

# The New Quality Trilogy: Basic Understanding & Concepts

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## Abstract

Quality have a significant impact towards our daily life. It is a key element in fulfilling our desirable requirements and expectations. These requirements & expectations are also known as the voice of customer. Organisation would use the voice of customer as an input to provide quality products or services to their respective customer. In order to fulfil the voice of customer, organisation need to implement good quality in their respective unit. The New Quality Trilogy is a new method of understand quality. By introducing it to the unit, organisation may achieve the quality target that are important to its core function. The New Quality Trilogy comprises of three stages; Quality Concept & Philosophies, Quality Improvement Tools & Methods and Quality Systems & Standards. Each stages would support each other and it is important for the organisation to undergo each stages properly to obtain the maximum results in achieving higher quality performance.

**Keywords:** *Quality management; Quality control; New trilogy.*

## 1. INTRODUCTION

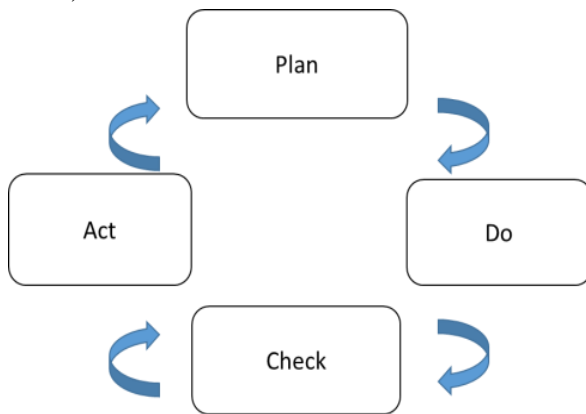
Quality is a word that can be defined as meeting the customer requirements & expectation (Kresimer et. al., 2012). By providing a high quality product or services an organisation can fulfil their customer wants and needs, thus gaining higher confidence level in the market (Robert & Walter, 2010). These statement are the fundamental that can describe the essence of quality management (Rashid et. al., 2015).

## 2. LITERATURE REVIEW

Since the beginning, Quality Gurus had emphasis on the importance of understanding the customer (Tony et. al., 1995). They had introduced a lot of philosophies and techniques in order to achieve high customer satisfaction (Louis, 2015). Deming for example, had introduced the Deming Cycle, The Deming 14 Points and the Seven Deadly Diseases. The Deming Cycle or also known as the PDCA Cycle consist of four different

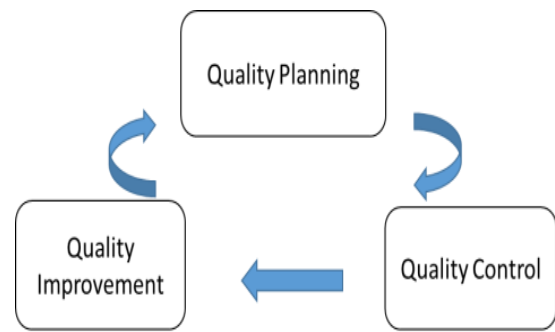
stages in quality management (Abhijit, 2016). Starting with the Planning stage, then continued by Do and followed by Check and ended with Act. The Deming cycle is a magnificent methods to be used in introducing quality in an organisation (Pratik & Vivek, 2017).

Deming also introduces The Deming 14 Point that can be explain as one of the core concept in Total Quality Management plus the Seven Deadly Diseases that may effects the performance of quality in any organisation (Bhimaraya, 2006) (Francis, 2012).



**Figure 1. The Deming Cycle**

Then comes Juran with the Juran’s Trilogy and Juran’s 10 Points (Juran, 1998) (Khor & Azlan, 2012). The Juran’s trilogy is a concept that shows the importance of quality planning in reducing the cost of poor quality (Godfrey & Kenett, 2007) The trilogy comprises of three elements; Quality Planning, Quality Control and Quality Improvement (Glykas et. al., 2015). These the elements must co-exist and support each other’s in order to increase the level of quality in an organisation (Humberto et. al. 2012). The trilogy is also supported by the Juran’s 10 Points (Abhijit, 2016). The points are a step by step methods that can be used to achieve quality improvement (Zairi, 2013).



**Figure 2. Juran’s Trilogy**

Another famous quality guru is Crosby. He introduce the concept of cost of quality where he stated that quality is a cost for organisation but the cost would be much higher for organisations that neglect quality (Mohammed & Ahmed, 2012). Crosby also expresses his basic theory about quality by introducing The Four Absolutes of Quality Management (Daniel, 1999) He also introduced the Crosby’s 14 Steps for Quality Improvement, a tool similar to Juran’s 14 points that can be used to improve the performance of quality in any organisation (Farooq, 2007) (Luis & Willem, 2009).

