



ISO 9000 Implementation Planning at the Office of Graduate, School,
Assumption University

by

Mr. Athisake Jiravichai

A Final Report of the Three-Credit Course
CE 6998 Project

Submitted in Partial Fulfillment
of the Requirements for the Degree of
Master of Science
in Computer and Engineering Management
Assumption University

November 2003

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Project Title	ISO 9000 Implementation Planning at the Office of Graduate School, Assumption University
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Project Advisor	Dr. Chamnong Jungthirapanich
Academic Year	November 2003

The Graduate School of Assumption University has approved this final report of the three-credit course, CE 6998 PROJECT, submitted in partial fulfillment of the requirements for the degree of Master of Science in Computer and Engineering Management.

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Dean and Advisor


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November 2003

ABSTRACT

This project is to make everyone understand the concept of the International Organization of Standardization. Many people still misunderstand the meaning of the ISO and there is no idea of the management system.

The scope of this project is to focus on the quality management system of the Office of Graduate School. The system of the Office of Graduate School serves the students who will be planning to prepare in the case of applying for ISO 9000 in the future. Quality management system does not only emphasize on the quality of product and service as in the past, but the system emphasizes on the management system with structure. There must be communicating policy and quality goal in an organization. There must be a schedule of the process and adequate resource to maintain quality. The need of ISO 9000 may come from customer need, organization need or supplier request. The organization must process the system under ISO 9000 requirement. The organization must create the quality system, quality manual and may need training for the employees. However, the organization needs co-operation from all employees, especially management. The Office of Graduate School serves the students and instructors. The service is the product of Office of Graduate School, especially the documents. The system of ISO 9000 can make the Office of Graduate School sure that many documents can be identified where they are.

In the future, this project will be the prototype and the direction for the Office of Graduate School to apply for ISO 9000 2000. Moreover students who would like to learn more about ISO 9000 can use this project as a guideline.

ACKNOWLEDGEMENTS

I would like to take this opportunity to express my gratitude to the following people. Without them, this project would have never been possible.

The first mentioned person to whom I wish to express sincere gratitude is my project advisor and dean of Master of Sciences in Computer and Engineering Management, Dr. Chamnong Jundthirapanich, whose invaluable advice, patient assistance, and continuous encouragement motivated me to complete the project. I would like to express my appreciation to all my respected instructors, as well.

I would like to thank Dr. Kitti Phothikitti, Mr. Rangsana Traibutra and the staff of the Office of Graduate School for their help in securing the data and information for use in this project.

Besides, I wish to express my sincere appreciation to my friends. Even though I cannot list all their names on this page, please be assured that I will always remember their great friendship forever.

The last, whom I would like to express my deepest gratitude to, are my parents. Whenever I am tired or lose encouragement, my parents add great love, understanding and encouragement as fuel to my life.

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I. INTRODUCTION

1.1 Background

The most important factor that make an organization achieve success is the quality of goods and services. Any organization can develop its product and service to serve customers' need and attempt to develop higher quality than what the customers expect. That organization will achieve higher market share and higher profit.

Quality in this case never happens by accident. It depends on the effort of the manager and every body in the organization who bring experience to be applied and create quality in every step of the work process.

Quality evolution of product and service are continuous. Before the industrial revolution. Quality control was performed by checking every product from the factory. But the industrial revolution brought about mass produced goods. Quality control has to be done by using random sampling technique on finished goods to check the quality. This technique can reduce time and expenditure, and develop quality control system. The statistical technique has been developed for planning and controlling every step since raw material, process of work until finished goods. This technique is acceptable in economy and industry worldwide.

Quality management system was developed from quality control system since 1970. The organization can use quality management system as a guide to manage the effective process and achieve quality and customer satisfaction. The analysis of customer need can be performed by quality management system to improve the quality of product to make customers satisfied. This condition makes the quality of product and service satisfy the regulation.

Quality management system does not only emphasize on the quality of product and service as in the past, but it emphasizes on the management system with structure. There must be communicating policy and quality goal in an organization. There must be a schedule of the process and adequate resource to maintain quality.

The advantage of quality management system makes the organization applicable worldwide. The economy accepts the condition of quality management system. Then a worldwide standard was set up as *International Organization for Standardization* or ISO 9000.

1.2 Objective

Thai Industrial Standards Institute of Thailand announced the ISO for the first time in year 1991. Organizations both government and non - government try to apply for it widely. Organizations try to manage and improve their system to match with the ISO 9000 system.

There are several industrial sectors which achieve the ISO 9000 certification for example Agriculture (51), Textile (106), Electronic (245), Construction (57), Vehicles (217), Hospital (251), Restaurant (13), Telecommunication (290), Insurance (14), and Education (126). Examples in education sector is Saint John's University, Mahanakorn University, Ramkhamhaeng University sections Admin & record and IT service, St Joseph Convent School, and Assumption College.

The main objective of this project is to give information to people who would like to understand the ISO 9000 system in education sector. This project will show and compare the difference of work process between current system and ISO 9000 process.

1.3 Scope

ISO's purpose is to facilitate international trade by providing a single set of standards that people everywhere would recognize and respect.

The ISO 9000 2000 Standards apply to all kinds of organizations in all kinds of areas. Some of these areas include manufacturing, processing, servicing, printing, forestry, electronics, steel, computing, legal services, financial services, accounting, trucking, banking, retailing, drilling, recycling, aerospace, construction, exploration, textiles, pharmaceuticals, oil and gas, pulp and paper, petrochemicals, publishing, shipping, energy, telecommunications, plastics, metals, research, health care, hospitality, utilities, pest control, aviation, machine tools, food processing, agriculture, government, education, recreation, fabrication, sanitation, software development, consumer products, transportation, design, instrumentation, tourism, communications, biotechnology, chemicals, engineering, farming, entertainment, horticulture, consulting, insurance, and so on.

The ISO 9000 has many processes and details. This project will compare some processes of ABAC graduate office for easy understanding. The project itself is not concerned about research from students. The ISO concept requires a third party to confirm that the organization will follow the ISO process.

II. LITERATURE REVIEW

2.1 The history of ISO 9000

Quality system standards are a way of looking beyond product testing to technical, administrative and human factors that determine an organization's quality. They contain guidelines that can be implemented within an organization and verified by auditors. The last 25 years have witnessed the birth of many quality system standards, but we shall consider only the ISO 9000 standard.

