Categorizing service features using the Kano model

When you provide a product or service to a customer, they receive benefits from the variety of features that make up the specific product or service. Each feature varies in importance to the customer and affects their overall satisfaction level. When looking at ways to improve the products or services you provide, it is a good idea to develop an understanding of which features form the foundation of the service, which can be adjusted to give the customers additional value, and where opportunities can be found to impress the customer.

One simple, but amazingly powerful tool that you can use to gain this understanding is the Kano model. Developed by Professor Noriaki Kano, it is a method for categorizing features according to their effect on customer satisfaction. The model classifies features into five categories. They are:

- Must-Haves
- One-Dimensional (or Satisfiers)
- Delighters
- Dis-satisfiers
- Indifferent

The Kano model

The Kano model shows the feature categories on a two-axis plane (Figure 1). The horizontal axis represents how functional a feature is. On the left side of the line, the feature is non-existent or non-functional for the customer. As you move to the right along this line, features are added to the product or service, and they become more functional for the customer. The vertical axis shows the degree to which each category affects customer satisfaction. At the bottom of the axis, the customer is very dissatisfied with the product or service. As you move up the line, customer satisfaction increases, to the point the customer is fully satisfied. It is on these axes that the five categories are overlaid, and we can see how each relates to function and customer satisfaction.
To help explain how various features are categorized using the Kano model, I am going to use purchasing a sports car as the primary example. While a car is a physical product, it makes the concepts easier to grasp. In each section, I will also provide examples for the service environment.

**Must-have features**

Some features are fundamental to a product or service, and without these critical features it is not functional (does not provide a benefit) for the customer. If a person is purchasing a sports car, there are some basic expectations that they have when they walk in the door. Features like seats, wheels, and an engine, and the functionality they provide are elements that a customer would automatically expect in any car, and are features that it must have in order to be considered complete and usable.

On the Kano model, the must-have line is the red line in Figure 2. With must-haves, it does not take much lack of function to make a customer very unhappy; so a slight dysfunction causes customer satisfaction to fall rapidly. At the same time, since the functionality provided by these features is expected to be a part of the product or service, providing them does not really increase customer satisfaction.

From a service standpoint, must-haves would be the critical features that make up the service itself. Providing customers with the necessary forms they need to fill out, being able to answer questions and provide accurate information when the customer asks, and being able to complete the service within the time frame the customer needs, would all be considered must-have service features. They can easily be identified by putting yourself in your customers’ shoes and thinking about how negatively the service would be impacted if these features were not available or not working as expected. If it only takes a tiny mistake or small failure to derail the service, the feature most likely goes in the must-have category.

**One-dimensional features**

Some features are not necessarily fundamental to a product or service, but their functionality plays a key role in customer satisfaction, and can increase or decrease satisfaction proportionally to the amount of functionality that the customer receives.
On the Kano model, the one-dimensional line is the blue line in Figure 3. With one-dimensional features, the more functionality given to a customer, the more satisfied they are. One-dimensional features are not necessary in order for the service to be basically functional, but they do play an important role in how customers view the products or services.

Using the sports car example, features like cost, greater horsepower, better gas mileage, more rugged equipment, and more comprehensive warranties would be examples of one-dimensional features. Take gas mileage for example. The better the gas mileage the car gets, the more satisfied the customer will be. If the car gets 20 miles per gallon (MPG) they might be satisfied, but as gas mileage gets better - 30 MPG or even 40 MPG - their happiness with the car will increase proportionately. On the other-hand, if gas mileage goes down, satisfaction will decrease proportionately.

It is the one-dimensional features that set products and services apart from those offered by other organizations. This is why car manufacturers advertise and compete against one another with longer warranties, greater gas mileage, and more powerful vehicles. Improving and changing one-dimensional features is where you will get the greatest result from the time and resources you put in.

In the service environment, one-dimensional elements would be things that you can control and which increase or decrease satisfaction based on what the customer receives. Shortening wait times, increasing the speed at which service can be provided, and lowering costs would all increase the functionality of a service for customers, and would increase their satisfaction as well.

