

## QUALITY FUNCTION DEVELOPMENT PROCESS:

Phase 1: product planning

Step1: list customer requirements

Step2: List technical descriptors

Step3: Develop a relationship between WHATS AND HOWS

Step4: Develop an interrelationship matrix between HOWS

Step5: Do competitive assessments

Step6: Develop prioritized customer requirements

Step7: Develop prioritized technical descriptors.

Phase 2: part development

Step8: Deploy QFD process down to sub-components level both in terms of requirements and characteristics.

Step9: Deploy the component deployment chart. Relate the critical sub-component control characteristics.

Phase 3: process planning

Step10: Develop the relationship between the critical characteristics and process used to create the characteristics

Step11: Develop the control plan relating critical control to critical processes.

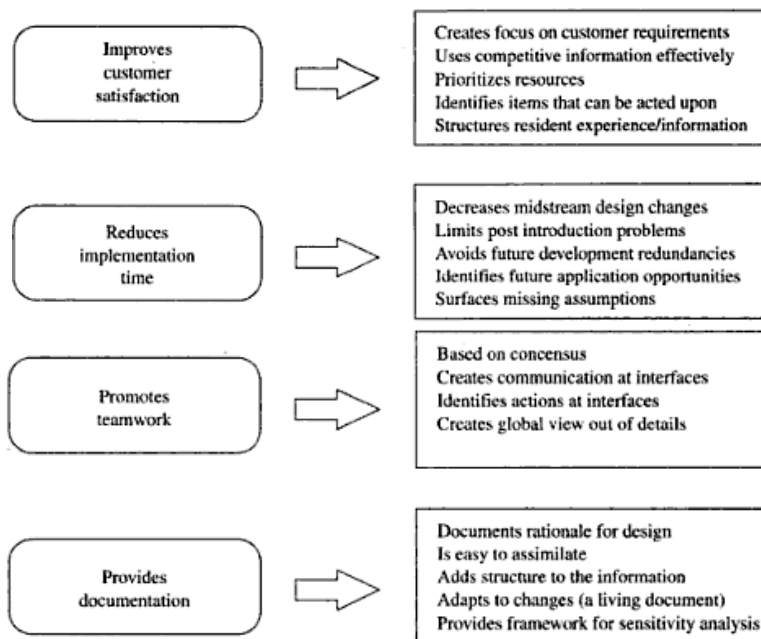
Phase 4: production planning

Step 12: Tabulate operating instructions from process requirements

Step13: develop prototype and do testing

Step14: Launch the final product to the market.

## 2. BENEFITS OF QFD:



**Benefits of QFD**

## **Improves Customer Satisfaction**

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QUALITY function deployment looks past the usual customer response and attempts to define the requirements in a set of basic needs, which are compared to all competitive information. All competitors are evaluated equally from customer and technical perspectives. This information can then be prioritized using a Pareto diagram. Management can then place resources where they will be the most beneficial in improving quality. Also, QFD takes the experience and information that are available within an organization and puts them together as a structured format that is easy to assimilate. This is important when an organization's employee leaves a particular project and a new employee is hired.

## **Reduces Implementation Time**

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Fewer engineering changes are needed when using QFD, and, when used properly, all conflicting design requirements can be identified and addressed prior to production. This results in a reduction in retooling, operator training, and changes in traditional quality control measures. By using QFD, critical items are identified and can be monitored from product inception to production. Toyota reports that the quality of their product has improved by one-third since the implementation of QFD.

## **Promotes Teamwork**

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QUALITY function deployment forces a horizontal deployment of communication channels. Inputs are required from all facets of an organization, from marketing to production to sales, thus ensuring that the voice of the customer is being heard and that each department knows what the other is doing. This activity avoids misinterpretation, opinions, and miscues. In other words, the left hand always knows what the right hand is doing. Efficiency and productivity always increase with enhanced teamwork.

## **Provides Documentation**

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A database for future design or process improvements is created. Data that are historically scattered within operations, frequently lost and often referenced out of context, are now saved in an orderly manner to serve future needs. This database also serves as a training tool for new engineers. QUALITY function deployment is also very flexible when new information is introduced or things have to be changed on the QFD matrix.