In the early 1979, the British Standards Institute published a series of standards, known as the BS 5750 series, for use by manufacturing companies. This was based on the more military product-specific NATO manufacturing standards, although substantially modified for application to Quality Management systems. This standard was enforced through assessments and audits.

In 1987, the British Standards Institute revised the standard to include service-providers as well as manufacturing companies. Additional requirements on internal verification by the company were added and the standard was generally clarified and strengthened. In 1988, the BS5750 standard was adopted by ISO without changes and was published internationally under the ISO 9000 name.

In 1994, ISO 9000 was again revised and published internationally. The changes involved the correction of some mistakes within the standard and more importantly, clarification of what was actually meant by many sections. In particular, the sections covering Process Control, Corrective Actions, and Servicing were strengthened and clarified.

In December 2000, the standard was re-structured. Although widely touted as being completely different, the new standard has many similarities. It has a new

emphasis on continually improving processes and products, and a reduced emphasis on the need for procedures.

It has also been substantially restructured so as to make the grouping of the requirements more sensible.

In addition, the various versions of ISO 9000 were withdrawn and replaced by ISO 9001:

- (a) ISO 9002, which was ISO 9001 without the design elements
- (b) ISO 9003, which was only concerned with activities relating to final inspection of goods

These were replaced by ISO 9001:2000. Rather than selecting ISO 9001, ISO 9002 or ISO 9003, you now need to show which sections don't apply and give a good reason why not.

There are a number of other standards and guidance documents which have been amended to reflect the requirements of ISO 9000. For example :

The U.S. Food and Drug Administration (FDA) has revised its Good Manufacturing Practice (GMP) regulations for medical devices to follow ISO 9001 with appropriate additional requirements.

The International Organization for Legal Metrology (OIML) has developed a document entitled: "Quality Assurance as Applied for Initial Verification of Measuring Instruments, " which provides guidance on the applicability and use of the ISO 9000 Standard Series in the manufacture of measuring instruments.

Today, the ISO 9000 series has all but replaced other, more parochial standards. In only a few short years, the term "ISO 9000" has become synonymous with quality - not just in English, but in most every language used to conduct trade and commerce.

(<http://www.iso-9000.co.uk/>)

2.2 Need of ISO

If there were no standards, we would soon notice. Standards make an enormous contribution to most aspects of our lives - although very often, that contribution is invisible. It is when there is an absence of standards that their importance is brought home. For example, as purchasers or users of products, we soon notice when they turn out to be of poor quality, do not fit, are incompatible with equipment we already have, are unreliable or dangerous. When products meet our expectations, we tend to take this for granted. We are usually unaware of the role played by standards in raising levels of quality, safety, reliability, efficiency and interchangeability - as well as in providing such benefits at an economical cost.

ISO (International Organization for Standardization) is the world's largest developer of standards. Although ISO's principal activity is the development of technical standards, ISO standards also have important economic and social repercussions. ISO standards make a positive difference, not just to engineers and manufacturers for whom they solve basic problems in production and distribution, but to society as a whole.

The International Standards which ISO develops are very useful. They are useful to industrial and business organizations of all types, to governments and other regulatory bodies, to trade officials, to conformity assessment professionals, to suppliers and customers of products and services in both public and private sectors, and, ultimately, to people in general in their roles as consumers and end users.

ISO standards contribute to making the development, manufacturing and supply of products and services more efficient, safer and cleaner. They make trade between countries easier and fairer. They provide governments with a technical base for health, safety and environmental legislation. They aid in transferring technology to developing

countries. ISO standards also serve to safeguard consumers, and users in general, of products and services - as well as to make their lives simpler.

When things go well - for example, when systems, machinery and devices work well and safely - then often it is because they conform to standards. And the organization responsible for many thousands of the standards which benefit society worldwide is ISO

Obviously, one reason to implement and certify to ISO 9000 is that some customers may require it. Customers recognize the value of ISO 9000 certified suppliers. Additionally, some industries require companies to evaluate and audit their suppliers. The requirement to audit these suppliers is often waived for ISO 9000 certified suppliers, thus saving the company money.

As the purpose of the standard implies, companies should want to implement the ISO 9000 standard to improve their effectiveness and increase customer satisfaction. Improved system effectiveness and customer satisfaction typically result in greater profitability through gains in efficiency and increased sales from happy customers.

Some of these benefits can be obtained by implementing and complying with the ISO 9000 standard without going through the registration process. There are some benefits to be expected from registration however. Often times, when companies implement a new system, it becomes their current item of interest and soon fades with the concerns and pressures of business. It is very difficult at times to maintain interest and support for a system over a long term.

The certification or registration process includes regular visits by the registrar to ensure the system is maintained. Also, the outside perspective of the auditors can be of benefit as well. A system developed and implemented internally may fall short in some areas through no fault of the personnel involved. The objective perspective of an auditor

may strengthen the system in weak areas and provide the organization with additional benefit.

Implementing your ISO 9001 system represents a major effort. Some things will go rapidly, some will be frustratingly slow. It is essential that you get Top Management and all key personnel on board and not let the effort stall. It is usually harder to get the effort restarted than it was to get started in the first place.

Although it won't seem like it at first, your ISO 9001 system should ultimately provide significant benefit to your organization. The systematized continuous improvement should provide efficiency gains in all areas. Improving customer satisfaction should also improve sales and ultimately the bottom line. If an area of your program appears to be too bureaucratic and non-value-adding, it may be a target for continuous improvement efforts.

After you're certified and have had your program in place for a year, you'll wonder how you managed without it.

(<http://www.qualitybiz.com/>)

2.3 The Benefits of ISO Certification

ISO 9000 provides a framework and systematic approach to managing business processes to produce a product/service that conforms to customer expectations. For customers, the certification of suppliers to ISO standards means that they can be assured that the development of their products and services are compliant to reference documents that are globally accepted. This, of course, means that customers and suppliers are able to compete in markets around the world.

The benefits of becoming certified are numerous; companies should ensure that they are pursuing certification for the right reasons:

- (1) To improve business processes and save money. Most companies implementing ISO 9000 certification report increases in business process efficiencies, reductions in waste, and improved product quality.
- (2) To qualify for new customers. Many corporations see ISO 9000 Certification as an essential requirement for conducting business with a new vendor.

