

# Quality Tools

## Six Sigma Tools

### KANO ANALYSIS

#### Description of a Kano Model:

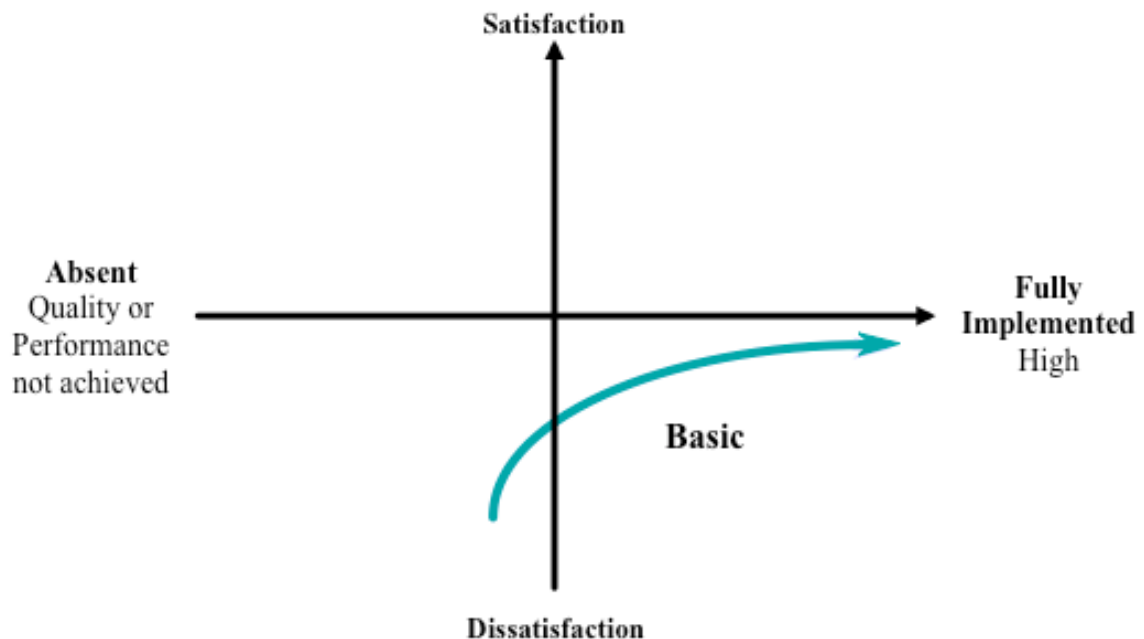
The Kano model was developed by Dr. Noriaki Kano, a Japanese engineer as a way to prioritize customer requirements. Not all customer requirements are of equal importance and the Kano Model allows a classification of these product or service attributes. Both the relative importance of service or product attributes and their correlation with customer satisfaction are evaluated in a Kano analysis.

The Kano Model divides customer requirements into three categories: Basic, Performance and Delighter.

#### 1. Basic Requirements:

- Can dissatisfy but cannot increase satisfaction
- The Customer probably won't notice if these features or performance standards are met, but they will notice – and be extremely unhappy – if they are missing
- *Examples: convenient locations and hours of business, toilet rolls in a hotel room, cash in the ATM, brakes on a car,*

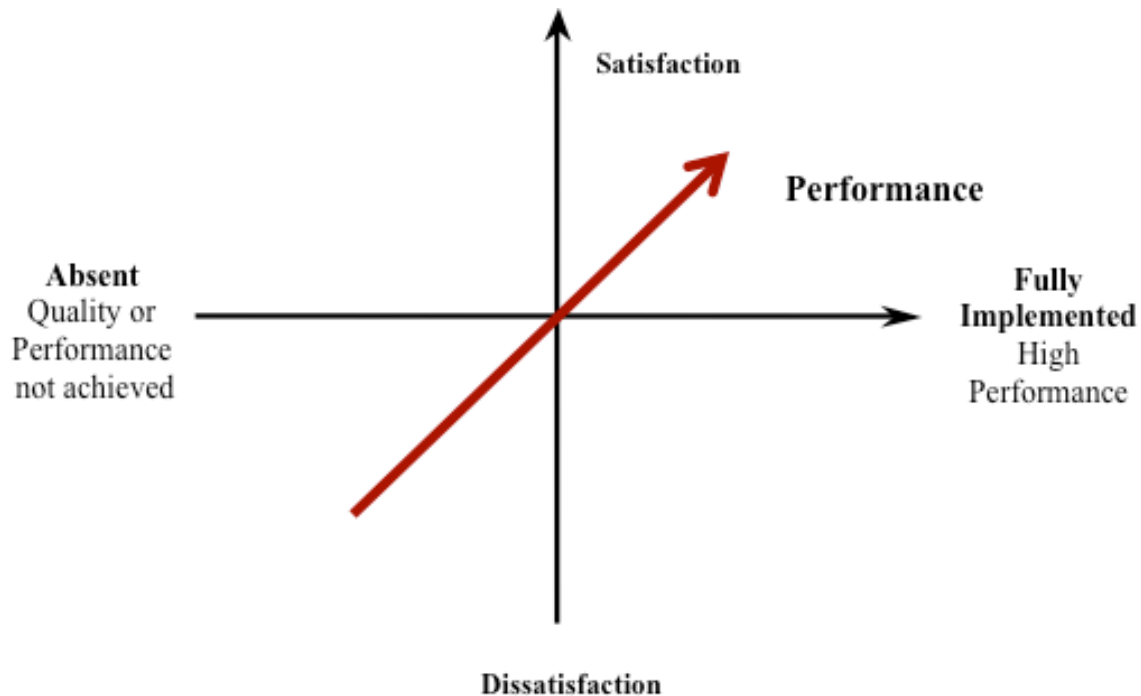
**Satisfying Basic Requirements only bring customer satisfaction up to expectations**



