



QR VIEWS

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FOR PRIVATE CIRCULATION AMONG MEMBERS ONLY

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“Quality begins with the intent, which is fixed by Management”

Dr. W. Edwards Deming

in recent times has brought a sea change both in concepts and perceptions of quality. There is a far greater awareness of Quality and commitment to Quality by Designers, Manufacturers, Service Providers and also by Customers. Quality has been recognized as the mantra for survival in the highly competitive environment. Our Branch is putting sincere effort in spreading the Quality mantra in this part of the Region.

C. Athi Pagavan

1.0 Chairman's Message

Technology in the field of Quality continues its march forward in spite of the economic setback all over the world due to the pandemic for the past three years. In the current situation Small kindness, Small courtesies and Small considerations which are habitually practiced in our social interactions give a greater charm to our character than the display of great talents and accomplishments. This is also one way of practicing Kaizen in Character building. Out of the factors influencing Quality, the 4 Ms viz., Men, Materials, Machines and Methods of the famous Ishikawa Fish Bone diagram except Men all other factors can be brought under management control. However, the most influencing factor is Men. The success of the various philosophies and techniques to be employed in the journey towards excellence on the factor “Team Work”. Team work is an Ethnic culture and is an important factor for the success of any organization. The technological explosion



2.0 NIQR Fellow Membership



Senior Vice Chairman of NIQR Trivandrum branch, Shri. K.R. Mohan Ananthanarayanan was conferred with Fellow Membership for his outstanding contribution in the field of quality by NIQR National Body on **28 February 2023**. He has contributed for the quality assurance of launch vehicle for more than three decades and he is also an active member in NIQR Trivandrum Branch in various positions.

NIQR Trivandrum Branch congratulates Shri KR Mohan Ananthanarayanan on this achievement.

Shri.K.R.Mohan Ananthanarayanan receiving the Fellow membership on 28 February 2023 in Chennai.



3.0 Technical Talk

The former Project Director LVM3, Shri. V.T. Baskar gave a technical talk on his three decade journey in the field of quality. He was heading the LVM3 M2/Oneweb mission, which was the first commercial mission of LVM3 vehicle. The LVM3 is capable of carrying heaviest payload from Indian soil. The program was conceived and executed in short period of time with flawless performance. He shared his experience in the chronological order from the date of joining in VSSC to Project Director of LVM3 vehicle. He narrated different incidents he came across as a quality engineer. He also explained how his counterparts of developing agencies and testing team had given due respect for quality teams and for their views.

Shri.V.T. Baskar after serving more than two decades in quality department moved to project and worked in various position such as Associative Project Director and project director. He also highlighted the importance of addressing quality concern in real time that helped to execute the projects in flawless manner.

Shri. K. Rajagopal his first Division head also joined during the technical talk and shared his nostalgic memories in those days. The talk was enjoyed by audience the way it was narrated as a quality story by Shri. V.T. Baskar.

Senior NIQR member Shri. Jeyakumar was felicitated after the talk for his excellent contribution in the field of quality and reliability. Shri. Jeyakumar shared his experience and gave a motivating talk which was well appreciated by members.



Memento presented to Shri. V.T. Baskar by NIQR Trivandrum Branch Chairman Shri. C. Athi Pagavan



Ponnada presented to senior NIQR member Shri. Jeyakumar by Shri K. Rajagopal.

4.0 Cost of Quality

The cost of quality is the total cost incurred by an organization to ensure that its products or services meet the required quality standards. This cost can be divided into two categories cost of conformance and cost of non-conformance.

4.1 Cost of Conformance:

It refers to the cost associated with ensuring that products or services meet the required standards. This includes the cost of quality planning, quality control, quality assurance, Employee training and development, Quality control measures, Inspection and testing, Process improvement initiatives and Quality audits. Quality planning involves defining the standards that must be met and developing a plan to meet those standards. Quality control involves monitoring the production process to ensure that the products or services meet the defined standards. Quality assurance involves auditing the production process to ensure that it is operating in accordance with the defined standards.



On the other sense cost of quality into two categories: prevention costs and appraisal costs.

4.1.1 Prevention Costs: Prevention costs are the costs incurred to prevent defects or errors from occurring in the first place. These costs include training, process improvement, equipment maintenance, and quality planning. Prevention costs are essential because they help to avoid the cost of defects, which can be much higher than the cost of prevention.

4.1.2 Appraisal Costs: Appraisal costs are the costs incurred to identify defects or errors in a product or service. These costs include inspections, testing, and audits. The purpose of appraisal costs is to identify defects early in the process to prevent them from reaching the customer. While appraisal costs can be high, they are necessary to ensure that defects are caught before they cause harm to customers.

