering, to systems engineering. Quality control activities were predominant in the s, s, and s. The s were an era of quality engineering and the s saw quality systems as an emerging field. Like medicine , accounting , and engineering , quality has achieved status as a recognized profession [1] As Lee and Dale state, there are many organizations that are striving to assess the methods and ways in which their overall productivity, the quality of their products and services and the required operations to achieve them are done. The two have a great deal of similarity, and many manufacturers adopt QMS that is compliant with both guidelines. Quality System requirements for medical devices have been internationally recognized as a way to assure product safety and efficacy and customer satisfaction since at least and were instituted as requirements in a final rule published on October 7, Food and Drug Administration FDA had documented design defects in medical devices that contributed to recalls from to that would have been prevented if Quality Systems had been in place. The rule is promulgated at 21 CFR According to current Good Manufacturing Practice GMP , medical device manufacturers have the responsibility to use good judgment when developing their quality system and apply those sections of the FDA Quality System QS Regulation that are applicable to their specific products and operations, in Part of the QS regulation. As with GMP, operating within this flexibility, it is the responsibility of each manufacturer to establish requirements for each type or family of devices that will result in devices that are safe and effective, and to establish methods and procedures to design, produce, and distribute devices that meet the quality system requirements.

Chapter 4 : SIMPLE - The Seven Quality Elements

Effective Quality Assurance & Performance Improvement (QAPI) programs are essential to improving the quality of life and quality of care delivered in senior living communities.

Total Quality Management involves every single employee irrespective of his designation and level in the hierarchy. A thin line of difference does exist between good and bad, which is for you to decide. Ethics teach an individual to follow code of conduct of organization and adhere to rules and regulations. Avoid spreading unnecessary rumours about your fellow workers. Total Quality Management does not work in an environment where employees criticize and backstab each other. Trust is one of the most important factors necessary for implementation of total quality management. Employees need to trust each other to ensure participation of each and every individual. Trust improves relationship among employees and eventually helps in better decision making which further helps in implementing total quality management successfully. Bricks Bricks are placed on a strong foundation to reach the roof of recognition. The foundation needs to be strong enough to hold the bricks and support the roof. Employees need to be trained on Total Quality Management. Managers need to make their fellow workers aware of the benefits of total quality management and how would it make a difference in their product quality and eventually yield profits for their organization. Employees need to be trained on interpersonal skills, the ability to work as a team member, technical know-how, decision making skills, problem solving skills and so on. Training enables employees to implement TQM effectively within their departments and also make them indispensable resources. Team work is a crucial element of total quality management. Rather than working individually, employees need to work in teams. When individuals work in unison, they are in a position to brainstorm ideas and come up with various solutions which would improve existing processes and systems. Team members ought to help each other to find a solution and put into place. Leadership provides a direction to the entire process of Total Quality Management. Total Quality Management needs to have a supervisor who acts as a strong source of inspiration for other members and can assist them in decision making. A leader himself needs to believe in the entire process of TQM for others to believe in the same. Proper downloads, briefs about TQM must be given from to time to employees to help them in its successful implementation. Binding Mortar Binding Mortar binds all the elements together. Communication - Communication binds employees and extracts the best out of them. Information needs to be passed on from the sender to the recipient in its desired form. Small misunderstandings in the beginning lead to major problems later on. Employees need to interact with each other to come up with problems existing in the system and find their solutions as well. Three types of Communication takes place between employees: Flow of information takes place from the management to the employees Upward Communication: Flow of information takes place from the employees to the top level management Sideways Communication: Communication also takes place between various departments. Recognition is the final element of Total Quality Management. Recognition is the most important factor which acts as a catalyst and drives employees to work hard as a team and deliver their lever best. Every individual is hungry for appreciation and recognition. Employees who come up with improvement ideas and perform exceptionally well must be appreciated in front of all. They should be suitably rewarded to expect a brilliant performance from them even the next time.

Chapter 5 : Elements of Total Quality Management

There are three key elements of quality: customer, process and employee. Everything we do to remain a world-class quality company focuses on these three essential elements.

