

Chapter 2

Literature Review

Literature Review

2.1 Introduction

In today's global economy the barriers of trade have been knocked down. Companies have increased their level of performance in order to survive today's aggressive environment. In order to stay competitive, companies must apply effective and efficient plans.

The term quality is now a major factor in the assessment of the facilities and determine their level, it has become important that enterprises and organizations by applying the concept of quality in order to maintain its performance and of course the improvement of the performance, so that the meaning of the word quality must begin with an historical for that word and definitions and how it has evolved into becoming a key factor in assessing the performance of the facilities. ⁽¹⁾

2.2 Date of the emergence of quality

The history of the quality movement to Europe in the seventeenth century when it began craftsmen to organize unions called the trade unions and even the beginning of the nineteenth century was manufacturing in the industrialized world tends to follow this model craftsman, has begun a system of factories focus on examining the output in Great Britain in the mid-1750 and the evolution of Even crystallized in the form of the industrial revolution in the early 1800's. ⁽⁴⁾

At the beginning of the twentieth century, began to factory owners create process quality factories and after that entered the United States World War II, has become a key element in the war effort: Lead, which is made in one of the States, for example, must be consistent with the guns that are manufactured in another state , The

armed forces initially examined during the production and post-processing in order to simplify and expedite the process without prejudice to the importance of safety.⁽⁵⁾

The armed forces began to draw samples for examination, in addition to the publication of standards and military specifications and training courses on methods and means for the control of processes statistically, but after the Second World War has been transferred a large number of U.S. factories to civilian production to military production so as to supply the war machine spare parts and equipment and ammunition, thus affecting the level of domestic production of products used civilians and led to increased waiting lists for many consumer goods such as washing machines, refrigerators and ovens etc.⁽⁶⁾

This resulted in a change to make the managers of factories and business focused and demanding workers and engineers to increase production at any cost, even if it led to a decline in product quality and low quality item.⁽¹⁵⁾

After years of war student of Dr. Edward Deming and engineer Joseph Juran everyone to focus on the quality of the product, rather than focusing on the quantity and thus set up a campaign to educate, but no one responds to them.⁽⁶⁾

It was Japan at that time had begun rebuilding efforts, reconstruction and construction of industrial economic years after the devastating war, were invited by Dr. Edward Deming and engineer Joseph Juran to give several lectures in Japan in front of businessmen and industrialists, engineers and workers at Japanese universities, have found the theory of quality echo widely in Japan and adopted by all plants and factories even become applicable in all over Japan very seriously and were all Japanese goods and products by conducting tests too harsh for the detection of manufacturing flaws and bugs during production.⁽⁷⁾

Has led this important step to improve the reputation of goods and Japanese products in the world where not come out any product from the factory, but has passed

the tests of quality, making the consumer accept, whether in the United States or abroad due to its quality and free of defects manufacturing, has led this application to gain consumer confidence globally and to a marked increase in the share of Japanese products in U.S. markets from 4% to 20% within a few years and to a greater proportion during the following years, which led to the accumulation of products and commodities of U.S. origin stores and the reluctance of consumers about, and resulted in a misunderstanding of the companies and factories of U.S. the time to understand the new reality and the incident in the market and have linked the phenomenon of the direction of customers for those products the Japanese by a factor of price at least worked to hit prices and reduced at the expense of quality and reduce production costs, which led to another drop in quality led to the exit of many companies from the market and thus the share of Japanese products and the dominance of the U.S. and global market.⁽⁷⁾

After years of uncertainty enables Americans access to the password and started in the application of the theory of quality and quality of qualitative and subjecting each commodity or product for the same tests Japanese, but the application is costly because workers and Americans engineers have become accustomed to neglect and lack of focus during the production processes, increasing the proportion of goods and products returned and therefore increased loss and high cost rests with companies and factories, which led to more of them out of the market.⁽²⁹⁾

It was subsequently subjecting the production process the U.S. as a whole to study and re-evaluation of the new because the situation became unbearable was reached to the idea of early intervention before production Item no performance improvement in production lines and succeeded idea is to reduce the cost needed but did not succeed in reaching a new product comparable to the Japanese product.⁽⁸⁾

Then come the Americans later to the secret of Japan, a new principle and sophisticated name Total Quality Management (TQM), developed by the Japanese after their application of the principle of quality (which was an American original,) which is

focused on the development of the quality of each step of the production and the prevention of error before it occurs and therefore not affected by the final product any error.

