

The Kano Analysis: Customer Needs Are Ever Changing

Toolbox Talk



The Kano Analysis

How does a company analyse customer needs? How can it easily determine what delights customers or what their basic needs are? One powerful technique to address these questions has been developed by Professor Noriaki Kano of Tokyo Rika University, and his colleagues. This is Kano's theory: For some customer requirements, customer satisfaction is proportional to the extent to which the product or service is fully functional.

The **Kano model** classifies customer preferences into five categories.

Must-be Quality

Simply stated, these are the requirements that the customers expect and are taken for granted. When done well, customers are just neutral, but when done poorly, customers are very dissatisfied. Kano originally called these "Must-be's" because they are the requirements that must be included and are the price of entry into a market.

Examples: In a hotel, providing a clean room is a basic necessity. In a call centre, greeting customers is a basic necessity

One-dimensional Quality

These attributes result in satisfaction when fulfilled and dissatisfaction when not fulfilled. These are attributes that are spoken and the ones in which companies compete. An example of this would be a milk package that is said to have 10% more milk for the same price will result in customer satisfaction, but if it only contains 6% then the customer will feel misled and it will lead to dissatisfaction.

Examples: Time taken to resolve a customer's issue in a call center. Waiting service at a hotel.

Attractive Quality

These attributes provide satisfaction when achieved fully, but do not cause dissatisfaction when not fulfilled. These are attributes that are not normally expected, for example, a thermometer on a package of milk showing the temperature of the milk. Since these types of attributes of quality unexpectedly delight customers, they are often unspoken.

Examples: In a callcenter, providing special offers and compensations to customers or the proactive escalation and instant resolution of their issue is an attractive feature. In a hotel, providing free food is an attractive feature.

Indifferent Quality

These attributes refer to aspects that are neither good nor bad, and they do not result in either customer satisfaction or customer dissatisfaction. For example, thickness of the wax coating on a milk carton.

This might be key to the design and manufacturing of the carton, but consumers are not even aware of the distinction. It is interesting to identify these attributes

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in the product in order to suppress them and therefore diminish production costs.

Examples: In a call centre, highly polite speaking and very prompt responses might not be necessary to satisfy customers and might not be appreciated by them. The same applies to hotels.

Reverse Quality

These attributes refer to a high degree of achievement resulting in dissatisfaction and to the fact that not all customers are alike. For example, some customers prefer high-tech products, while others prefer the basic model of a product and will be dissatisfied if a product has too many extra features.

Examples: In a call centre, using a lot of jargon, using excessive pleasantries, or using excessive scripts while talking to customers might be off-putting for them. In a hotel, producing elaborate photographs of the facilities that set high expectations which are then not satisfied upon visiting can dissatisfy the customers.

The Kano model addresses the three types of requirements:

- Satisfying basic needs: Allows a company to get into the market.
- Satisfying performance needs: Allows a company to remain in the market.
- Satisfying excitement needs: Allows a company to excel, to be world class.

Dissatisfiers or Basic Needs – Expected features or characteristics of a product or service (legible

forms, correctly spelled name, basic functionality). These needs are typically “unspoken.” If these needs are not fulfilled, the customer will be extremely dissatisfied. An example of an “unspoken” need when staying at a hotel is cleanliness. This includes a clean bathroom, clean linens and a pleasant, fresh aroma in the air. When a person books a reservation at a hotel, they do not request a clean room. They expect it. If this basic need is not met, they will be extremely dissatisfied.

Satisfiers or Performance Needs – Standard characteristics that increase or decrease satisfaction by their degree (cost/price, ease of use, speed). These needs are typically “spoken.” Using the hotel example again, “spoken” needs could be Internet access, a room away from the elevators, a non-smoking room, the corporate rate, etc.

Delighters or Excitement Needs – Unexpected features or characteristics that impress customers and earn the company “extra credit.” These needs also are typically “unspoken.” Think of the Doubletree Hotels. Those who stay there are delighted by a freshly baked, chocolate chip cookie delivered to their room during turn-down service.

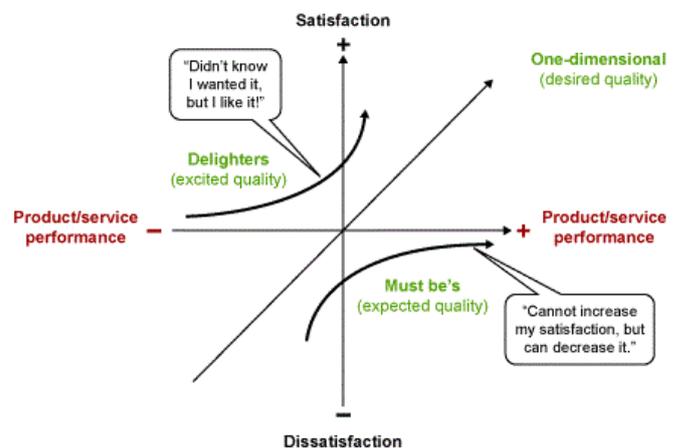


Fig 1: The Kano Model illustrated

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Customer Needs Change

The horizontal axis of this figure indicates how fully functional a product/service is. The vertical axis indicates how satisfied the customer is. The line going through the origin at 45 degrees, represents the situation in which customer satisfaction is directly proportional to how fully functional the product/service is. In other words, it represents the situation in which the customer is more satisfied with a more fully functional product/service and less satisfied with a less functional product/service.