### 3. METHODOLOGY

By using the inverted pyramid literature method, the research were able to identify and narrow down the related new key features that are essential to the New Quality Trilogy, a significant amount of research articles were selected and analyze in order to obtain the relevant criteria in the process of developing the new trilogy. The selection of the research articles are based on their respective findings and relevancy towards the elements in the quality field.

## **4. RESULTS AND FINDING**

### **4.1 STAGES IN THE NEW TRILOGY**

#### **4.1.1 Quality Concepts & Philosophies**

This is the most important stage in the new trilogy. Organisation must emphasis on the total understanding of quality from each unit. By teaching the unit the basic concepts that had been defined by Deming, Juran and Crosby organisation would be able built a strong quality pillars in the respective unit.

The basic concepts of quality that been taught can also be broaden to other quality gurus such as Ishikawa, Feigenbaum and others. It is also crucial for the organisation to overcome the mental barrier that quality is hard, wasting time and a big burden to the units. By overcoming these barriers it is easier for the organisation to move to the next stage which is Quality Improvement Tools & Methods.

#### **4.1.2 Quality Improvement Tools & Methods**

The second stage rely on the understanding of the unit towards the relevant quality improvement tools & methods. The tools & methods can be as common but powerful like the Seven Quality Control Tools or the Seven New Quality Control Tools or the more advance methods such as the Statistical Quality Control or Lean Six Sigma.

The organisation may also use other quality improvement tools such as the 5S, Quality Function Deployment, SERVQUAL, Failure Mode Effect Analysis and others. If the unit managed to grasp full understanding of the tools & methods then it is possible for the organisation to undergo brilliant quality transformation.

#### **4.1.3 Quality System & Standards**

After completing the quality improvement tools & methods stage, organisation should opt for verifying the results. It commonly for them to go for certification such as the ISO Standards Certification. The verification stage is very important in order for the organisation to really understand and verify their improvement results.

By doing the certifications organisation can also obtain and find room for future improvement that they may not see in the second stage. Another benefit of getting the certification is the increasing public image for the organisation. In the eye of the pubic certifications is a proof that the organisation is in a high quality operation.

### **4.2 KEY ELEMENTS IN EACH STAGES**

There are several key elements that need to be dealt by the organisation if they wish to fully grasp the potential of this new trilogy. All the key elements must be in line and well execute before they can proceed to the next stage. The key elements can be defined as a guidelines for the respective companies in their journey to implement the new trilogy.

#### **4.2.1 Key Elements in Quality Concept & Philosophies**

In the first stage, there are 10 key elements that the organisation need to follow. The elements are:

1. Identify the target for the quality improvement program.
2. Identify the unit that involved in the quality improvement process.
3. Identify the personnel that is relevant to each unit.
4. Evaluate their current understanding and motivation for quality.

5. Determine the gap between the quality target and current quality understanding.
6. Provide relevant quality concept & philosophies training and courses that would increase the understanding and motivation of the personnel and unit towards quality.
7. Re-evaluate the personnel and unit level of understanding and motivation towards quality.
8. If the understanding and motivation are up to the target then the process may be proceed to the second stage.
9. If not then organisation must conduct more training and courses until the results achieve the target.
10. Proceed to the next stages only if the personnel or unit had fully understand the concept and philosophies of quality.

#### **4.2.2 Key Elements in Quality Improvement Tools & Methods**

For the second stage, there are 10 key elements that the organisation need to follow. The elements are:

1. Identify the target for the quality improvement program.
2. Identify the relevant quality improvement tools & methods.
3. Conduct training and courses to teach the personnel and unit on how to do the tools and methods.
4. Evaluate the personnel and unit understanding and capabilities to run the tools & methods.
5. If the understanding and capabilities are in place, the personnel and unit may proceed to run the tools and methods in their respective boundaries.

6. If the understanding and capabilities are not in place, the organisation should retrain the personnel and unit until they are up to the standard.
7. Obtain the results of the quality improvement tools & methods analysis.
8. Conduct the necessary improvement based on the result analysis.
9. Monitor the changes of quality after conducting the improvement process.
10. Proceed to the next stage only if the improvement process has shown significant changes in the quality of the performance of the organisation.

