

The cost of quality

By Michael Pfeifer

The cost of quality equals any additional, unnecessary, unplanned, non-value-adding activity required to manipulate a performed process or product to meet or improve customer expectations and/or specified quality standards. Cost of quality means rework and repair of non-conforming parts and products or the cost of scrapping them.

The majority of companies still don't measure cost of quality. If an organization is monitoring cost of quality there are still areas not put in the account, such as back-order freight costs, production rejects, production rework, and discount for complaints .

The cost of quality typically represents and is measured as a percentage of total revenue. It impacts directly the labour and material content of total revenue and the bottom line. Labour and material content are the two biggest line items on a financial statement, both of which are negatively influenced by quality costs.

High-performing organizations show an impact of 0.5 to 1.0 percent; low-performing ones carry an 8 percent or more cost of quality rate as a percentage of total revenue.

Most companies start recognizing cost of quality as an improvement potential when times get tough, or when customer complaints are skyrocketing. Complaints are a good indicator of company performance.

To tackle cost of quality, improvement initiatives have to be introduced and executed throughout the entire organization, where company objectives, expectations, processes and procedures are in alignment with the current business model.

Traditionally, service departments are seen as a service the customer. However, when you take a closer look at it, 75 percent of the activities are directed toward fixing the company's own mistakes and errors.

To support customer service, rework and repair stations are set up and integrated as part of the manufacturing process instead of looking at the root causes. This reveals a part of the cost of quality, because companies have the impression rework is a value-adding activity because it preserves material or product.

Similarly, labour that is allocated for inspection activities are part of cost of quality, but again, it looks like as a value-adding activity. In fact, from my perspective, quality inspection throughout the process, as a additional function, is a non-value adding activity and is waste because the processes should be designed and established to achieve quality at the source by focusing on proper training, standard operating procedures, visual workplace organization, quality standards and quality audits.

Finally, the organizational behavior of shipping incomplete products, producing non-conforming parts and providing incomplete and incorrect information results in quality costs.

Competitive pressures, increased customer demands and changes in market conditions all affect quality costs. Below are the Top 10 cost of quality targets, which could be part of your continuous-improvement activities. Taking a closer look, some of these areas could be regarded as quick-fix initiatives — problem areas that can be quickly recognized, quickly changed with minimum capital and provide incredible results.

Take a look at how these Top 10 may exist in your operation, and next issue we will look at ways to improve your quality costs.

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Top 10 cost of quality targets:

1. Quality standards are not defined, established and implemented.
2. Workforce training and education are lacking.
3. Proper communication of quality standards and expectations is missing throughout the company, customers and supplier chain.
4. Packaging, shipping and transport contain hidden time and dollar costs.
5. Customer satisfaction slips following installation.
6. On-time and complete shipment performance fails.
7. Wrong processes are in place in technology and tooling.
8. Machinery, equipment and tool maintenance and change-over below standard.
9. Wrong material specification and hardware supplies get into the system.
10. Incorrect or incomplete information appears during work order preparation.

Could the beetle damage in this stool have been identified in your shop before the product was shipped?