4.2 Cost of Non-conformance:

It refers to the cost associated with failing to meet the required standards. This includes the cost of rework, scrap and warranty claims. Handling customer complaints and returns, Lost sales due to quality issues, Damage to the organization's reputation. Rework involves correcting defects in products or services that were not detected during the production process. Scrap involves discarding defective products or services that cannot be corrected. Warranty claims involve repairing or replacing defective products or services that were sold to customers. Cost of Non-conformance divided into two categories.

4.2.1 Internal Failure Costs: Internal failure costs are the costs incurred when a defect or error is detected before the product or service is delivered to the customer. These costs include rework, scrap and downtime. Internal failure costs are often high because they involve additional work to correct the defect, which can delay delivery and increase costs.

4.2.2 External Failure Costs: External failure costs are the costs incurred when a defect or error is detected after the product or service is delivered to the customer. These costs include warranty claims, customer complaints and loss of reputation. External failure costs can be much higher than internal failure costs because they can damage the company's reputation and lead to a loss of business.

4.3 Relevance of Cost of Quality

Both the cost of conformance and the cost of non-conformance have an impact on the overall cost of quality. The cost of conformance represents an investment in quality that can result in lower costs in the long run. By investing in quality planning, quality control and quality assurance, organizations can reduce the likelihood of defects in products or services, which can result in lower costs associated with rework, scrap and warranty claims.

On the other hand, the cost of non-conformance represents a cost that can be avoided by investing in quality. By failing to meet the required standards, organizations incur costs associated with rework, scrap and warranty claims, which can be significant. In addition to the direct costs, there may also be indirect costs associated with damage to the organization's reputation, loss of customer trust and decreased customer loyalty.

The cost of quality can be difficult to measure, as some costs may be hidden or difficult to quantify. For example, the cost of lost sales due to quality issues may be difficult to estimate, as it depends on factors such as customer loyalty and the competitiveness of the market.

The cost of quality is not just a concern for manufacturing organizations. It is also relevant for service organizations, where quality can be defined in terms of customer satisfaction. In service organizations, the cost of quality can be divided into the cost of service quality and the cost of service failure. The cost of service quality refers to the cost associated with providing high-quality service, while the cost of service failure refers to the cost associated with failing to meet customer expectations.

To effectively manage the cost of quality, businesses must focus on prevention rather than just detection. By investing in prevention costs, companies can reduce the likelihood of defects and errors, thereby reducing the need for appraisal and failure costs. This approach can also lead to improved customer satisfaction, increased productivity and higher profitability.

4.4 Why is Cost of Quality Important?

Managing the cost of quality is important for several reasons:

4.4.1 Cost savings: Effective management of the cost of quality can result in significant cost savings for an organization. By identifying and addressing quality issues early on, organizations can reduce the cost of rework and scrap, as well as the cost of handling customer complaints and returns.

4.4.2 Customer satisfaction: Quality is a critical factor in customer satisfaction. By ensuring that products and services meet the required quality standards, organizations can improve customer satisfaction and loyalty.

4.4.3 Competitive advantage: Organizations that are able to consistently produce high-quality products and services can gain a competitive advantage in the market place.

4.5 How to Manage Cost of Quality?

Effective management of the cost of quality requires a comprehensive approach that involves all levels of the organization. Some key strategies include:

4.5.1 Prevention: The most effective way to manage the cost of quality is to prevent quality issues from occurring in the first place. This can be achieved through the use of quality control measures, employee training and development and process improvement initiatives.

4.5.2 Measurement: In order to effectively manage the cost of quality, it is important to measure it. This can be done by tracking metrics such as defect rates, customer complaints and rework rates.

4.5.3 Continuous Improvement: Effective management of the cost of quality requires a commitment to continuous improvement. This involves identifying and addressing quality issues as they arise, as well as implementing process improvements to prevent them from occurring in the future.

4.5.4 Collaboration: Managing the cost of quality requires collaboration across all levels of the organization. This includes involvement from management, employees, suppliers and customers.

4.6 Conclusion

Managing the cost of quality is essential to maintain profitability and competitiveness in today's marketplace. By implementing effective quality control measures, measuring the cost of quality and committing to continuous improvement, organizations can reduce the cost of non-conformance and gain a competitive advantage. With a comprehensive approach that involves all levels of the organization, managing the cost of quality can be achieved.

P. Muthuganapathy