#### **4.2.3 Key Elements in Quality System & Standards**

Finally for the third stage, there are also 10 key elements that the organisation need to follow. The elements are:

1. Identify the target for the quality improvement program.
2. Compare the target with the latest results from the quality improvement program.
3. Identify the standards that are relevant with the organisation's quality target.
4. Compare the standards with the current situation in the organisation.
5. Ensure that all the necessary criteria in the standards are met
6. Apply for certification from relevant and authorized parties.
7. Go through the necessary audit process for certification.
8. If pass the certification, conduct regular monitoring to monitor the performance of the quality in order for maintaining the certification.

9. If the organisation failed to obtain the certification, then it should move back to stage two and redo the quality improvement tools & methods process.
10. It is crucial for the organisation to maintain the certification that they obtain in order to prove that they had done the necessary quality improvement in their process.

### **4.3 CHALLENGES WHEN IMPLEMENTING THE NEW STRATEGY**

It is crucial for the organisation to understand that to implement the new strategy, they must face a lot of challenges. To overcome the challenges organisation must put a lot of effort, energy and resources. In all the three stages, challenges would arise and the organisation must be ready to overcome it.

#### **4.3.1 Challenges in Quality Concepts & Philosophies**

In the first stage, there are five challenges that the organisation need to overcome. The challenges are:

1. No understanding of quality. Usually organisation have to face this situation when dealing with new personnel that does not have prior experience of working or doing the process.
2. Lack of motivation. Organisation would face this situation normally when the personnel in the unit are in their comfort zone and does not willing to change the process.
3. Fear of quality. Normally personnel would say that quality is a burden for them. To them, to improve quality

- they must do more task and a lot of paper work.
4. No desire to change. Again this challenge involving the staff that are so comfortable in their comfort zone. Any changes would affect the status quo and they rather stay in their comfort zone then change for the better.
  5. Cost. To some organisation quality is cost especially when conducting training and courses. The question would be is the amount spent for the training and courses are worth it.

#### **4.3.2 Challenges in Quality Improvement Tools & Methods**

In the second stage, there are five challenges that the organisation need to overcome. The challenges are:

1. Lack of knowledge. It is crucial for every personnel in the unit to understand the concepts of running the quality tools & methods in order for the improvement process to become success.
2. Different understanding. Different personnel in the unit may have different understanding of running the quality tools and methods. It is a must for the organisation to align all the personnel understanding. Only one standard of understanding should be implemented in the unit.
3. Time. In order to run the quality improvement tools & methods analysis, time allocated is crucial. To some organisation it is hard to allocate time for quality activities since at the same time the personnel also need to focus on their day to day job task.

4. Cost. Cost does affect the outcome of this stage. The success of implementing the quality improvement tools & methods does rely on the amount of funding that are allocated by the organisation.
5. Significant changes. Are the improvement enough or is this the maximum capabilities for changes in the unit. These are the question that usually comes to mind of the top management of the organisation. Noted that some changes may relatively small but small changes may lead to great results in the future.

#### **4.3.3 Challenges in Quality Systems & Standards**

In the third stage, there are also five challenges that the organisation need to overcome. The challenges are:

1. Fear of standard. In the mind of personnel systems & standard means tedious work and extra burden. No flexibility in doing job. This is contradicting the real intention of standards that actually may reduce the amount of work for redoing jobs.
2. Fear of audit. Again, in the mind of personnel the purpose of audit is to find mistakes and they will be punished for the mistakes. This taught is wrong. As the purpose of audit is to find rooms for improvement.
3. Transparency. For audit purpose, organisation must provide all the necessary document and proof. While some organisation are willing to share their documents with the auditor, there are organisations that will hide some of the information in order to cover up their weaknesses.

4. Time. Organisation have to allocate sufficient amount of time for the audit process. To some organisation, this will affect their day to day process. The personnel also have to spend some time to addresses the nonconformities that arises from the audit process.
5. Cost. Again cost is a big issues in some organisations. The question would be; is the amount of money spent for certification is worth the benefit would be obtained by the organisation.

#### **5. CONCLUSION**

The New Quality Trilogy is a concept that emphasis on the three major stage in quality improvement; Quality Concept & Philosophies, Quality Improvement Tools & Methods and Quality Systems & Standards. It main purpose is to become a guidelines for organisation to conduct their quality improvement program. The first stage consist of 10 key elements and 5 challenges, stage two with 10 key elements and 5 challenges while stage three also with 10 key elements and 5 challenges. By following and doing all the key elements and also overcome all the challenges, organisation can increase their level of quality thus fulfilling the ultimate goals of meeting the customer requirements & expectations.

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