By the seventies of the last century, expanded industrial sectors in the United States, such as automotive electronics industry because of Japanese competition of high quality, has become known as the U.S. response that focuses not only on the Mini, but the concepts that included the entire (TQM) .⁽²⁾

2.3 Definition of quality

There have been numerous attempts to provide a definition of the concept of quality and the definitions that have resulted from attempts to highlight a particular attribute shall be organized around you. Aside from the differences highlighted by these attempts, however, there are some definitions that imposed itself on the administrative and thought of what it characterized its objective and an accurate reflection of the concept .⁽³⁾

2.3.1 Definition of the U.S. Federal Quality Institute

Quality is the proper performance of the work correctly the first time with relying on an assessment of the beneficiary knows how to improve performance.⁽⁹⁾

2.3.2 Definition of Armand Vijom 1956

Full satisfaction of the client.⁽⁹⁾

2.3.3 Definition Crosby 1979

Conformity with the requirements of the larger the product specifications conform to the requirements of the customer whenever this product is of good quality.⁽⁴⁾

2.3.4 Definition of Joseph Joran 1989

Quality is the suitability of the product for use, regardless of the status of the product .⁽¹⁸⁾

2.3.5 Definition of International Standard 9000:2005

Quality is the degree to meet a set of inherent characteristics of the product to the customer's requirements .⁽¹²⁾

2.3.6 Definition Omar Wasfey Aghili

Is the organization's production of a good or service to a high standard of quality excellence be able from which to meet the needs and desires of their customers a way that is consistent with their expectations and to achieve satisfaction and happiness they have, and this is done through the standards laid in advance for the production of a good or service and find a recipe excellence .⁽³²⁾

It is the previous definitions that seen by the researcher, found that the definition mentioned Aghili is the closest and the broader definitions of the former.

2.4 The following are definitions of quality as provided by the International Organization for Standardization(ISO):⁽¹³⁾

- Quality is defined: as the overall characteristics of a material determines its ability to meet the needs described or contained.
- know the quality policy: as the desire and headed an organization with regard to quality in the form set by the senior management official.
- Definition of quality management: is the overall activities of the administrative function that determine the quality policy, objectives and responsibilities and

implementation through such means as quality planning, quality control, quality assurance and quality improvement within the quality requirements.

- Definition of Quality Control: is the operational techniques and activities used to meet the quality requirements.
- Definition of Quality Assurance: all activities is drawn and the organization that runs within the quality system and annotated by the need to secure or confident enough to find someone that will deliver on all quality requirements.
- definition quality loop: are jobs that are part of the cycle of industrial and affect the quality of the product, such as inspection, marketing, service and market studies and product development, engineering, manufacturing and purchasing production

Has been popularized in recent years, use of the term TQM and take all the spreads fast in spite of it youth.

The knew Standards British Institute TQM as a management philosophy includes all activities of the organization of which is to achieve the needs and expectations of the client and the community and achieve the goals of the organization as well as the most efficient and least costly way through the optimal use of the potential of all employees are motivated by continuous development and can therefore be considered to total quality management as a cultural revolution because of the way you think and operate the administration with regard to work constantly to improve the quality and focus on the work of the team and encourage the participation of an individual to establish objectives and make decisions. ⁽¹⁴⁾

Can be defined as total quality management on the basis of the words that make up the term as follows:

Management: planning, organizing, directing and controlling all activities related to quality management, also includes activities that support quality and provide the necessary resources.