Kano terms such requirements as “one-dimensional” requirements. A 10% improvement in functionality results in a 10% improvement in customer satisfaction. For example, the faster the response time on a system, or the more miles per gallon for a vehicle, the more the customer likes it.

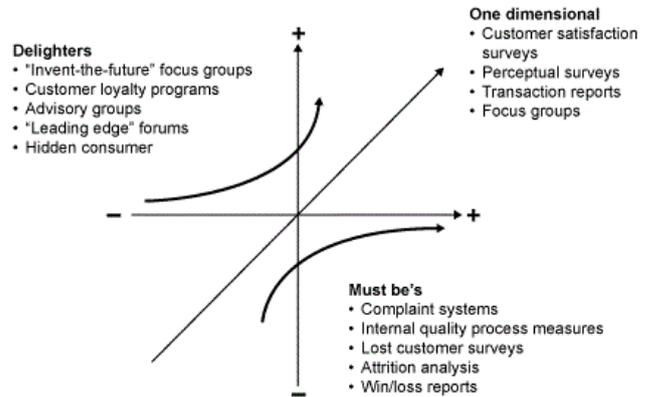


Fig 3: How Requirements Can Be Identified

Here is the Kano analysis in summary:

The Kano analysis helps to identify unspoken needs before prioritization.

It is intended to help prioritize customer needs.

It should be linked to a company's multi-generational project plan.

Generation 1 has to cover the “must be's.”

The company must realize that customers' expectations and/or needs vary over time.

Needs change. For example, in the Doubletree Hotel example about the freshly baked, chocolate chip cookie: Many people are becoming more health conscious now. Perhaps a high-calorie, confectionary item is no longer a top delighter. Also, consider the comment about the need for Internet access in the hotel room being a satisfier. While wireless Internet access began as a delighter, it is now a basic need of convenience.

The important points to keep in mind are 1) what delighted customers in the past is now expected and 2) what is expected today will not meet minimum customer expectations in the future.

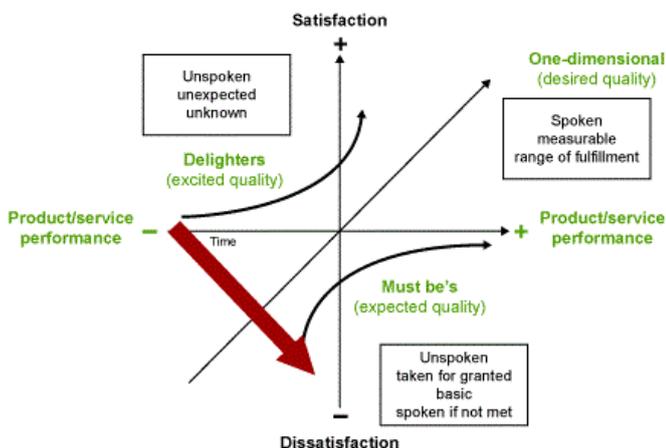


Fig 2: The Extended Kano Model illustrated

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Noriaki Kano completed his undergraduate, masters, and doctoral degrees in the engineering school of the University of Tokyo. He retired from the Tokyo University of Science (TUS) after 35 years in research and education, as a lecturer and associate professor at the University of Electro-Communications and a full professor and head of the Department of Management Science at TUS.



He was the 1997 recipient of the Deming Prize for Individuals, administered by the Japanese Union of Scientists and Engineers (JUSE).[3] In 1997 he also received the Deming Lecturer Award of the American Statistical Association; his paper for the annual Deming Lecture was titled "Business Strategies for the 21st Century and Attractive Quality Creation." [4]

Kano is the only honorary member of three societies i.e. International Academy for Quality (IAQ), American Society for Quality (ASQ) and Japan Society for Quality Control (JSQC). He was the recipient of two ASQ Medals of Distinction: the E. Jack Lancaster Medal for 2002[5] and the E. L. Grant Medal for 2007.[6][7] Kano is a recipient of the Georges Borel Award for international contribution by the European Organization for Quality (EOQ). Kano is the Honorary Chairperson of Asian Network for Quality (ANQ)

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