## 2. Performance Requirements:

- 'More is better' category
- Most day-to-day competition takes place over these factors, features, or capabilities (e.g., price)
- An absent or weak performance reduces customer satisfaction
- *Examples: cars with better fuel economy, trained, professional staff, waiting time for service, extra towels left for the beach/pool*

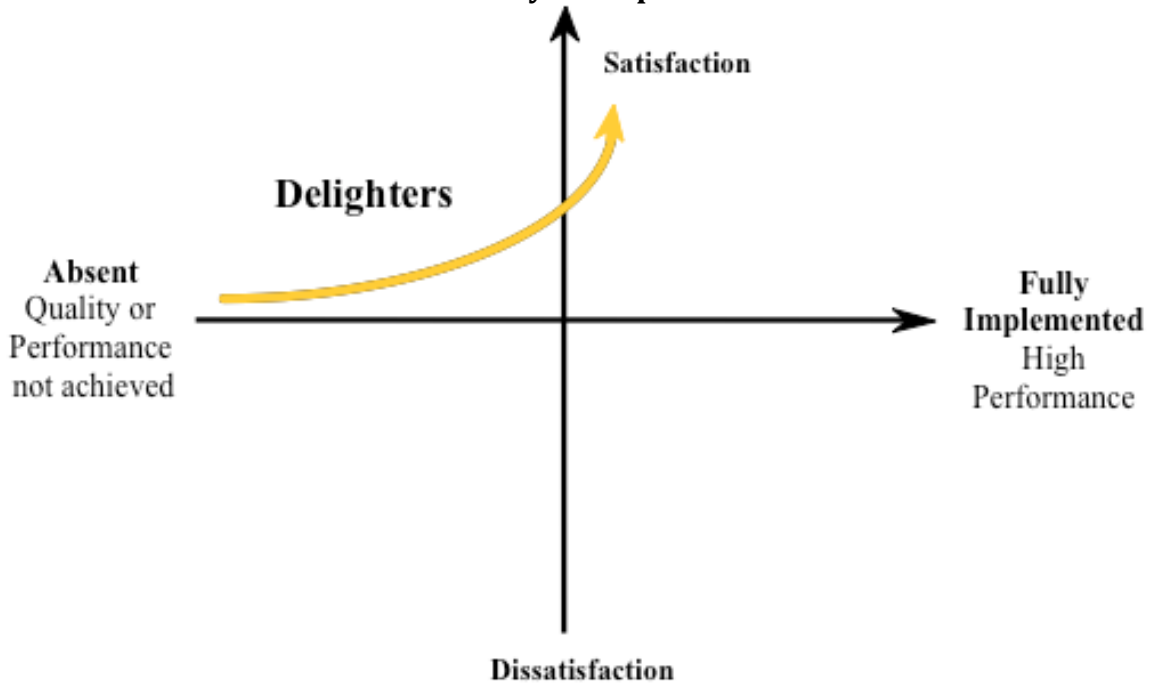
### **Satisfying Performance Requirements increases satisfaction**