(<http://www.isixsigma.com/>)

2.4 ISO 9000:1994 Overview

The original set of quality assurance standards, commonly known as ISO 9000, was published in 1987 by ISO. The standard was initially based on British Standard 5750 and modified as appropriate to address issues of all member nations. The ISO 9000 series of standards are translated into many different languages and must be equal in all languages. This has resulted in the wording of the standard to be somewhat awkward at times.

The purpose of the ISO 9000 standard initially (1987 & 1994 revisions) was to provide a company with the minimum requirements for a quality system to be effective in providing customers with products of a consistent quality that met their requirements. Certification or Registration (the terms are used interchangeably) to ISO 9001, 9002 or 9003 provided customer organizations with confidence that a supplier had implemented an appropriate quality system, therefore providing a more reliable quality of product. If problems with the quality of products should arise, the customer complaint and corrective action system would ensure correction of the problem and prevention of recurrence.

The standards were updated in 1994 (ISO9000:1994) and again in December 2000 (ISO9000:2000). All companies certified to one of the earlier ISO9000:1994 standards

are required to re-certify under the latest ISO9000:2000 standard by December 2003 in order to maintain certification. This section is provided for reference only.

The old ISO 9000:1994 Series was a set of five individual, but related, international standards on quality management and quality assurance. They are generic in nature and not specific to any particular product or service. These standards were developed with the goal of effectively documenting the quality system elements to be implemented in order to maintain an efficient quality system in a company. However, the standards themselves do not specify the means to be used for implementing the quality system elements.

ISO 9000 is the first standard in the series and is entitled "Quality Management and Quality Assurance Standards - Guidelines for Selection and Use." This section presents an overview of the whole set and guidelines for use of the rest of the series.

ISO 9001, 9002 and 9003 are quality system models for external quality assurance. These three models are actually successive subsets of each other.

ISO 9001 is the most comprehensive, which covers design, manufacturing, installation and service.

ISO 9002 covers production, installation and servicing.

ISO 9003 covers only final product inspection and testing.

Under ISO9000:1994, The company would have chosen one of the above "auditable" standards to measure its quality system against. It would serve as the guideline for an independent third party audit of company operations against the requirements of the appropriate standard.

ISO 9004 is the fifth in the series. It provides guidelines for internal use by a producer developing its own quality system to meet business needs and take advantage of opportunities.

(<http://www.qualitybiz.com/>)

2.5 The Newest ISO 9001:2000 Standard

ISO 9000:2000

ISO 9000 describes the fundamentals of a quality management system and the definitions of terms used in ISO 9000, 9001, and 9004. The philosophy, intended purpose and general nature of the elements of the quality management system are also discussed. As with any requirements document, whether legal, regulatory, or voluntary, the definitions are a very important part of the document. Through these definitions, the scope and intent of the specific requirement are defined.

The 2000 version of the standard focuses more on management, the customer, and continuous improvement. This version establishes a management system model that is intended to continually improve customer satisfaction and the effectiveness of the management system. It is based on eight Quality Management Principles to be used by management as a guide towards improving performance. The principles were derived from the experience of experts on the technical committees and represent the main elements that a good quality system must have.

The official changes to the ISO 9000 standard took effect on December 15th, 2000. The basic tenants of quality remain the same, but the philosophy has shifted to the "Plan-Do-Check-Act" improvement cycle used in ISO 14000 standards

Plan-Do-Check-Act

The quality management system structure is now viewed as a series of processes versus the 20 required elements as described in ISO 9001:1994. The process-based structure is based on the "Plan-Do-Check-Act" improvement cycle used in ISO 14000 standards.

Plan : First, start with a plan. Develop assumptions about the desired outcome and determine what resources will be needed, how they will be applied, and ensure that the plan is feasible. Make sure you have "measurable goals" or "effectiveness criteria" so others will know when the goal has been achieved.

Do : Then implement the plan. Deploy the resources and execute the plan.

Check : Evaluate the results. Every good plan must have built-in checkpoints or effectiveness criteria to ensure that the results are as planned. If the results are NOT as planned then STOP and fix the plan.

Act : Communicate the "lessons learned". Act on the data gathered from the "check" phase and go back to the first step and update the plan with this new information to ensure that you are moving forward as planned. Most importantly, communicate the information to others to improve the process.

This process-based structure uses an improvement cycle to ensure that outcomes are as planned or else the trajectory is adjusted so that you will eventually reach the desired outcome. It sounds simple but how many times does the lack of time drive the process and the result becomes... READY - FIRE! - AIM... *

The ISO process is designed so that you "say what you are going to do" and then you "do what you said"

(<http://www.qualitybiz.com/>)

2.6 Transitioning from ISO 9000:1994 to ISO 9000:2000

The International Organization for Standardization is chartered to revise and update the standard approximately every five years. Considering the effort involved in revising, translating, and obtaining agreement from the various nations, it is no wonder that the revisions have taken six to seven years.

The changes to ISO 9000 were officially released 15 December 2000. All companies certified to one of the earlier ISO 9000:1994 standards have three years from the release date to re-certify under the latest ISO 9000:2000 standard in order to maintain certification.

There were 20 required elements included in the ISO 9001:1994 auditable standards which served as guidelines to personnel for ensuring complete and thorough quality assurance system development and documentation.

The new ISO 9000:2000 standard is now formed around eight management principles that use a process cycle instead of discrete elements. Therefore, the 20 required elements have been replaced by new standards that resemble the old elements.

(<http://www.qualitybiz.com/>)



III. RESEARCH METHODOLOGY

3.1 Overview

ISO Quality Management Systems

Objectives

To assure that a company or division will meet the ISO 9000 requirements and receive certification, the following process should take place:

(A) Management Decision and Commitment

The organization must have clear policies, defined objectives and an effective system to get it where it wants to go. The first step in this process is to decide what the objectives are. These need to be documented and made known to all staff. The next step is to define how all relevant tasks are performed, and make sure that everyone knows about the sections that affect them. This means that the organization must create a documented system, describing the organization's quality system, policies and its operating instructions where needed, plus the procedures required by ISO 9000. This will :

- (1) define the structure of the organization, and the responsibilities, lines of communication, etc
- (2) define what the tasks are
- (3) define who is responsible for each task
- (4) ensure continuity as new employees join the team and others depart
- (5) clarify exactly what actions are to be conducted
- (6) define what information is to be recorded and who should do it

(<http://www.iso-9000.co.uk/>)

Commitment from CEO

ISO Policy

ISO Philosophy

Office of Graduate School, under the motto, "We serve with JAI" Joyful, Active and Impressive strive to be the center of educational services of the graduate level with international standards.