**Delighter features**

Delighters are features that are not expected, but when they are present in a product or service, they greatly increase customer satisfaction. This is the ‘WOW’ factor that can be brought into play to polish up a product or service and really make it stand out in customers’ minds.
On the Kano model, the delighter line is the green line in Figure 4. With delighters, if they are not present or do not add a lot of functionality to the product or service, it does not affect customer satisfaction very much. That said, adding delighters and providing a little bit of functionality from them greatly improves customer satisfaction with the product or service. There are limits to delighters, however. They have a point of diminishing return where you cannot keep adding the same or similar delighters and expect that customer satisfaction will continue to increase in the same way that one-dimensional features do.

Going back to the example of the sports car, delighters would be hand-stitched leather seats, real wood interior accents, satellite radio, GPS navigation, and entertainment systems. Each of these features adds a little something extra to the car and makes the experience of owning and driving it more enjoyable. They would not be one-dimensional features because adding more and more of each one would not keep increasing satisfaction and might have a negative effect on the customer. If the car had three functioning GPS systems installed, they would not all be useful and would take up space for other features. At some point having a number of redundant GPS systems would become irritating and have a negative impact on the customer’s perception of the car. In this case more does not equal greater customer satisfaction.

In a service environment, you want to look for things that are not a part of the normal process, but would make the experience more enjoyable for the customer. This is where creativity can provide a boost to the customer experience. Delighters in a service environment could be things like handing out water to customers on a hot day, providing comfortable seating and a television in a waiting area, or taking the time to send thank you notes to customers. Sometimes it is as simple as giving the customer a genuine smile while serving them.

Something to keep in mind about delighters is that over time they can move from being delighters to being must-haves. A good example of this happened when I was teaching the Kano model to a class in ASU’s Human Resources department. We were using the car example, and remote door locks were listed as delighters. One participant disagreed and said that because she had to get her children into and out of her car quickly and safely, from her point of view remote door locks were a must-have feature. Many others agreed. When they were first introduced, remote door locks might have
been delighters, but now they have moved into the realm of must-have features that people expect all cars to have.

**Dis-satisfier features**

While one-dimensional features increase or decrease customer satisfaction proportionally to the amount of functionality that the customer receives, dis-satisfiers have the opposite effect and increase or decrease customer satisfaction proportionately to the amount of functionality that the customer does not receive.

On the Kano model, the dis-satisfier line is the orange line in Figure 5. With dis-satisfier features, the less functionality you give to a customer, the more satisfied they are. Taking the time to identify dis-satisfiers and reduce or eliminate them will greatly improve the customers' overall experience.

Looking at the sports car example, features like powerful engines, stiffer suspension, and having the body lower to the ground are desirable. However, powerful engines are loud, overly stiff suspensions provide a rougher ride, and low ground clearance means the car may scrape the ground when going over bumps. All of these can quickly become dis-satisfiers. In this case, a car manufacturer would want to look for ways to reduce the noise produced by the engine (the noise being the ‘function’ provided by having a powerful engine), stiffen the suspension but maintain a smooth ride, and design the body so that it can hug the road but not scrape every little bump that is encountered.

In a service environment, examples of dis-satisfiers would be rudeness or poor staff attitudes, defects caused by employee mistakes or a poor service process, and long delays in providing or completing service.

**Indifferent features**

Features that fall into the indifferent category do not appear on the graphical representation of the Kano model. Indifferent features do not make an impact on customer satisfaction regardless of how much or how little the customer receives. Using the sports car example one more time, indifferent features might be the brand or name of the car, the number of design awards the car has been awarded or which celebrities endorse it. In a service environment, an indifferent feature might be the color of the forms that the customer has to fill out.
The complete model

The complete Kano model is displayed in Figure 6. This model makes it easy to see how the features and corresponding amount of functionality that each contribute to products and services impact customer satisfaction. One of my favorite things about this model is that it is very easy to use, and the analysis can be completed quickly. Taking just a few minutes to work with this model yields a clear picture of where additional features and functionality are needed, which ones can be adjusted up or down to increase customer satisfaction, and where steps can be taken to add a little polish that will make products and services stand out.

When you get done reading this article, I urge you to choose a single service that you provide and take five minutes to analyze it using the Kano model. All you need to do is pull out a piece of paper, write the categories on it, and then spend a few minutes brainstorming and listing all of the features the service provides to your customers in the appropriate categories. Knowing which category each feature belongs to will help you to see how to make adjustments that will increase customer satisfaction. I think you will be surprised at the gems of knowledge you uncover and how much you learn about your service.

I would love to hear what you find when you use this tool. As always, I welcome your questions and feedback. You can email me at clayton.taylor@asu.edu.

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