## 3. Delighters Requirements:

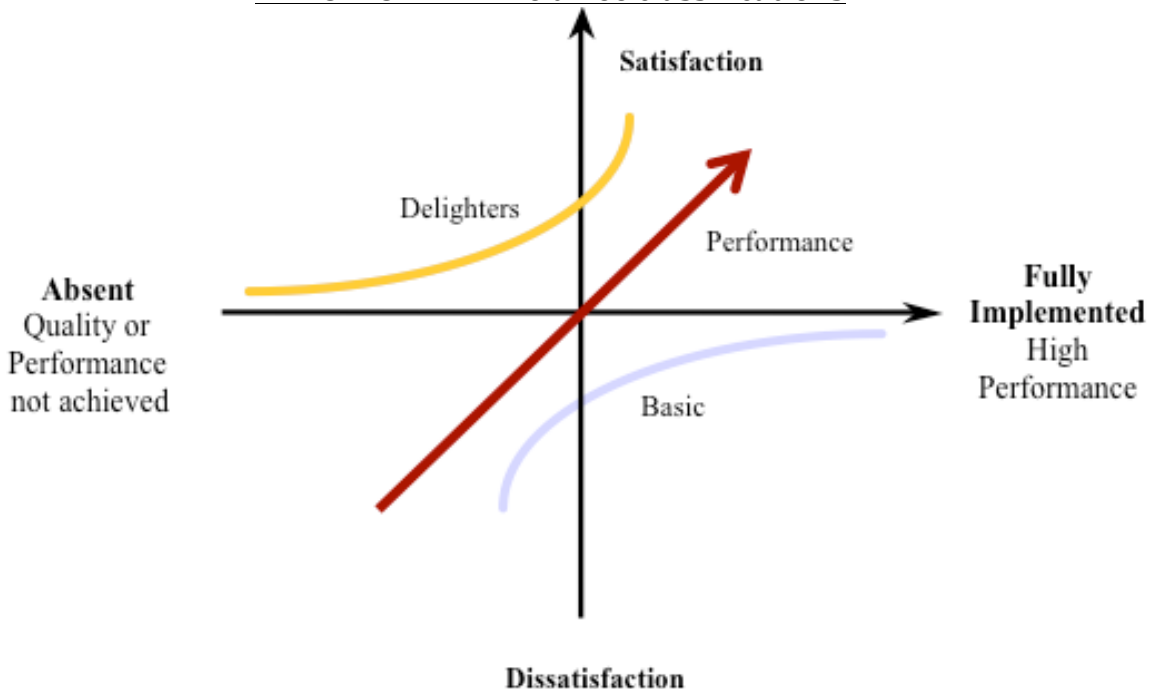
- If the requirement is absent, it does not cause dissatisfaction, but it will delight clients if present
- Go beyond what Customers expect – Wow factor
- Often satisfy latent needs, real needs of which customers are currently unaware thus providing a competitive advantage.
- *Examples: lifetime warranty on the roof of a newly purchased home, a pre-stocked fridge in a vacation rental home*

**Satisfying Delighter Requirements greatly increases satisfaction, but does not dissatisfy if not present**



A competitive product or service meets the Basics, maximizes on Performance and includes as many Delighters as possible at a reasonable cost. Customer needs are always changing, something that Delights a customer today will become a Basic need in the future.

**KANO MODEL - The three classifications**



Note: there are two other Kano classification, “Indifferent” and “Reverse” that are rarely used and so will not be discussed here.

### When to use the Kano analysis:

The Kano Model is useful for determine what features you want to use in a product when you:

- Make changes in existing products or services
- Develop new products or services
- Analyze competitive products or services

### How to Use A Kano:

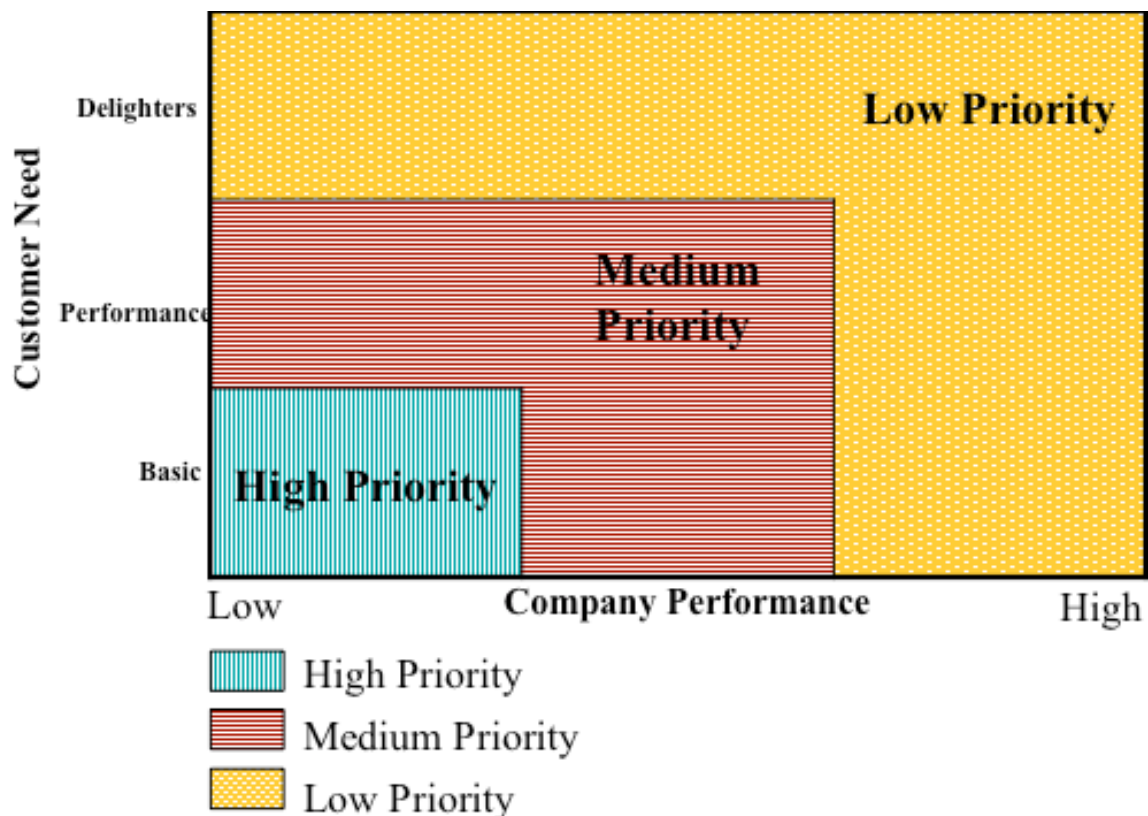
*Step 1:* Identify customer’s needs and wants by capturing the Voice of the Customer (VOC). Voice of Customer is a method to capture qualitative and quantitative customer requirements through various channels including surveys, interview, focus groups, customer complaints, competitive analysis etc.