ISO Policy

As the leader of universities in Thailand the office shall conduct a job analysis to better improve the plan for HRD development in lucrative skills to leverage the performance of the office. Systematic analysis will be applied to each job as well as participation from management will be encouraged. Assessment of performance will be timely conducted for better quality services.

- (1) Development of effective service to provide highest satisfaction to recipients.
- (2) Establishing innovation of advanced services by using information technology for the effectiveness of internal services.
- (3) Developing work system to achieve international standard level by assessment of mechanism, and pursuant of assessment to gain quality management.
- (4) Personnel development to gain knowledge and ability, dexterity and interpersonal skills.
- (5) Personnel development to gain virtues and ethics.

President

Signature

BRO. DR. Bancha Saenghiran.

Commitment of Current Employee

Date

Subject Acceptance of ISO 9000 system

Dear _____

My name Mr. / Ms. _____ is the staff of Office of Graduate School as the contract between Assumption University and me since the day _____

I agree and accept the policy of the Office of Graduate School to strive and maintain the system of ISO 9000. I shall take every action under the policy of the Office of Graduate School and the order of my command to maintain the system of ISO 9000 as long as I am the staff of Assumption University.

Yours,

(Mr. / Ms. _____)

Date

Commitment of New Employee

Date

Subject Acceptance of ISO 9000 system

Dear _____

My name Mr. / Ms. _____ is the staff of Office of Graduate School as the contract between Assumption University and me since the day _____

I agree and accept the policy of the Office of Graduate School to strive and maintain the system of ISO 9000. I shall take every action under the policy of the Office of Graduate School and the order of my command to maintain the system of ISO 9000 as long as I am the staff of Assumption University.

Yours,

(Mr. / Ms. _____)

Date

(B) The Management Representative

Before getting started, someone must be made responsible for getting the system implemented. This person must also have the authority and resources which are needed for the task.

The organization must appoint a senior member of its management to head the project, and this person must have sufficient authority and freedom to take whatever action is required to make the system work. The person selected may be known as the "Quality Champion", or "Quality Manager" or some other title, but is referred to by the standard as the "Management Representative".

(<http://www.iso-9000.co.uk/>)



Management Representative

Date

Subject Appointment of Representative

Dear All staff

The Office of Graduate School has a project to conform to the ISO 9000. We realize the importance to achieve ISO 9000 certification.

I Bro. Dr Bancha Saenghhiran appoint Ph. D. Kittu Phothikitti to head this project and Mr. Rangsana Traibutra as assistant. I give authority and freedom to both Mr. Kittu and Mr. Rangsana to take every action required to make the system work.

I hope all staff of Office of Graduate School will co-operate well.

President

Signature

BRO. DR. Bancha Saenghhiran.

Date

(C) Defining the system

From this point, the needs of the customers, and indeed, who the customers really are, must be defined. In the case of an administration department, for example, its customers will be the recipients of its services, e.g. internal customers - other departments within the organization - and external customers.

Next, the activities of each area must be documented in sufficient detail. Where there are various ways of performing the same task, it is generally best for the relevant head to decide which is the best way to conduct the activities and to standardize on that, or else to clearly define the conditions under which method is used (i.e. if condition X, do action A; if condition Y, do action B otherwise do action C)

Once the activities have been documented, they must be reviewed so as to ensure that sufficient data is collected at key points to enable problems to be discovered and to measure the effectiveness of any resulting changes. In addition, the requirements of the standard must be reviewed to ensure that they have all been addressed. Where problems are discovered, the activities must be altered to meet the requirements, or else the documented procedures amended to reflect best practice.

(<http://www.iso-9000.co.uk/>)

(1) Scope

Quality system of Office of Graduate School has a scope under the activity of Assumption University which serves students and lecturers.

(2) Except

The quality system of Office of Graduate School processes under the standard of ISO 9000-2000 except the topic 7.3 Design and Development. The process of Office of Graduate School is only service. There is no design and develop any product.

(3) Policy

The office shall conduct a job analysis to better improve the plan for HRD development in lucrative skills to leverage the performance of the office. Systematic analysis will be applied to each job as well as participation from management will be encouraged. Assessment of performance will be timely conducted for better quality services.

(4) Objective

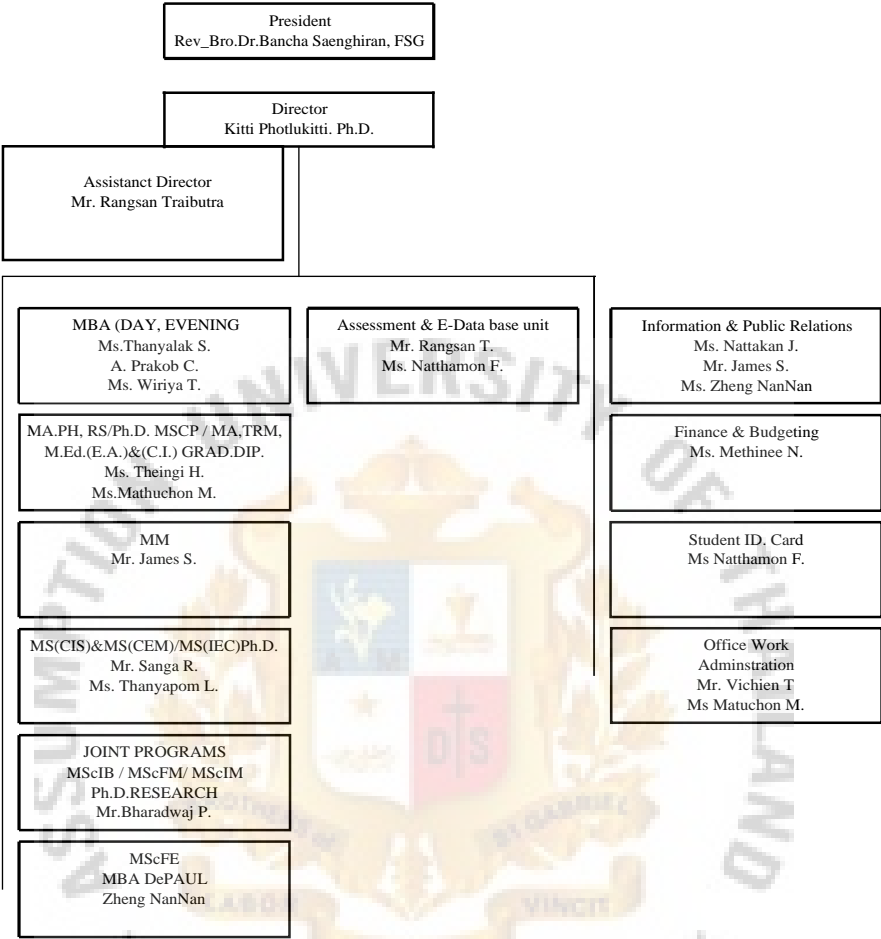
- (a) To be a leader in managing educational information at graduate level implementing information system.
- (b) To provide service in correspondence to the highest needs and satisfaction of recipients.
- (c) To cultivate integrity in the awareness of quality life of interpersonal relationship for effective living