The major elements of quality of life are: Nutritious food For the physical and mental development of the family members, balanced diet is necessary. Health A healthy person can be involved in different activities for the welfare of the family. Thus for the quality of life, the health status of the individual should be good. Sanitation Sanitation of the surroundings always helps to feel mentally sound and active. As a result, standard of living will be meaningful. Education Quality education provides a person knowledge, skill and attitudes necessary for life. Educated and skilled manpower can involve in prestigious job and can earn more. Therefore, education is necessary for quality of life. Income of the family The quality of life is determined by the economic situation of the family. If the income of the family is high, there is, no doubt, the living standard high. Saving If a small amount of income can be saved regularly, it will be helpful in any sort of problem in future. It may be used in any other income generating activities, too. Therefore, saving helps to make the living standard high. Why low quality of life is the major cause of family dispute? Because of the extended family, its size and low income per head or resources, very basic needs such as food, cloths, housing, education etc. So the living standard tends to be deteriorated and family members do not get satisfaction, which becomes the cause of family dispute. Due to low income and poverty, there is difficulty to provide quality education for all children. Children do not get opportunities for better education. It becomes the cause to lower the family justice. In such families, it is difficult to provide the basic health service, too. Due to lack of health facilities, the family members may frequently suffer from various diseases. In addition, poor sanitation causes low quality of life and there is greater possibility of high mortality in the family. People from the family of low quality of life generally are poorly educated. So they do not get better job easily. Due to the job of lower quality, earning is lower, too. So, life status tends to decline. Even the pregnant women and children do not get appropriate health care and balance diet. So, child and maternal mortality is found to be higher. Income of the family members varies from each other. All of their income has to be collected together for the whole family. A member who earns more naturally wants to invest on his own family whereas he can not do that. This causes dissatisfaction to one who earns more. The member who earns more is treated better. So, there is a chance of developing superiority complex in him. Others who earn nothing or less are likely to undergo through inferiority complex. Why Family size should be small for quality of life? The quality of life is directly affected by the size of the family. In a large family the bigger amount of income is used to fulfill the basic needs of the family. The available resources are not enough to provide quality education for children, health, communication, entertainment etc. If the family size is small, it is easy to fulfill the basic needs as well as to provide necessary facilities and services to all of the family members by the income. As a result, parents will be able to undertake the responsibilities towards their children. Therefore, for the quality life, the family size should be small. Why it is difficult to provide quality education for children in the family of low quality of life? Quality of life depends upon nutritious food, income of family, education, health status, security etc. If the needs of family members can be fulfilled easily, the family has quality of life. If there is difficulty to fulfill the needs of family members, it causes the low quality of life. When the family members are not able to get balance diet, proper clothing, health facilities, shelter, a problem is crated. The health situation of individual will be worse. It causes the low quality of life. In the family of low quality of life, the huge amount of income will be used to fulfill the basic needs. For the problem of food for morning and evening, the parents will be be able to provide better education to their children. Thus quality education is not possible for the children of low quality of life. Adverse effects of low quality of life It will be difficult to provide balance diet and proper nutrition to all the family members. It will be difficult to provide quality education to the children. It will be difficult to provide basic health services, which will decline the health status of the individual. The family members do not have the opportunities of quality education. As a result, they do not get prestigious job. The limited amount of income will not be sufficient for saving in the family of low quality of life. The increased

needs cannot be fulfilled by the low income of the family. Thus, the living standard of the family tends to be lower and lower. Efforts for ensuing quality of life To provide food, cloth, shelter, entertainment, education, security etc. The alternate sources of income should be identified. A part of income should be saved. Environmental sanitation and personal cleanliness should be maintained. Bhim is a 22 Year old guy and the owner of wisenepali.

Chapter 6 : Quality management system - Wikipedia

Overview. The 'ISO 10 Core Elements of an Enterprise Quality Management System' article will provide insights on the core elements of a robust and effective Quality Management System and enable organizations to embrace the revised standard.

Total Quality Management is a formal management style premised on the notion that measurement of a finished product or project is insufficient to ensure quality. Instead, each process necessary for its completion should be measured and monitored to ensure that all deliverables are operating at expected quality standards -- including both management and operational processes. The aim of a quality management plan is a road map that, in part, identifies specific quality standards and sets out the processes and conditions necessary to fulfill quality standards.

Objectives When drafting quality objectives, start with identifying the targeted customers and their needs. Objectives should be stated in terms that address the product or project objective and the organizational objectives. The broad objective of any quality management plan is to effectively and efficiently respond to customer demands by employing processes that are able to meet the quality standard expectations, prevent nonconformance with quality standards and timely identify and turn around performance deficiencies.

Roles and Responsibilities The roles of those responsible for achieving the objectives also should be outlined in the plan. For a small business, this might be one person or key personnel from throughout the organization -- from quality assurance manager to operations testing supervisor. The plan should set out the lines of authority, communication requirements and staff levels, competencies, and training needs required to maintain quality standards.

Deliverables Specific product or project deliverables are identified with timetables that might be associated with each deliverable, which is the tangible or intangible object produced. Key resource requirements for each deliverable should be listed in the quality management plan. Also, incorporate a process into the plan for reviewing prior data related to deliverables for evaluation purposes.