Overall: it requires the participation and integration of all staff of the organization, and therefore should be made effective coordination among employees to solve quality problems and to make continuous improvements. ⁽¹⁶⁾

And thus can be considered to total quality management as a cultural revolution, and because of the way you think and operate the administration with regard to work on continuous improvement and focus on the work of the team, and encourage the participation of employees to establish objectives and Take decisions. ⁽¹⁶⁾

As for the benefits that could accrue to organizations from the application of total quality management are multiple and most important : ⁽³²⁾

1. Improve the competitive position of the organization in the market and higher rates of profitability .
2. Strengthening relations with suppliers .
3. Raise the degree of customer satisfaction .
4. Improve the quality of products manufactured or services rendered .
5. Reduced labor costs as a result of the absence of errors and reduce rates damaged .
6. Opening new markets and strengthen existing markets .
7. Doing business properly from the first time .
8. Increase the rate of speed of response to changes within the organization .
9. Train capacity through training .
10. Stimulating factor and sense of his self involvement in setting goals and making decisions.

2.5 The importance of quality

Assume the quality of strategic importance, both at the corporate level or at the level of society, and took this important and growing since the fifties In 1950 told Japan that quality is the objective of the foundation to build the economy and increase productivity and excellence in the market and thus get the competitive position that aspired to global markets, which have achieved so superiority, during the phase of the

seventies overtook Japan prominently in the field of quality on the United States, and can be a statement in the importance of quality industrial organizations through its impact in the following: ⁽¹⁹⁾

1. The company famous.
2. Liability on the product.
3. International applications.
4. Costs and market share.

There are side effects from poor quality in the organization, including:

1. Loss of work .
2. Responsibility for possible errors .
3. Productivity .
4. Costs.

2.6 Quality System requirements success

There are a set of requirements that increase in the case of interaction required to be provided between those components, which leads eventually to ensure the success of quality, and these supplies are: ⁽³⁰⁾

1. The integration of screening procedures.
2. Testing and maintenance.
3. Training and education.
4. The commitment of senior management.
5. Participation of workers and the authority delegated to them.
6. Site quality in the organization's strategy.

7. Quality control problems and methods of detection.

2.7 Management Aspects of Quality Improvement

System that is focused on quality improvement. The management system of an organization must be organized to properly direct the overall quality improvement philosophy and ensure its deployment in all aspects of the business. The effective management of quality involves successful execution of three activities: quality planning, quality assurance, and quality control and improvement.

Quality planning is a strategic activity, and it is just as vital to an organization's long term business success as the product development plan, the financial plan, the marketing plan, and plans for the utilization of human resources. Without a strategic quality plan, an enormous amount of time, money, and effort will be wasted by the organization dealing with faulty designs, manufacturing defects, field failures, and customer complaints. Quality planning involves identifying customers, both external and those that operate internal to the business, and identifying their needs [this is sometimes called listening to the voice of the customer (VOC)]. Then products or services that meet or exceed customer expectations must be developed. .

Quality assurance is the set of activities that ensures the quality levels of products and services are properly maintained and that supplier and customer quality issues are properly resolved. Documentation of the quality system is an important component. Quality system

documentation involves four components: policy, procedures, work instructions and specifications, and records. Policy generally deals with what is to be done and why, while procedures focus on the methods and personnel that will implement policy. Work instructions and Specifications are usually product-, department-, tool-, or machine-oriented. Records are a way of documenting the policies, procedures, and work instructions that have been followed.

Records are also used to track specific units or batches of product, so that it can be determined exactly how they were produced. Records are often vital in providing data for dealing with customer complaints, corrective actions, and, if necessary, product recalls. Development, maintenance, and control of documentation are important quality assurance functions. One example of document control is ensuring that specifications and work instructions developed for operating personnel reflect the latest design and engineering changes.

Quality control and improvement involve the set of activities used to ensure that the products and services meet requirements and are improved on a continuous basis. Since variability is often a major source of poor quality, statistical techniques, including SPC and designed experiments, are the major tools of quality control and improvement. Quality improvement is often done on a project-by-project basis and involves teams led by personnel with specialized knowledge of statistical methods and experience in applying them. [5]

2.8 ISO (International Organization for Standards)

ISO is an International Organization for Standards that was formed by technical committees.

