# Influence of Current OPPO Mobile Phone Functions on Customer Satisfaction Based on Kano Model

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**ABSTRACT**

Customer satisfaction is a factor managers should focus on if companies want to be competitive in today's competitive environment. In today's era of popular shopping, customer feedback on the company's products is very important, which is beneficial to the company's bottom line. Customers who are satisfied with the product will bring many benefits to the company, such as repurchasing, promoting to others and so on, in order to build a good reputation for the company. This study conducted a random survey of 100 customers of OPPO mobile phones, the purpose is to test the Kano Model for the mobile phones of OPPO company, in order to describe the customer's satisfaction with the functional services of OPPO mobile phones.

*Keywords:* customer satisfaction, OPPO, Kano Model, Better-Worse Coefficient.

## 1.Introduction

Due to the impact of the COVID-19 epidemic, people are forced to work remotely from home most of the time, and the demand for electronic products is greater. And with the advent of the information age and the rapid development of e-commerce technology, the frequency of people's use of mobile phones is also increasing. According to statistics, the sales of mobile phones that are made in China, such as OPPO mobile phones, have been steadily increasing since 2021, occupying an important position in the Chinese smartphone market [1]. People's demand for mobile phones has increased, so major mobile phone manufacturers have begun to update their mobile phones. This has also led to more requirements for customers to choose mobile phones, such as whether the mobile phone has a projection function and whether it can be automatically beautified. In the process of choosing a mobile phone, in order to facilitate their own life and work, customers will specifically understand whether the functions of the mobile phone are beneficial to them.

Therefore, in recent years, new products in the mobile phone market have been overwhelming. Under such fierce competition, managers of various mobile phone manufacturers pay more attention to customer satisfaction, customer needs and their own problems, and customer satisfaction has become more important [2].

## 2.CUSTOMER SATISFACTION AND CUSTOMER NEEDS

In traditional transaction activities, customer satisfaction is considered to be an indicator to measure customer satisfaction with products, services, and capabilities. At a certain point in time or period of time, consumers feel the overall emotion of the product [3]. Customer satisfaction assessment links customer satisfaction with its cause variables and result variables, and objectively reflects the impact of a certain service or function of a product on satisfaction.

Customer satisfaction depends on the comparison between what customers expect from a company or business to provide products and services and what they actually do. Before buying a product, customers have positive subjective psychological hints about the functions and services that the product should have, indicating that customers have important needs for this function. When customers actually use the product, they will psychologically compare their expectations before purchase with the actual situation after purchase, which is reflected in the feedback on the product, which determines whether the customer will repeat the purchase of the product and service in the future [3].

Therefore, it should be noted that the evaluation of customer satisfaction plays a vital role in the development of the product. Also, it should be a regular task to

understand the reputation and development direction of the product in the market, and then make corrections in the future.

# 3. AN EMPIRICAL STUDY BASED ON THE KANO MODEL

## 3.1. Kano Model

According to the one-dimensional quality model, customers are satisfied when certain quality requirements are fully met, while failure to meet them results in dissatisfaction. But not all factors can only be considered from a one-dimensional perspective [4]. Therefore, the Kano model proposed by Kano et al. is based on Herzberg's "Motivation-Hygiene" Two-Factor Theory.

Kano said that not all requirements/features have the same impact on customer satisfaction. So, the Kano model, as a two-dimensional model, considers both sides of the problem, the impact of this factor on customer satisfaction may be a positive increase, also possibly a negative reduction [4]. Therefore, Kano and his colleagues assigned different attributes to the factors affecting customer satisfaction in this two-dimensional model in order to analyze customer satisfaction efficiently and conveniently. They are A-Attractive; P-Performance; M-Must haves; I-Indifferent; R-Reserve and U-Unknows:

- Attractive: If a function/service is highly complete, user satisfaction will increase significantly. If there is no such function/service, user satisfaction will not decrease significantly.