Product Characteristic

The product of Office of Graduate School is service to students and instructors.

Organization Chart

Effective Date_____



Unit 1 Information and Public Relations

Subject 1.1 Selling Application Forms

(1) Objective

To control selling of application forms in order to serve new applicants.

(2) Scope

This quality procedure is used in the office of graduate school.

(3) Definition

Prospective students prepare for the exam.

(4) Process

Step 1. Staff

Provide application information.

Provide brochures and leaflets at the advertising boxes and shelves.

Assist and / or provide application form (running number, separated by programs).

Step 2. Staff *

Serves information and advertising.

Give required the information at service counter, by telephone, Internet, newspapers and direct mail.

Step 3. Staff

Sell application forms.

Select program of study.

Sell forms for 400 baht / set.

Issue receipt for applicants.

Collect money and change.

- Step 4. Staff
- Office of Financial Management
- Clearance of receipt and cash.
- Sign in receipt book.
- Step 5. Prospective student
- Collect application form.
- Collect receipt and change, if any due.

Subject 1.3 Room and Class Reservation.

(1) Objective

To control the room and class reservation according to the time table.

(2) Scope

This quality procedure is used in the office of graduate school.

(3) Definition

(4) Process

Step 1. Lecturers

Lecturers order request

In person, by phone, e-mail to cancel class, make-up class, room change and class facilities

Step 2. Staff

Record all requests in the book.

Take note

Step 3. Staff

Reserve room / facilities.

Send memo or inform by phone to

1. Admin office
2. Audio visual
3. Computer lab

Step 4. Staff

Announcement

Record in book

Post on board

Update in web site

Inform Lecturer



(D) Document & Record Control

The organization will need to ensure that all staff use the correct form of paper. This includes drawings which are used for manufacturing purposes, instruction sheets (work instructions, procedures, etc.), forms which are used to record information (sales order forms, purchase orders, delivery notes, etc.) and so on.

The system must be set up to make sure that old versions of documents are removed from use and new versions are distributed to all those who need them. Record must be kept for the changes made to documents, and there should be some method of identifying which version is which.

In addition, required records must be identified and controlled. (i.e. those, which ISO 9001:2000 requires, and also those which the organization requires in order to run the business).

There must be procedures for both of these types of control.

Record Revised Form

Revise 1

Topic Room and Class Reservation

Date October 14, 2003

Name Mr. Vichiean Thongdee

Detail Lecturers must request room and class by completing the reservation form.

The reservation form must be submitted to the Office of Graduate School 5 days in advance.



Quality Procedure

Effective Date September 1, 2003

Record Revised Form

Revise 1

Topic Room and Class Reservation

Date October 14, 2003

Name Mr. Vichiean Thongdee

Detail Lecturers must request room and class by completing the reservation form.

The reservation form must be submitted to the Office of Graduate School 5 days in advance. The staff must prepare at least 20 copies of the reservation form for lecturers.

Approved by

(_____)

(President)

Date

Document Control Form Department the Office of Graduate School

Effective Date September 1, 2003

Name / Number of document Reservation Form

Revised time 0

Effective date of document October 12, 2003

Reference

Source of document Shelf Number 1

Name / Number of document _____

Revised time _____

Effective date of document _____

Reference _____

Source of document _____

Name / Number of document _____

Revised time _____

Effective date of document _____

Reference _____

Source of document _____

(E) Training

The organization must make sure that the staff are suitably trained and/or experienced, so that they are capable of carrying out their allotted tasks. The organization must keep records of their previous experience and education and also of the training that is provided (whether it is on-the-job, show-and-tell, external training, etc.).

The organization should be aware of previous experience and/or training of the staff. It should be aware of the required abilities needed to accomplish the various tasks within the organization. Also, it should be aware of any future changes to operations which may involve requirement for new skills (new equipment, new products, etc.).

By combining these facets of knowledge, a set of requirements for further training, (on-the-job, external, etc) can be identified which will ensure that the staff are able to conduct the required tasks. A procedure may not be required for this, but it may be useful.

(<http://www.iso-9000.co.uk>)

Training

Record Form

Training Date October 14, 2003

Time 13.00 P.M.

Subject of training Reservation Form

Objective All lecturers can address and complete the reservation form correctly.

Target Group All staff of Office of Graduate School.

Process On the job training.

Schedule 13.00 P.M. trainee explains the reservation form and inform its locate.

Location Office of Graduate School

Name 1. _____ Time in _____ Time out _____
 2. _____ Time in _____ Time out _____
 3. _____ Time in _____ Time out _____
 4. _____ Time in _____ Time out _____

Signature _____

(Mr. / Ms. _____)

Human Resource Management Department

Date

(F) Internal Quality Auditing.

After sufficient time has elapsed, the activities must be checked by an independent person, working on behalf of the organization. This is known as Internal Quality Auditing. The auditor will ensure that the activities are being conducted as described in the documented system, and are sufficient to meet the requirements of ISO 9000. Where problems are found, the documented system or the activity itself must be altered.