They provide user-friendly guidelines for a wide range of organizations. Examples of these organizations include manufacturing, processing, servicing, printing, forestry, and electronics

(www.connect.ab.ca/~praxiom/into.htm). ISO was established in 1947, in Switzerland, with the purpose of developing intellectual, scientific, technological, and economic cooperation between member countries (Bureau of Business Practice). Later in 1979 the ISO Technical Committee (ISO/TC 176) was formed to make a set of guidelines that would bring together and standardize world industries. ISO has affiliates in more than 90 countries. It is interesting to note that ISO comes from the Greek word "isos" which means "same as." The words "same as" can be implied to mean the consumer gets what the consumer expects. In our quality assurance class we have learned that if the consumer gets what they expect, this is consider quality. Therefore, the root word ISO stands for quality.⁽¹⁶⁾

2.9 What is ISO 9000?

ISO 9000 is a set of five International Standards for Quality Assurance.

- ISO 9000 contains guidelines for the other four standards.
- ISO 9001 is intended for suppliers who do a lot of design or customization.
- ISO 9002 involves standards for both production and installation.
- ISO 9003 is guidelines for final test and inspection.
- ISO 9004 is designed to help managers develop a substantial quality system

(Bureau of Business Practice)

The ISO 9000 standards are not rules, but merely a set of guidelines that organize their processes and make it more cost effective (www.isoeasy.org.)⁽⁸⁾

2.10 Quality Management System

Includes a set of quality management system requirements include the following: ⁽²⁰⁾

1. General requirements: the organization must set processes necessary for quality management system and its application in all parts of the organization and then determine the sequence of these operations, in addition to setting standards and measuring and monitoring of those operations and then take the necessary measures to achieve the planned results.

2. Documentation requirements: should include quality management system following things: -

- Announcement documented quality policy and objectives.
- Quality Manual.
- Documented procedures.
- Records required.

2.11 THE EIGHT QUALITY MANAGEMENT PRINCIPLES

Principle 1: Customer focus

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

Key benefits:

Increased revenue and market share obtained through flexible and fast responses to market

opportunities. Increased effectiveness in the use of the organization's resources to enhance customer satisfaction. Improved customer loyalty leading to repeat business.

Applying the principle of customer focus typically leads to:

- Researching and understanding customer needs and expectations.
- Ensuring that the objectives of the organization are linked to customer needs and expectations.
- Communicating customer needs and expectations throughout the organization.
- Measuring customer satisfaction and acting on the results. Systematically managing customer relationships.
- Ensuring a balanced approach between satisfying customers and other interested parties (such as owners, employees, suppliers, financiers, local communities and society as a whole).

Principle 2: Leadership

Leaders establish unity of purpose and direction of the organization. They should create and maintain the internal environment in which people can become fully involved in achieving the organization's objectives.

Key benefits:

- People will understand and be motivated towards the organization's goals and objectives.
- Activities are evaluated, aligned and implemented in a unified way.
- Miscommunication between levels of an organization will be minimized

Applying the principle of leadership typically leads to:

- Considering the needs of all interested parties including customers, owners, employees, suppliers, financiers, local communities and society as a whole.
- Establishing a clear vision of the organization's future.
- Setting challenging goals and targets.
- Creating and sustaining shared values, fairness and ethical role models at all levels of the organization. Establishing trust and eliminating fear.
- Providing people with the required resources, training and freedom to act with responsibility and accountability.
- Inspiring, encouraging and recognizing people's contributions.

Principle 3: Involvement of people

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

Key benefits:

Motivated, committed and involved people within the organization.

- Innovation and creativity in furthering the organization's objectives.
- People being accountable for their own performance.
- People eager to participate in and contribute to continual improvement.

Applying the principle of involvement of people typically leads to:

- People understanding the importance of their contribution and role in the organization.
- People identifying constraints to their performance.
- People accepting ownership of problems and their responsibility for solving them.
- People evaluating their performance against their personal goals and objectives.
- People actively seeking opportunities to enhance their competence, knowledge and experience.
- People freely sharing knowledge and experience.
- People openly discussing problems and issues.

▪ **Principle 4: Process approach**

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

Key benefits:

- Lower costs and shorter cycle times through effective use of resources.
- Improved, consistent and predictable results.
- Focused and prioritized improvement opportunities.

Applying the principle of process approach typically leads to:

- Systematically defining the activities necessary to obtain a desired result.
- Establishing clear responsibility and accountability for managing key activities.
- Analyzing and measuring of the capability of key activities.