**Table 1.** Classification comparison table of Kano model

|  | Dislike | Tolerable | Neutral | Expected | Like |
|---|---|---|---|---|---|
| Dislike | U | R | R | R | R |
| Tolerable | M | I | I | I | R |
| Neutral | M | I | I | I | R |
| Expected | M | I | I | I | R |
| Like | P | A | A | A | U |

A: Attractive, P: Performance, M: Must haves, I: Indifferent, R: Reserve, U: Unknowns

- Performance: If a certain function/service is highly complete, user satisfaction will increase. If there is no such function/service, user satisfaction will decrease.

- Must haves: If a function/service has a high degree of perfection, and the increase in user satisfaction is not obvious. If there is no such

function/service, user satisfaction will drop significantly.

- Indifferent: No significant relationship between a feature/service and satisfaction.

- Reserve: When a certain function/service has a high degree of perfection, user satisfaction will decrease.

- Unknows: the two questions don't combine in a logical way.

## 3.2. Collection of data and surving design

As a world-leading smart terminal manufacturer and mobile internet service provider, OPPO is deeply loved by customers through a series of smart appliances themed on mobile phones. In 2018, OPPO ranked fifth in the global smartphone market with a market share of 8.1%, and ranked second in China with a market share of 19.8% [1]. It can be seen that OPPO's influence in the smartphone market is preeminent, and it is also loved by customers.

However, with the emergence of more brands in the smartphone market, it has brought a certain impact to OPPO. In order to compete with other smartphone companies, OPPO has begun to attract customers by continuously launching new models and lowering the price of mobile phones. So for the company's managers, how to make customers not be attracted by other smartphones and insist on choosing OPPO mobile phones has become their most difficult thing. Therefore, through the analysis of customer satisfaction with the Kano Model, we can understand the customer satisfaction of various functions of OPPO mobile phones, so as to improve customer loyalty to OPPO mobile phones [6].

Firstly, the questionnaire asked the customer's personal information, such as gender (male or female), age (less than 20, 20-30, 30-40 and above) and educational background (junior college, undergraduate, master and doctor). Then, the questionnaire formulated positive and negative questions according to the two-dimensional model, collected the customer's attitude towards each mobile phone function by setting the five-level satisfaction scale [7].

In this questionnaire, each question has a list of five options. 1 point: I don't like it (Dislike), 2 points: I can tolerate it (Tolerate), 3 points: I am neutral (Neutral), 4 points: I expect it (Expected) and 5 points: I like it (Like). After the questionnaire is formulated, the questionnaire is put on the Internet, and 100 samples are randomly selected for the Kano Model analysis.

Through the investigation and analysis of 9 kinds of mobile phone functions, each survey result is assigned the corresponding attribute in table 1(the horizontal axis shows dysfunctional, the vertical axis is functional), and the priority of each function is compared according to the value of the good or bad coefficient, so that managers and

manufacturers can choose and improve mobile phone functions. The 9 mobile phone functions are:

- Projection function

**Table 2.** Kano model analysis results

|  | Better | Worse | Classification |
|---|---|---|---|
| Projection function | 81.40% | 81.40% | Performance |
| L&R-hand mode | 97.92% | 25.00% | Attractive |
| Super-fast charge | 93.88% | 24.49% | Attractive |
| 3D projection | 31.71% | 19.51% | Indifferent |
| Photo search | 83.33% | 12.50% | Attractive |
| Automatic beauty | 20.51% | 58.97% | Must haves |
| Anti-theft | 30.00% | 67.50% | Must haves |
| Microscope | 30.77% | 23.08% | Indifferent |
| Remote control | 23.68% | 23.68% | Indifferent |

- L&R-hand mode (Left-and right-hand mode)
- Super-fast charge
- 3D projection
- Photo search
- Automatic beauty
- Anti-theft
- Microscope
- Remote control

### 3.3. Kano Model data processing

As shown in table 2, through the integration of 100 samples, 9 different mobile phone functions are given their special attributes. From this, it can be seen that each function has a different impact on customer satisfaction. By analyzing the priority of 9 different functions to complete the choice of different functions of OPPO mobile phones in order to improve customer satisfaction, increase product sales and make the company profitable.