From this point onwards, the cycle of audits, review, determination of changes and then re-audits followed by review, etc. is a never-ending cycle, which should lead to continual incremental improvements.

The organization must have a procedure to describe how audits are planned, conducted and recorded.

Internal Quality Audit

Annual audit year 2003

ISO. Requirement Document Control

Quality Procedure Room and Class Reservation

Period Second quarter

ISO. Requirement _____

Quality Procedure _____

Period _____

ISO. Requirement _____

Quality Procedure _____

Period _____

Approved by _____

(Mr. / Ms. _____)

Date _____

Internal Quality Audit

Audit of Second Quarter 2003

ISO. Requirement	Document Control
Quality Procedure	Room and Class Reservation
Period	Second quarter
Auditor	Name

Date / Time

REMARK

ISO. Requirement

Quality Procedure

Period

Auditor

Name

Date / Time

REMARK

Approved by

(Mr. / Ms.)

Date

(G) External Assessments

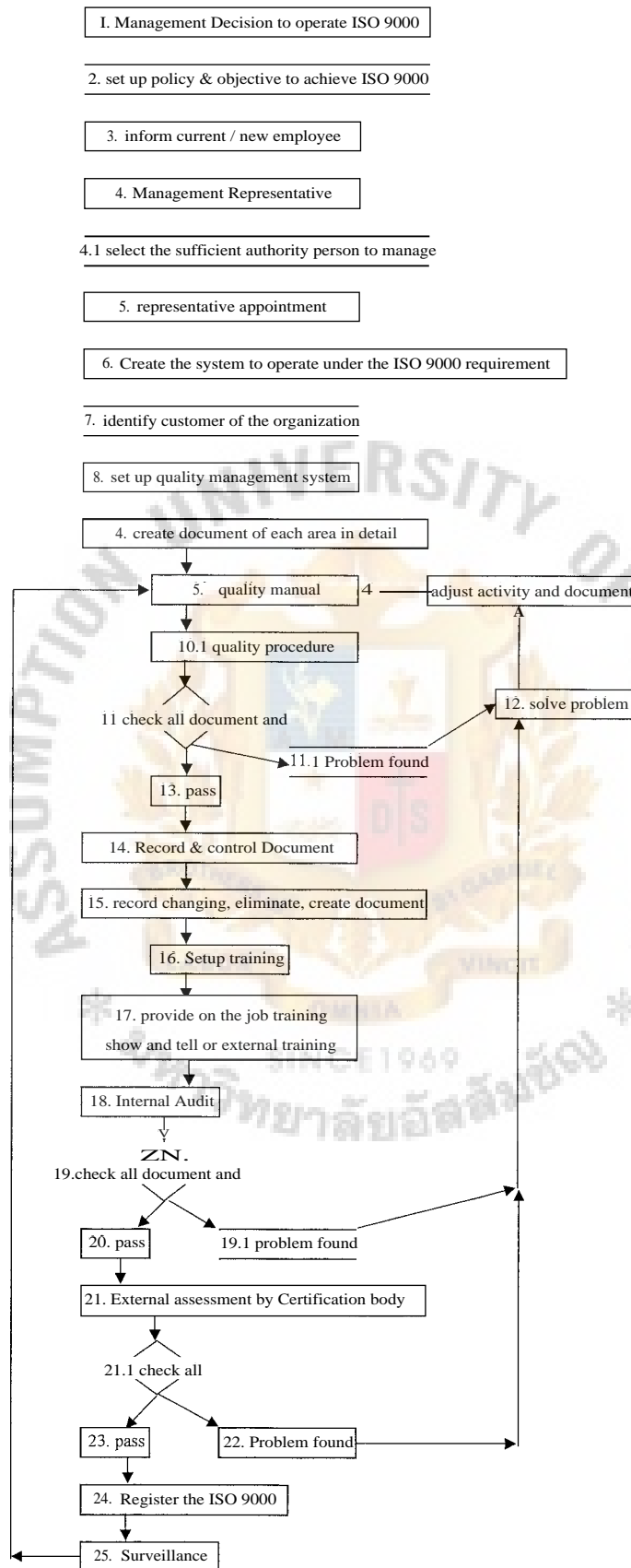
The final stage is the assessment by the Certification body. If your Internal Quality Auditor is worth his salt, then this should not hold any fears for you.

The Certification Body will check that system of the Office of Graduate School addressing all the requirements of ISO 9000, and that the activities are appropriate to the likely expectations of customers.

Like Internal Quality Auditing, the assessors will keep coming back to check on all aspects of the system, in a never-ending cycle of tests. Where problems are found at the Office of Graduate School the documented system or the activity itself must be altered, ready for re-checking by the assessors at their next assessment.

This means that the Office of Graduate School must operate all process forever.

The Office of Graduate School may contact the Management System Certification Institute (Thailand). The MSCI is the network institute of Thailand Industrial Standard Institute (TISI) which has been accredited for quality management system certification program by the Office of the National Accreditation Council (ONCA) and The Joint Accreditation System of Australia and New Zealand JAS-ANZ. Contact MSCI by phone number 02-617-1727.



Steps to ISO 9000

When the organization has a need of ISO 9000, which may be from customer need, organization need, or supplier request, the process of steps to ISO 9000 will be performed as the steps below.

- (1) The top management must decide to perform the ISO 9000. The organization must decide what is their objective and policy.
- (2) Then the top manager must set up the objective and policy clearly. The objective and policy must be clear to achieve the success of ISO 9000 certification.

- (3) The manager must inform the objective and policy to all employees.

Next, organization must find someone to be responsible for operating the system.

- (4) The Management Representative must be a person who has sufficient authority and freedom to operate all actions required.
- (5) The top manager must appoint a manager to be responsible for the process of ISO 9000 operation.

The organization has a team of management, which can create the system to operate ISO 9000.

- (1) The organization must create a system to manage the operation.
- (2) The organization knows the need of customers and who the customer is. The organization must identify the real customer.
- (3) The organization must set up quality management. Quality management is a system and not only a document.
- (4) The activity of each area must be documented in detail. Then create the document and write the activity down on paper.
- (5) The documents include quality manual and quality procedure.