- Identifying the interfaces of key activities within and between the functions of the organization.
- Focusing on the factors such as resources, methods, and materials that will improve key activities of the organization.
- Evaluating risks, consequences and impacts of activities on customers, suppliers and other interested parties.

Principle 5: System approach to management

Identifying, understanding and managing interrelated processes as a system contributes to the organization's effectiveness and efficiency in achieving its objectives.

Key benefits:

- Integration and alignment of the processes that will best achieve the desired results.
- Ability to focus effort on the key processes.
- Providing confidence to interested parties as to the consistency, effectiveness and efficiency of the organization.

Applying the principle of system approach to management typically leads to:

- Structuring a system to achieve the organization's objectives in the most effective and efficient way.
- Understanding the interdependencies between the processes of the system.
- Structured approaches that harmonize and integrate processes.
- Providing a better understanding of the roles and responsibilities necessary for achieving common objectives and thereby reducing cross-functional barriers.
- Understanding organizational capabilities and establishing resource constraints prior to action.
- Targeting and defining how specific activities within a system should operate.
- Continually improving the system through measurement and evaluation.

Principle 6: Continual improvement

Continual improvement of the organization's overall performance should be a permanent objective of the organization.

Key benefits:

- Performance advantage through improved organizational capabilities.
- Alignment of improvement activities at all levels to an organization's strategic intent.
- Flexibility to react quickly to opportunities.

Applying the principle of continual improvement typically leads to:

- Employing a consistent organization-wide approach to continual improvement of the organization's performance.
- Providing people with training in the methods and tools of continual improvement.
- Making continual improvement of products, processes and systems an objective for every individual in the organization.
- Establishing goals to guide, and measures to track, continual improvement.
- Recognizing and acknowledging improvements.

Principle 7: Factual approach to decision making

Effective decisions are based on the analysis of data and information

Key benefits:

- Informed decisions.
- An increased ability to demonstrate the effectiveness of past decisions through reference to factual records.
- Increased ability to review, challenge and change opinions and decisions.

Applying the principle of factual approach to decision making typically leads to:

- Ensuring that data and information are sufficiently accurate and reliable.
- Making data accessible to those who need it.
- Analyzing data and information using valid methods.
- Making decisions and taking action based on factual analysis, balanced with experience and intuition.

Principle 8: Mutually beneficial supplier relationships

An organization and its suppliers are interdependent and a mutually beneficial relationship enhances the ability of both to create value

Key benefits:

- Increased ability to create value for both parties.
- Flexibility and speed of joint responses to changing market or customer needs and expectations.
- Optimization of costs and resources.

Applying the principles of mutually beneficial supplier relationships typically leads to:

- Establishing relationships that balance short-term gains with long-term considerations.
- Pooling of expertise and resources with partners.
- Identifying and selecting key suppliers.
- Clear and open communication.
- Sharing information and future plans.
- Establishing joint development and improvement activities.
- Inspiring, encouraging and recognizing improvements and achievements by suppliers.

This research has been based on field study to some private sector Libyan factories in order to know their abilities to follow up the recent development in the field of quality insurance . This follow up will lead to increase their ability in competition which will insure their success. ^{(11) (14)}

2.12 Quality Control

The oversight function of the basic functions in all organizations being the performance is responsible for follow-up actions are completed first, for the purpose of making sure that the results achieved are identical from the estimated results, for the purpose of addressing the deviation before it is too late and helpless, and highlights the exceptional importance of quality control in industrial organizations that because the level of quality determines the success or failure of control, that means survival or non-survival, indention include the process control inputs and outputs, through the use of samples, acceptance either in the case of the control of the manufacturing operations it is adopting control process is done by sampling a League of output of the manufacturing process for the purpose of evaluation, and that the basic tool in the control processes are plans to control the quality, if the output accepted it allows for the process manufacturing to continue, either if the output is not acceptable, this means that the process is outside the control limits, which requires doing the activity correction, and it gave Deming a pioneer movement Total Quality Management believes that the function of managers is to look for mistakes and then correct them after the end of the process and this has been confirmed by the QCs which groups gathered to discuss ways in which they can improve the quality and solving production problems. ⁽¹⁰⁾