The rule of priority evaluation is "M > P > A > I", this rule is used to determine the order of the impact of mobile phone functions on the product's customer satisfaction, and to determine which function has a greater impact on the product [7].

### 3.4. Better-Worse Coefficient

According to the proportion and classification of 6 attributes displayed by these mobile phone functions, the Better-Worse coefficient is calculated to compare the influence of the needs of 9 different functions on increasing or decreasing satisfaction. The Better index is between 0 and 1, the larger the obtained result, the more significant the effect of this function on customer satisfaction [8]. Data can be obtained intuitively for analysis through calculation, as in:

$$Better= (A+O)/(A+O+M+I) \qquad (1)$$

The Worse exponent is between -1 and 0. The smaller the result value, the more significant the function has on customer satisfaction [8]. The Worse value of each mobile phone function can be obtained by calculation, as in:
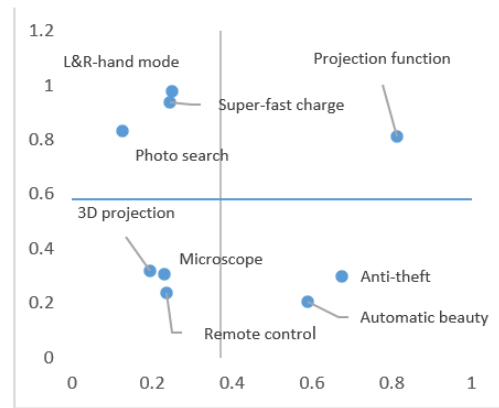
$$Worse=-1*(O+M)/(A+O+M+I) \qquad (2)$$



**Figure 1.** Better-Worse Coefficient Plot

The values of the above 9 mobile phone functions are calculated by the above two formulas, and the Better-Worse coefficient table of the 9 functions is obtained, and the Better-Worse Coefficient Plot is established to intuitively reflect the coordinates of the 9 functions. In Fig. 1, the horizontal axis is absolute value of Worse, the vertical axis is the value of Better.

### 3.5. Data analysis

In this Better-Worse Coefficient Plot, the attribute in the first quadrant is Performance, the attribute in the second quadrant is Attractive, the attribute in the third quadrant is Indifferent, and the attribute in the fourth quadrant is Must haves [9].

- The first quadrant

The first quadrant has a higher Better value and a higher absolute value of Worse. The functions or services in this quadrant should be prioritized.

The phone features in the first quadrant is: Projection function.

- The second quadrant

The second quadrant has a higher Better value and a lower absolute value of Worse. The functions or services in this quadrant should be prioritized.

The phone features in the second quadrant are: L&R-hand mode, Super-fast charge and Photo search.

- The third quadrant

The third quadrant has a lower Better value and a lower absolute value of Worse. The functions or services in this quadrant are generally not considered.

The phone features in the third quadrant are: 3D projection, Microscope and Remote control.

- The fourth quadrant

The fourth quadrant has a lower better value and a higher absolute value of Worse.

The phone features in the fourth quadrant are: Anti-theft and Automatic beauty.

To sum up, the functions in the first and second quadrants indicate that the customer's demand for the function itself is in a positive state, and the customer desires these functions to appear on the mobile phone, so these functions should be prioritized when the mobile phone is manufactured. The functions in the third quadrant are usually not considered to affect customer satisfaction, because the presence or absence of these functions will not be truly reflected in customer satisfaction, so mobile phone manufacturers will choose to add or not add these functions according to their own preferences. The features in the fourth quadrant are definitely needed by customers. If these features are not in the mobile phone, customer satisfaction will drop dramatically.

## 4.Conclusion

To sum up, the functions in the first and second quadrants indicate that the customer's demand for the function itself is in a positive state, and the customer desires these functions to appear on the mobile phone. So, these functions should be prioritized when the mobile phone is manufactured. The functions in the third quadrant are usually not considered to affect customer satisfaction, because the presence or absence of these functions will not be truly reflected in customer satisfaction, so mobile phone manufacturers will choose to add or not add these functions according to their own preferences. The features in the fourth quadrant are definitely needed by customers. If these features are not in the mobile phone, customer satisfaction will drop dramatically.

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