



Quality Dimensions

PERFORMANCE

Performance refers to a product's primary operating characteristics.

FEATURES

Features refer to a product's secondary product characteristics (i.e., the "bells & whistles"). They supplement the product's basic functioning characteristic(s).

CONFORMANCE TO SPECIFICATIONS

Conformance refers to the degree to which a product's design & operating characteristics meet prior established standards. Conformance to specifications focuses attention on the internal & operating view of quality. It is the basic subject matter of statistical quality control (SQC). SQC is a body of knowledge that allows tools & measurement standards to be developed in a continuous & economical way. Objectives are to find & eliminate "assignable causes" leading to defective products prior to the realization of any actual nonconforming conditions.

RELIABILITY

Reliability refers to the likelihood of a product failure (malfunction) with a specified time period. Reliability must be "designed" into a product. If a product, as designed, is inherently unreliable, nothing can be done in the manufacturing process(es) to improve it.



DURABILITY

Durability refers to the length of life of a product. Take a light bulb, for example: After so many hours of use, the filament burns up & the bulb must be replaced. Repair is impossible. There is a high correlation between reliability & durability when products can be repaired. A product with a high failure rate (lack of reliability) is scrapped earlier than more reliable products.

SERVICEABILITY

Serviceability refers to speed, courtesy & competence of repair. Consumers are concerned, not only about a product's break-down, but also about the elapsed time before service is restored, the timelines with which service appointments are kept, the nature of their dealings with service personnel & with the frequency with which service calls or repairs fail to correct outstanding problems & specific customer issues.

PERCEIVED QUALITY

Perceived quality refers to what customers think they are buying, rather than what they are actually buying. A \$95 facial crème does not belong, & will not sell, in a discount drug store. It must be sold through an upscale department store or specialty boutique. Perceived quality extends beyond what is put into the package. Packing, distributive channels, pricing, advertising themes, reputation, etc. create the notion of what is termed...perceived quality.

AESTHETICS

Aesthetics refers to "how a product looks, feels, tastes or smells". Aesthetics is an abstraction, but there are approaches for measuring & dealing with it. "Hotel appearance" is certainly a quality feature, but it also seems like an abstraction. However, digging in & identifying the specifics of what collectively constitutes appearance, - "the condition of the carpet, lavatory, linens, windows, ash trays & so on", one can begin to develop a baseline standard.



UNDERSTANDING THESE EIGHT DIMENSIONS OF QUALITY IS KEY TO REALIZING A SUCCESSFUL MANUFACTURING ORGANIZATION. STATISTICAL QUALITY CONTROL FOCUSES PRIMARILY ON CONFORMANCE TO SPECIFICATIONS. IN THIS CONTEXT, BETTER CONFORMANCE & REDUCTION IN CHARACTERISTIC VARIABILITY WILL LEAD, IN MOST CASES, TO IMPROVED PRODUCT PERFORMANCE & GREATER ACCEPTANCE IN THE MARKETPLACE.

Definition of Quality

Main Entry: ¹**qual·i·ty**

Pronunciation: 'kwä-l&-tE

Function: *noun*

Inflected Form(s): *plural -ties*

Etymology: Middle English *qualite*, from Old French *qualité*, from Latin *qualitat-*, *qualitas*, from *qualis* of what kind; akin to Latin *qui* who -- more at [WHO](#)

1 a : peculiar and essential character : [NATURE](#) <her ethereal *quality* -- Gay Talese> **b** : an inherent feature : [PROPERTY](#) <had a *quality* of stridence, dissonance -- Roald Dahl> **c** : [CAPACITY](#), [ROLE](#) <in the *quality* of reader and companion -- Joseph Conrad>

2 a : degree of excellence : [GRADE](#) <the *quality* of competing air service -- *Current Biography*> **b** : superiority in kind <merchandise of *quality*>

3 a : social status : [RANK](#) **b** : [ARISTOCRACY](#)

4 a : a distinguishing attribute : [CHARACTERISTIC](#) <possesses many fine *qualities*> **b** *archaic* : an acquired skill : [ACCOMPLISHMENT](#)

5 : the character in a logical proposition of being affirmative or negative

6 : vividness of hue

7 a : [TIMBRE](#) **b** : the identifying character of a vowel sound determined chiefly by the resonance of the vocal chambers in uttering it

8 : the attribute of an elementary sensation that makes it fundamentally unlike any other sensation

synonyms [QUALITY](#), [PROPERTY](#), [CHARACTER](#), [ATTRIBUTE](#) mean an intelligible feature by which a thing may be identified. [QUALITY](#) is a general term applicable to any trait or characteristic whether individual or generic <material with a silky *quality*>. [PROPERTY](#) implies a characteristic that belongs to a thing's essential nature and may be used to describe a type or species <the *property* of not conducting heat>. [CHARACTER](#) applies to a peculiar and distinctive quality of a thing or a class <remarks of an unseemly *character*>. [ATTRIBUTE](#) implies a quality ascribed to a thing or a being <the traditional *attributes* of a military hero>.