2.13 The concept of quality control

The defined as quality control as a set of pre-defined steps, which aims to ensure the production achieved identical specifications and characteristics of the basic set of the product, and this is clear from the definition of a set of elements and basic facts to the issue of quality, namely: ⁽¹⁹⁾

1. The need to provide a pre-defined steps represent a set of necessary measures that can be used to make sure the quality of the products of these measures.
2. Goal of quality control is to ensure conformance to specifications and does not produce a high level of quality, because production levels are high quality is part of a total quality management system and is not part of the system of quality control.
3. Necessity of having precise specifications to express the level of quality.
4. The existence of a system of quality control does not mean the non-arrival of the defective items of the commodity to the consumer.
5. Interested in quality control oversight on the quality of the final product as well as attention to quality control input, and attention to the control of the production process during the stages of the operation. ^{(42) (9)}

2.14 The goals of quality control

The system of quality control aims to achieve the following objectives: ⁽²⁶⁾

1. Reducing the rate of sales returns due to the high level of quality.
2. Maintain the degree of match with the final product specifications basic manufacturing that have been established for this product.
3. Reduce the size of defective materials purchased it so as not to affect the degree of quality finished products.
4. Reduce the number of customer complaints about the low level of quality.
5. Reduce the costs of quality control and inspection of units produced.
6. Reducing the proportion of material that re-run again due to lower quality.

It is necessary to ensure the success of the regulatory system to achieve their goals that are working on an analysis of the degree of achievement of these goals, and to reconsider these goals and updated in the light of the results achieved. ⁽¹⁶⁾

2.15 Fundamental decisions in the process of quality control

There are a range of strategic decisions facing the quality management and the identification of product quality to improve the competitive position of the organization in the market as well as to define a set of specifications that you want the organization, and there is also a range of other decisions that need to be on those in charge of quality control System answered including.⁽²⁴⁾

1. What are the points in the production stage, which will be then do the test, especially the level of quality that production is usually at different stages so we will be in front of a set of alternatives:

- The examination is both raw materials and parts involved in the production process in the sense that screening is the first in production

Processes for each input.

- That is pre-screening stages of production with higher cost, or value-added bulk or bulk of the investment.
- That is pre-screening stages that are difficult to work after the repair of the defect in the case of discovery.
- That is pre-screening stages, which is usual for a high proportion of damaged.
- The examination is after the completion of all production processes after a screening of the final output.

2. What is the style of the examination to be followed, and here we are two options in front of two grounds:

- Examination of each unit that are quality control of which is known as the comprehensive examination.
- Examination of some of the units that are quality control of what is known as a style samples.

3. What action is to be made for defective units, and we will be here in front of two sets of options:

- The defective units are excluded.
- Repair units that are defective.
- Identification of reform steps to be taken to correct the production process.
- Identify the possibility of reconsidering the standards set for the quality of the fit with the real conditions of operation.
- Identify the circumstances in which it is possible to be re-considered by the standards set for quality.

4. What are the key aspects that will be measured in the product? Is it all will be measured? Either there is an important specification to be measured and usually is used for overall dimensions, such as:

- Ability to maintain and easily.
- Continuity at a certain level of quality.

5. What is the degree of the iterative process of testing and measurement? And here we are two choices:

- There is a stable production systems are inherently any can repeat the same process for inspection and measuring them.
- There are production systems are inherently unstable can not be any repetition of the same process of inspection and measuring them.

6. What are the limits of shoddy special design of the product?

Here we must determine the degree of matching of product standards and specifications have, and here we can talk about matching the full matching or relative.

7. What are the appropriate statistical plans that can be used in quality control? Here we will be in front of a range of options:

- Can be used as samples of acceptance?
- Is the style will be used to control the process?

2.16 Quality control statistically

Statistical methods can be divided in quality control into two main groups:^(10,11)

1. The style preview Admission: The selection of this technique on a sample of the cargo to be examined. After examining the sample is accepted or rejected based on the results of the cargo screening sample, usually the style here is commonly used to measure the properties by selecting the important characteristic of the product and make sure of the possibility of the product this property or his inability to do .