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- (6) All documents must be check and summarized by the manager. If there is any problem, it must be solved.
- (7) The activity and document can be changed. If the activity must be changed, the organization must consider quality management. If the document must be change, quality manual is more concerned.
- (8) If there is no any problem in the document and activity, management can pass to the next step.

The organization must make sure that all of the staff use the correct piece of paper.

- (1) The organization must record and control all documents.
- (2) The manager must create the system to record the changing, and eliminating and create the document. The documents need name, running number and effective date to identify itself.

The organization must make sure that all staff are suitable for training. The organization must consider the current and past experience including education of the staff.

- (1) The organization needs to set up training for all staff
- (2) The training may be prepared and set up by the manager. Training can be on-the-job training, show and tell or external training.

After all the above processes are complete, the organization is ready for internal audit.

- (1) Internal audit will check the activities. All activities must be performed as described in the document. The auditors will have their schedule for checking the activity of the organization.

- (2) After the auditor has checked and assessed the process, and if there is any problem found it must be solved. After solving the problem, the organization can adjust the activity or document.
- (3) When the organization passes the internal audit, it is now ready for external assessment.

The external assessment is performed by the certification body.

- (1) External assessment of the certification body will check all processes of the organization.
- (2) The organization can not register for ISO 9000 if the assessment finds any problem.
- (3) The problem must be solved and adjusted.
- (4) If there is no problem in the document and activity, the organization can register for ISO 9000.
- (5) After the organization registers for ISO 9000, the certification body can come back for surveillance at any time they want.

IV. SYSTEM EVALUATION

4.1 Overview

When the Office of Graduate School prepares all steps and documents to register for ISO 9000-2000, it must make sure that all processes and documents are complete. Whether the Office of Graduate School can pass the certification body or not depends on the completeness of process and document.

Certification body's assessment will be performed by the external audit. Before the assessment, the internal quality audit who is an independent person will check the system. The audit will make sure that all activities have been performed. The audit will check three areas which are,

- (1) General requirement
- (2) Document requirement
- (3) Quality management

If the organization does not prepare in these three areas, the quality system will be ineffective.

4.2 Quality Manual Audit

The internal quality audit will check three areas. First is the quality manual which must cover the quality system. Second is, the system must be controlled. The third is the staff can take the document when they need it.

Office of Graduate School must make sure that all documents must have the effective date, source of document, revised time, etc. The quality manual must cover all activities of Office of Graduate School.

The audit will check the signature of approval, effective date of document, and address of document if they are required. If there is anything which is not complete, the audit will record the error for correction.

4.3 Audit Document Control

The distribution of document is required and it must be related to the quality system. The audit will make sure where can find the document when it is required. The document must have the name of the person who is responsible including name and control number of the document. The document also requires the effective date, revised date and the approval.

The audit will make sure that the obsolete document must be cancelled, and the new one must be approved before becoming effective. The person who is responsible must confirm the new document before using it.

4.4 Audit Quality Management

This section is attention on customer focus, process approach and continual improvement. The Office of Graduate School must focus on the customer or student and lecturer for every request. Mostly, the Office of Graduate School answers questions from students many times a day. The lecturers request more for infrastructure and class reservation.

The process approach is the Office of Graduate School must operate the system of ISO 9000-2000 in all areas. After the Office of Graduate School completes all requirements of ISO 9000-2000, the last one is continual improvement of the ISO 9000-2000 system. After the Office of Graduate School is certified by the ISO 9000 body they must operate the system for a long period. The Office of Graduate School can improve the process of work and be updated in the ISO 9000-2000 document requirement.

V. CONCLUSION AND RECOMMENDATION

Conclusion

If there were no standards, we would soon notice. Standards make an enormous contribution to most aspects of our lives - although very often, that contribution is invisible. It is when there is an absence of standards that their importance is brought home

ISO (International Organization for Standardization) is the world's largest developer of standards. Although ISO's principal activity is the development of technical standards, ISO standards also have important economic and social repercussions. ISO standards make a positive difference, not just to engineers and manufacturers for whom they solve basic problems in production and distribution, but to society as a whole.

The International Standards had been established in 1988 under the ISO 9000 name. In 1994, ISO 9000 was revised again. The changes involved the correction of some mistakes within the standard and more importantly, clarification of what was actually meant by many sections.

In December 2000, the standard was re-structured. Although widely touted as being completely different, the new standard has many similarities.

The need of ISO 9000 may come from the customer need, the supplier request or the organization need.

When the organization needs ISO 9000 they must prepare the process of document and management in order to acquire the ISO 9000.

First of all the management must have the policy and objective of ISO 9000. Then the CEO of the organization must represent the manager to control and develop the

process of ISO 9000. Then the organization must identify the customer of their organization and the customer of each area.

The next is to create quality manual, quality procedure and document and record control. Then train all the staff based on experience and future requirement. When the organization is ready for internal audit, the auditor will make sure the activities are conducted as described in the document system. If there is any problem in the document or the activity it must be changed.

The final stage is the assessment by the Certification body. If the organization can pass this, it means that they must perform the system for a long period.

Recommendation

Many organizations are interested to apply for the ISO 9000. They must consider the need and the objective of ISO 9000 for their organization. The need of ISO 9000 might come from customer need, organization need or supplier need. The organization must identify whether that need affects their business or not. There are a lot of factors to consider such as the number of employees and operation cost.

The organization must make sure that their employees are ready for ISO 9000. The employees must have required experience, suitable education for present and future requirements.

However, quality manual and quality procedure must be clear at the beginning. If quality manual and quality procedure are blur, the manager and the employees can not perform the process of ISO 9000.

Before contract with the external assessment, the organization must make sure that the registrar's ISO 9000 certificate are respect in your industry. The customer will be impressed with this certificate. The registration must be authorized to issue ISO 9000 certificate in the specific industry.

One important thing is the cost of ISO 9000 certification. It depends on how long the organization takes time to operate quality management system, including the number of employees involved. However, the organization still requires strong co-operation from all employees.

The organization might spend long time to implement ISO 9000. The document, especially quality manual and quality procedure use a lot of paper. It possible to confuse, lose or not eliminate the paper quality manual and quality procedure. The organization may use the computer helping avoid this problem.

The Office of Graduate School may use the programs to operate quality manual and quality procedure to create, update and changing the information. However the data of the Office of Graduate School, such as personal data profile of students, staff and instructor this must input in the computer system as the database.