*Step 2:* Translate the requirements into what is important to the customer - quantitative attributes known as critical to quality characteristics (CTQ’s).

*Step 3:* Prioritize the critical to quality characteristics as basic, performance or delighter.

*Step 4:* Assess how well your business is satisfying each of these characteristics.

The diagram below allows a classification of your CTQ’s:



*Step 5:* Use your Kano analysis results as input into your product/service development or improvement efforts. Immediately address Basic requirements that your product or service does not currently deliver. Assess how much of the Performance attributes you need to provide to ensure the optimum balance between profitability, growth and customer satisfaction. If you do not currently have any delighters, provide inputs to produce/process development teams to initiate incorporation of some of these into your products or services.

**Tips on use of a Kano Analysis:**

Clearly identify who your customers are

There are some product or service attributes that cannot be classified according to the Kano Model since they have little or no consequence to the customer. E.g. bar coding on parts under the hood of the car

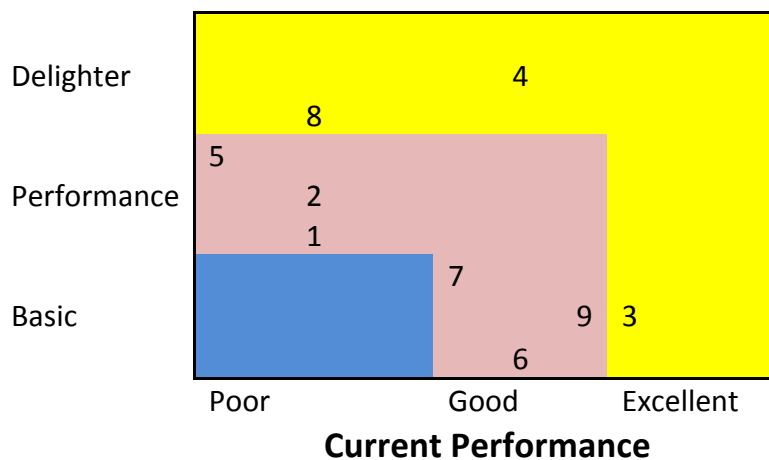
If possible, have your customer's participate in the classification with you.

## Application of a Kano Analysis

Service Process: Credit Union Business Account Open

Background: A customer facing process of opening a Business Account was evaluated. Through shadowing, focus groups and surveys, the Voice of Customer was gathered. Voice of Customer feedback was grouped and translated into Critical to Quality characteristics. Below is a Kano analysis of these CTQ's

TYPE	CLIENT NEEDS _ CTQ	CURRENT PERFORMANCE
Basic	7 Service time between 15-20 minutes	Good
	6 Zero errors in application processing	Good
	3 Legal requirements fully disclosed	Excellent
	9 Courteous staff	Good
Performance	5 Maximum of 3 forms to be completed	Poor
	2 No more than 2 visits to complete	Poor
	1 Account documentation available immediately	Poor
Delighters	8 On-line application	Poor
	4 Tips and advice on business	Good



**KANO ANALYSIS CHART WITH PRIORITIZED CTQ's**

**References:**

Pyzdek, Thomas. [The Six Sigma Handbook](#), Revised and Expanded, New York: 2003.