Criteria The criteria is the quantifiable standards, metrics and specifications used to determine quality requirements. In addition to customer expectations, industry benchmark standards and regulatory requirements are reviewed and used to develop quality performance criteria. For example, the quality criteria for a product might be that it must be percent free of defect and that it meets all legal compliance requirements.

Controls In a written plan, set out the schedule of audits, audit personnel, and documentation and reporting requirements. Quality control and assurance activities measure the optimal quality criteria for deliverable against existing conditions. This might include mechanical reporting as well as daily occurrence logs from quality control personnel. The goal is to maintain optimal levels of performance by monitoring performance of deliverable. Examples of quality management tools include Zero Defects and ISO , methodologies designed to measure and correct nonconformances.

Chapter 7 : Main Elements of a Project Quality Plan | Your Business

Quality is a measurable entity and we must know what current quality levels are i.e. Where we are or where we stand in respect of the quality and what quality levels we are aspiring for or where we are going.

Firms that are enrolled in an Institute-approved practice-monitoring program are obligated to adhere to quality control standards established by the Institute. For example, the maintenance of Integrity, Objectivity, and, where required, Independence requires a continuing assessment of client relationships. Similarly, policies and procedures for the quality control element of Monitoring are established to provide the firm with reasonable assurance that the policies and procedures related to each of the other elements of quality control are suitably designed and are being effectively applied. Independence, Integrity, and Objectivity. The firm and its personnel must be free from any obligation to or interest in the client, its management, or its owners. Service and the public trust should not be subordinated to personal gain and advantage. The principle of objectivity imposes the obligation to be impartial, intellectually honest, and free of conflicts of interest. In making assignments, the nature and extent of supervision to be provided should be considered. Generally, the more able and experienced the personnel assigned to a particular engagement, the less direct supervision is needed. Accordingly, policies and procedures should be established to provide the firm with reasonable assurance that those hired possess the appropriate characteristics to enable them to perform competently. Work is assigned to personnel having the degree of technical training and proficiency required in the circumstances. Personnel participate in general and industry-specific continuing professional education and other professional development activities that enable them to fulfill responsibilities assigned, and satisfy applicable continuing professional education requirements of the AICPA and regulatory agencies. Acceptance and Continuance of Clients and Engagements. Such policies and procedures should provide the firm with reasonable assurance that the likelihood of association with a client whose management lacks integrity is minimized. Establishing such policies and procedures does not imply that a firm vouches for the integrity or reliability of a client, nor does it imply that a firm has a duty to any person or entity but itself with respect to the acceptance, rejection, or retention of clients. However, prudence suggests that a firm be selective in determining its client relationships and the professional services it will provide. Appropriately considers the risks associated with providing professional services in the particular circumstances. Professional standards may provide guidance in deciding whether the understanding should be oral or written. To the extent appropriate and as required by applicable professional standards, these policies and procedures should cover planning, performing, supervising, reviewing, documenting, and communicating the results of each engagement. These policies and procedures also should address engagement quality reviews pursuant to AS , Engagement Quality Review. Individuals consulted should have appropriate levels of knowledge, competence, judgment, and authority. The nature of the arrangements for consultation depends on a number of factors, including the size of the firm and the levels of knowledge, competence, and judgment possessed by the persons performing the work. Effectiveness of professional development activities. Administration of a Quality Control System. In making that assignment, consideration should be given to the proficiency of the individuals, the authority to be delegated to them, and the extent of supervision to be provided. In addition, a firm should establish a means of communicating its established quality control policies and procedures, and the changes thereto, to appropriate personnel on a timely basis. Documentation of Quality Control Policies and Procedures. For example, documentation of established quality control policies and procedures would generally be expected to be more extensive in a large firm than in a small firm and in a multioffice firm than in a single-office firm. Standards may also be established by other AICPA senior technical committees; engagements that are performed in accordance with those standards are not encompassed in the definition of an accounting and auditing practice. General Accounting Office, and the U.

Chapter 8 : QC Section 20 - System of Quality Control for a CPA Firm's Accounting and Auditing Practice

Quality is an essential parameter which helps organizations outshine their competitors and survive the fierce competition. The success of total quality management depends on following eight elements which are further classified into following four groups.