The quality manual and quality procedure can be create by programmer. The head topic requirement by ISO 9000 is the need to have in the new program such as effective date, objective, process and revise time. The management representative can operate the quality manual and quality procedure by using the computer create and update the information.

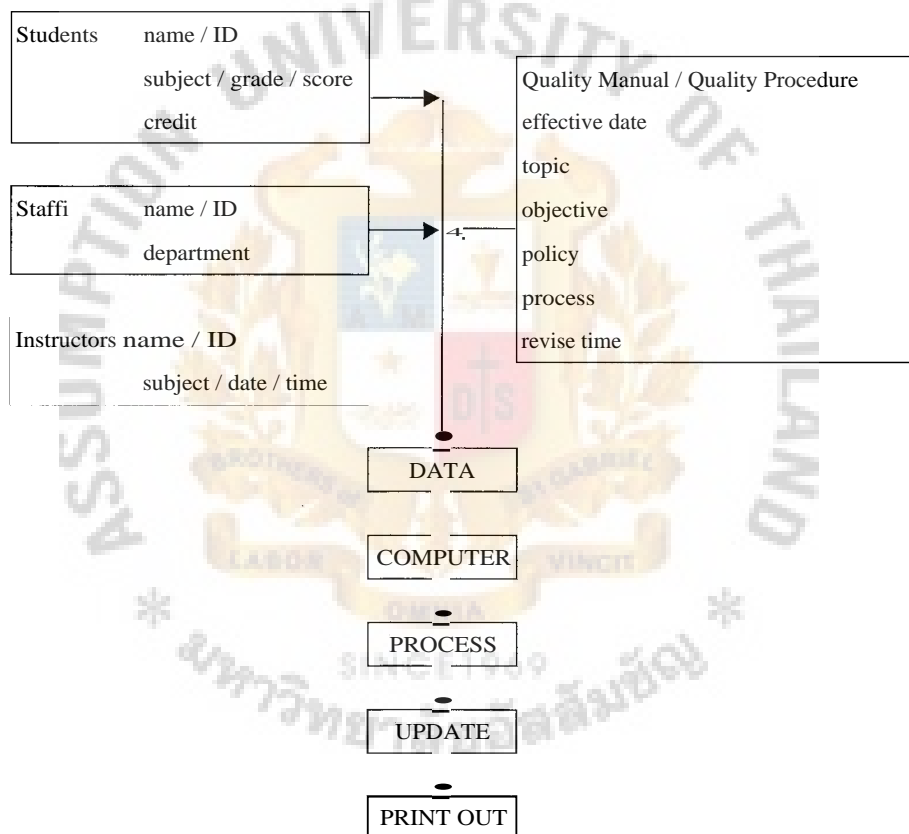
The security level of this program should have 3 levels. First level is read only, this level can be read by the employee of the Office of Graduate School.

Second level should be operate by the management representative. This level is concerned about the information of quality manual and quality procedure. Especially the quality procedure has the process of work, which could be update only by the management representative.

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The third level must be operate together between the management representative and the auditor. This level is concern about the topic requirement from ISO 9000, which could be update while the auditor is allowed.

This program is authorized by the management representative to operate. The employee in the organization can only view the program to operate the process of job.



VI. APPENDIX

This section explains the topic of Quality Management System. This system is required by ISO 9000 version 2000. The requirement aims to improve customer satisfaction and effectiveness of the management system. The system is a guide to improve performance of the organization.



APPENDIX

Quality Management System Requirement

1. Scope

1.1 General

This International Standard specifies requirements for a quality management system where an organization

- a. needs to demonstrate its ability to consistently provide product
- b. aims to enhance customer satisfaction

1.2 Application

All requirements of this International Standard are generic and are intended to be applicable to all organizations, regardless of type, size and product provided.

2. Normative reference

The following normative document contains provisions, which, through reference in this text, constitute provisions of this International Standard.

3. Terms and definitions

For the purposes of this International Standard, the terms and definitions given in ISO 9000 apply. The following terms, used in this edition of ISO 9001 to describe the supply chain, have been changed to reflect the vocabulary currently used:

Supplier --> organization --> customer

4. Quality Management system

4.1 General requirements

The organization shall establish, document, implement and maintain a quality management system and continually improve its effectiveness in accordance with the requirements of this International Standard.

4.2 Documentation requirements

4.2.1 General

4.2.2. Quality manual

4.2 3. Control of documents

4.2 4. Control of records

5 Management responsibility

Top management shall provide evidence of its commitment to the development and implementation of the quality management system and continually improving its effectiveness.

5.1 Management commitment

5.2 Customer focus

5.3 Quality policy

5.4 Planning

5.5 Responsibility, authority and communication

5.6 Management review

6 Resource management

6.1 Provision of resources

6.2 Competence, awareness and training

6.3 Infrastructure

6.4 Work environment

7 Product realization

7.1 Planning of product realization

The organization shall plan and develop the processes needed for product realization.

7.2 Customer-related processes

7.2.1 Determination of requirements related to the product

7.2.2 Review of requirements related to the product

7.2.3 Customer communication

7.3 Design and development

7.3.1 Design and development planning

7.3.2 Design and development inputs

7.3.3 Design and development outputs

7.3.4 Design and development review

7.3.5 Design and development verification

7.3.6 Design and development validation

7.3.7 Control of design and development changes

7.4 Purchasing

7.4.1 Purchasing process

7.4.2 Purchasing information

7.4.3 Verification of purchased product

7.5 Production and service provision

7.5.1 Control of production and service provision

7.5.2 Validation of processes for production and service provision

7.5.3 Identification and traceability

7.5.4 Customer property

7.5.5 Preservation of product

7.6 Control of monitoring and measuring devices

8. Measurement, analysis and improvement

8.1 General

The organization shall plan and implement the monitoring, measurement, analysis and improvement process needed.

8.2 Monitoring and measurement

8.2.1 Customer satisfaction

8.2.2 Internal audit

8.2.3 Monitoring and measurement of processes

8.2.4 Monitoring and measurement of product

8.3 Control of nonconforming product

8.4 Analysis of data

8.5 Improvement

8.5.1 Continual improvement

8.5.2 Corrective action

8.5.3 Preventive action

(Thai Industrial Standard Institute)

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