2. The style control over the process: This method relies on the examination of samples of the output during the actual operation of the production process and therefore can be judged on the degree of discipline of the production process based on the results of examination of the sample, so the habit is common here to use the style of the measurement variables through actual measurement for a Item Specification produced such as weight or length or fish ... then compare the result of the measurement limits allowed to judge the quality of the product. we will start by giving a brief presentation of the method of sampling by talking about the style of the sample and the one method of Successive samples.

- Preview admission:

The preview of the acceptance of the oldest statistical methods used to control the quality and the idea that they are based off of the withdrawal of a relatively small sample of the batch products or materials for examination and decision on acceptance or rejection of shipments of inputs that will be used in production (such as raw materials) that are bought from abroad. Also used in judging the quality of the output, which represents the (final products), which is a form of testing applied to meals or shipments of materials or products, and the purpose of which is to determine the extent of honoring the criteria specified in advance when they fulfill the criteria, it would be acceptable and when they do not meet the criteria rejects. The preview of acceptance as a method of statistical important in quality control differs from the control of the process, as the

preview of acceptance are made before production or reject the materials involved and after production to accept or reject boost productivity while the control process is done during production and the main purpose is to ensure that the process of manufacturing are in accordance with the criteria specified in advance through sampling and periodically during the stages of production and through this technique is to make sure that the output generated will be accepted. The preview of acceptance depends on the sampling plan that determines the size of the batch production and the number of sample units which are in accordance with the standards specified in advance to be a meal or shipment are all acceptable, and in the case of failure to achieve specifications refuses usually prefer to use this style of samples in the following cases:

1. Whether the size of the meal is very large, and the examination should be conducted in a short time for the purpose of receiving and delivery are resorting to the style of the samples.
2. When the results of the cost of the passage of the damaged units are low.
3. In cases where the test completely destroyed the sample tested as in the test meals or food in weapons tests.
4. When moving the product for the purpose of examination to the occurrence of defects in it.
5. Leads when fatigue and boredom caused by screening large numbers of materials or products to the mistakes of the examination.

- Sampling plan

The sampling plan specifies the sample size and the proportion of damaged units permitted any standard of acceptance or rejection in industrial applications, there are three types of plans, a preview:

1. Preview individual plan:

In this style pull a random sample of specific large quantities of production then we check the units of the sample.

2. Style double sample:

The philosophy of this technique on the basis of start racing to withdraw a small sample is in the light of the acceptance or rejection of the batch production.

3. Multiple sampling plans:

It is taking multiple samples and small from those used double until access to the case of rejection or acceptance of the batch. Indeed, the plan preview multi be stressful in the design, implementation and understanding, so it is less commonly used in industrial applications for the remaining plan preview individual are the most commonly used.

2.17 The results of previous research

1- The literature, which has been in quality management in detail , almost be numbered in the Arab world in general , and some of the research is not the reality of the experience, expertise and practice of quality management,

and know the strengths and weaknesses in companies and documented in a scientific way will benefit in the future to avoid fall into the same errors when applying quality management in other companies .

2-Abdel Aziz Abdelaal Zaki, Quality management and its role in development of the companies presented to obtain a doctorate degree in Business Administration,(May 2010).

during the study After all above , it confirmed to us the importance of applying the principles of quality at all levels in all organizations, industrial or production or service, agricultural or commercial, because all organizations must have a field of administrative and financial, technical and operations, which need the coordinate of quality management to link all of them, which ultimately leads to more quality in product or service or both, and it is clear that the application of quality management will be a source effective instrument of "strong" to reach the

excellence in work and this will be achieved only by the efforts of all employees of each organization, and there flow the applications and requirements of standards of quality systems. Finally, it is clear now that the application of quality and achieve a culture of quality in organizations requires patience and follow up and determined to move forward on the road pursued by the organization's leaders, especially now that the importance and benefits of the application of quality management are clear and easy to use .Although there are obstacles or faulty, it is mostly due to the method of application not to the principles and the concept of quality, then it is necessary to study and evaluate the methods of the application from time to time and make changes and improvements that necessary to ensure that it fit to the organization , and found improvements results success in achieving the objectives. ⁽¹⁾

3- Study of Chong, Rundus (2004):Total Quality Management, Market Competition and Organizational Performance .