They designed a survey for one of our global teams to help design an organizational change and develop scenarios for our strategies. Organized Change is a dependable collaborator who can be relied upon to help us meet our goals. Elements of Quality David Chaudron, PhD No one has to tell you about how important quality is to your company; You see the results of it, or the lack of it, every time you have a satisfied customer, or when your competitors market share increases. Unfortunately, though the concept is the rage these days, is hard to define. Among the elements of Six Sigma are: Focus on Quality and Prevention of Problems Many definitions of quality exist. For this article, we define quality as consistently producing what the customer wants while reducing errors before and after delivery to the customer. More importantly, however, quality is not so much an outcome as a never ending process of continually improving the quality of what your company produces. Six Sigma emphasizes detecting potential problems before they occur. Failure to prevent defects has several consequences: This inspection requires extra people and resources; 2. Not only should employees inspect products or services while they are making or performing them; to be successful in preventing defects, companies must design in quality before they provide a product or service. During the design phase of product or service development, input from customers, marketing, and those and assemble or produce the final product is vital. Cooperate with your Suppliers and Customers Another element of Six Sigma emphasizes cooperating with suppliers of products and services to the organization, and a focus on customer satisfaction. Many organizations treat suppliers with indifference, and often with hostility. Instead of having many potential suppliers, each competing to give the organization the cheapest price, Six Sigma emphasizes a different relationship. In an organization that implements Six Sigma, vendors are treated as business partners, with all parties working to deliver a quality product. Companies choose suppliers based on consistently delivering a quality product or service. This means that for an organization to succeed, its suppliers must implement Six Sigma as well. A key philosophy in dealing with customers is that it is they who define what quality is. In organizations implementing Six Sigma, customers and suppliers include relations inside the organization. Manufacturing can be considered the customer of Engineering; Patients can be the customers of doctors. The "products" departments produce for other departments must satisfy the quality requirements of their internal customers. Continuously Improve and Eliminate Wasteful steps. Quality is a moving target as well. Cars that consumers believed reliable in the past are now of average quality. What is now a rare feature produced only by you will soon become commonplace and expected. To meet dynamic customer needs, the organization itself must be dynamic. The social consequences of this would appear to be minor. One caution exists, however, in eliminating wasteful steps: It can mean the elimination of positions or whole classes of work. Employees may receive this and actively resist against such moves. Encourage the Proper Climate, Empower Employees For continuous improvement to work, management must empower employees, so they are willing to innovate and act in an atmosphere of trust and respect. All of the other components can be in place, and Six Sigma still fail. Employees motivated to improve service to their customers with the climate allowing them to do so is a potent combination. This cycle can be used in: To find out whether we are successful, we ask our customers how well we are doing. In Six Sigma, this data can be graphed. With this data, trained employees including management can use it: The use of experiments at this stage of product development can identify key characteristics that can affect and optimize product or service development. These products may be specific services useful to a customer, or manufactured equipment or materials. When an organization uses statistics to make decisions, they can avoid making knee-jerk reactions to small, random changes in outcome. Statistics allow the decision-maker to tell the difference between chance occurrences and systematic factors that significantly affect product or service quality. If your reaction to this article has been, "Wait a minute. All of these concepts are just good business sense!

Chapter 9 : What Is a Quality Management System? | ASQ

Each element of a quality management system serves a purpose toward the overall goals of meeting the customers' and organization's requirements. Ensuring each of the elements of a QMS is present ensures proper execution and function of the QMS.

Share on Facebook A project quality plan can improve your project management results by helping you complete the project on time, within budget and with the required functionality. The plan guides you in defining project goals, assigning the necessary resources, specifying quality standards, and identifying problems. Once you know how to implement the main elements of a project quality plan, you can manage the project to get the results you want.

Objectives The first element of a project quality plan defines the objectives of the project. Objectives are specific and measurable, and include targets for the total cost and the completion date. The plan specifies the purpose of the project in terms of the functions the users want. Objectives may include milestones for project progress when the project can be completed in clearly defined stages. The aim of this element of the project plan is to provide clear direction and a basis for measuring progress. You can use the objectives to guide your team in its work.

Standards Once you have defined the objectives of the project, you can determine the standards that best apply to the work to be done. ISO is a group of quality standards that govern activities from manufacturing through design to project management and are flexible enough to be applied to a wide variety of projects. Government or military standards are required for some types of work. Many industries have their own sets of standards. You have to choose standards that satisfy user requirements and whose application is most beneficial to the project.

Controls Key elements of a project quality plan are controls that let you ensure the standards are being met and work is progressing toward reaching your objectives. Quality-control systems specify an organizational structure that allows those responsible for quality to check the work being carried out at all levels. A project quality manager can verify that specified levels of quality are being met and can request documentation that demonstrates compliance with project targets. The project quality manager reports directly to the project manager to ensure that problems are addressed at the highest organizational level of the project.

Verification A system of verification of achieved milestones and specified standards is the element that proves you met the project quality targets. Because the project objectives are specific and measurable, a verification gives you a clear indication of project management performance. In addition to internal verification of targets, checking external milestones, such as the issuing of permits, granting of operating licenses and the approval by authorities of key procedures often represent an effective confirmation of internal verification of progress. The final verification of project costs, completion date and functionality form the basis for handing the project over to its users.