This study examines the interactive effects of total quality management (TQM) practices, and intensity of market competition on organizational performance. The responses to a questionnaire survey of 89 production and operation managers, drawn from a cross-section of Australia manufacturing companies, were analyzed using a multiple regression technique. The results show that the higher the degree of market competition, the more positive the relationship between the TQM practices of customer focus and organizational performance is. In addition, the results also confirm that the higher the degree of market competition, the more positive the relationship between TQM practices of product design and organizational performance. ⁽²⁾

4- Study of Smadi, Al-Khawaldeh (2006): The Adoption of Total Quality Management (TQM) in Dubai Manufacturing Firms.

With the increasing competition in today's business environment, firms are keen to seek every opportunity to improve their business results. TQM has been a widely applied process for improving competitiveness around the world. Many organizations claim to "have TQM". This study attempted to develop a generic framework that can be used by the management and industrial practitioners to self-assess TQM implementation and initiatives in their firms, and also, to self-assess and the extent to which firms indeed "have TQM". Such a framework can be effectively used by management to obtain a better understanding of their efforts toward TQM implementation, and to spot areas that must be targeted by managers for improvement to help the organization in its quality mission and in identifying the level of training needed. The framework incorporated, interpreted and operationalized the implicit concepts of TQM as proposed by TQM gurus, national and international quality awards and three famous studies among the vast TQM literature. The reliability and validity of the proposed framework were tested and validated using the data obtained from 126 manufacturing firms working in Dubai – United Arab Emirates (UAE). The results indicated that manufacturing firms in Dubai moderately adopt the constructs of TQM and there are no significant differences in TQM implementation among these firms according to their characteristics. The study showed clear patterns where firms stress certain TQM practices as; flexible manufacturing, employee empowerment and leadership, but they ignore other Practices like customer focus and benchmarking. The importance of behavioral practices that are not implemented was highlighted in order to be taken as a serious signal by management.⁽¹³⁾

5- Study of Prajogo, Brown (2004) The relationship between TQM practices and quality performance and the role of formal TQM programs: An Australian empirical study.

The purpose of this research was to test and analyze the effect of TQM practices implementation which consists of leadership, strategic planning, customer focus, information

and analysis, people management, and process management to product quality performance. The population were 108 food and beverage companies in Makassar, Indonesia. Respondents are production managers or operation managers. Sample technique which used is population sampling. Method of analysis which use both descriptive statistic and Structural Equation Modelling (SEM). Data processing uses two statistic tools i.e: IBM SPSS and AMOS 19.00.

The findings of research indicate that leadership has significant effect on product quality performance, strategic planning has significant effect on product quality performance, customer focus has significant effect on product quality performance, information and analysis has significant effect on product quality performance, people management has significant effect on product quality performance, and process management has significant effect on product quality performance. Leadership factor has dominant effect on product quality performance.⁽³⁾

6_ Rajab Hokoma, Mohammed Khan, Khaled Hussain (2007). Investigation into the implementation stages of manufacturing and quality techniques and philosophies within the Libyan cement industry.

The purpose of this paper is to investigate the implementation level of just-in-time(JIT), Manufacturing resources planning and total quality management within the cement industry in Libya.

The cement production field is considered to be a high level competitive industry because of its strong relations to gross domestic product growth for many countries. Libya has paid strong attention to this industry as all the raw materials required to produce the cement are locally available. The importance of the cement in the construction sector as well as for the infrastructure buildings is paramount and Extensively used in most of the major civil engineering project. This makes the cement industry an extremely important manufacturing entity requiring further development And better organization.

The cement manufacturing in Libya is the sole domain of two main firms, producing about 10 million tons of cement annually from six plants.

One the basis of the survey showing that the implementation level of JIT and MRPII practices within the cement industry in Libya is still modest for JIT and non-existent for MRPII. On the other hand, the implementation level of the TQM practices was at a higher level, but in fact this high level does not make much impact unless these organizations also work towards a full.