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# Conjoint analysis on integrity management of public sectors based on buzz marketing

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## ABSTRACT

The development of public integrity management has been the focus of government which can defined as marketing organization; the introduction of customer satisfaction is a new issue, the public organization should utilize scientific quantitative method to increase public satisfaction. This article is aiming to apply marketing research method to analyze public satisfaction and suggest the key driving factors for government, the effective ways will be concluded to serve the public better and achieve long term social stability and sustained development. In the article, the new "customer orientation" will be introduced as buzz marketing, which may be core concept of government, through the quantitative marketing research, the practical applications are suggested. This article attempts to construct satisfaction model according to marketing theory and recognized satisfaction model and collect data by questionnaire, through the analysis, the current situation of integrity of public sector is described, according to the theory of buzz marketing, this article will establish index model on public satisfaction, through designing the questionnaire by orthogonal design, the conjoint analysis is executed to the current situation and suggests recommendations.

## KEYWORDS

Integrity; Public satisfaction; Buzz marketing; Customer orientation; Conjoint analysis.

# INTRODUCTION

Building "serving government" has become the major purpose and the basic state policy of China, function, value orientation and performance evaluation are the basic issues, which are similar with the marketing organization. The deepen of administer system reform needs to fit for development of China and the change of people's living standard; along, the government should boost social management and public serving, which will enhance the public integrity; at the same time, the people also attach more importance to public integrity. On other hand, rapid growth of economy imposes unstable factors to the development of integrity management by public sectors. The public integrity should keep up with the pace of economy development. Single pursing of superstructure will result in the social instability, without good public integrity, the macro-adjustment by government will be affected negatively. It is very necessary to transfer the function of government from governing to serving.

# LITERATURE REVIEW

## Public service

Quality is the important issue for the people to evaluate the product or service. For some services, the people cannot evaluate the technical quality even after they have received the service. To service, especially with experience qualities, the post-purchase is very important for the customer, for instance, the service of government; generally, after evaluation is difficult for provider and more risky for receiver. So in this situation, the word of mouth of user becomes the key, rather than other marketing tools; anymore, the user will attach more importance on charging, process of personnel, physical cues and efficiency to enhance perception.

## Customer satisfaction and brand loyalty

In practical marketing, the customer will be loyal to the seller who satisfies them; because of the switching costs involved, big consumer inertia exists, it is challenging to entice a customer away from a competitor (Philip Kotler, 2006). Customer satisfaction is the difference between customer's perceived utility and individual expectation, satisfaction is the function of perceived utility and expectation[1].

## Conjoint analysis

This is one marketing research method, especially being applied on new product or service; also include the modification of both. In marketing organization, according to the marketing experience, the manager identifies the several most important factors related with product or service that is the key to customer buying or using decision. Of course, the tradeoff among different character existed in the product or service. Conjoint analysis is a good method to evaluate customer's preferences or attitude on attributes of a product or service. The multiple factors full-concept method is applied in collecting data. The full concept is considered a more realistic, ecologically valid method because all factors are considered at the same time. The three steps are: Generate Orthogonal Design, Display Design, and Conjoint.

## Buzz marketing

It is an art of communication, which is the active and positive communication existed in customer and customer, customer and marketer. Kotler defined buzz marketing as the method of personal expressing and implying out of manufacturer, it is not processed by the third party. Buzz marketing make the people associate the positive information related with brand, product, manufacturer or seller to change the attitude and buying behavior, it is the two way communication. The customer expectation is relevant to the company promise, buzz and past purchasing experience, which are the basis forming customer expectation level. The company should devote enhancing customer expectation

and satisfying the features needed by customer. So the customer satisfaction is the entire attitude to purchased products[2].

## MEASURING MODEL AND RESEARCH METHOD

The integrity of public sectors is concentrated more and more recently, it means the degree being trusted by the public on different level government agency. High integrity will achieve the advocacy by most people and help government to promote the development of work. The evaluation of the public represent the satisfaction and trust, in other word, the image of government agency is close related with people's attitude, so the principles of customer satisfaction in marketing can be applied to measure the people satisfaction on institution.

### Characteristics of public satisfaction

Referring to customer satisfaction of marketing, the public is the customer of government. In 1994, ASCI were founded in USA. It offers the index on quality of product or service from customer angel for nation and enterprise.

### Evaluation of ASCI on public satisfaction on government

Chinese customer satisfaction index model(CCSI) : The China National Institute of Standardization and Tsinghua University co-founded the China customer satisfaction evaluation center, which accumulate the result on customer satisfaction from 1995 and develop advanced China customer satisfaction index (CCSI: Figure 1). This model was identified by national scientific department; it is the unique authorized method to evaluate customer satisfaction. The relative achievements are successfully applied in government work and enterprise strategy.
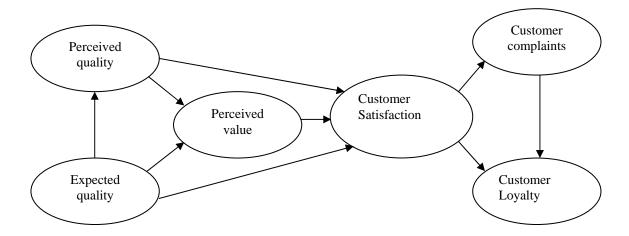
### Research model



**Figure 1 : Customer Satisfaction and Affecting Factors Model**

### Customer satisfaction and affecting factors model

According to this model, the economy model which can be measured and consists of the multi equations is founded. This model links the customer satisfaction with its determinants—customer expectation, perceived quality and perceived value, also links the customer complaints affecting profits with loyalty. According to the variables in the equation, inputting the score of interviewees will calculate the satisfaction score of company or institution. After that, the satisfaction score of the industry, each department and nation wide will be obtained[3].

In the perception on service quality by public, the attitude, fee, efficiency and physical evidence will influence perceived value of public. In the expectation of public, the people mainly focus on the

expectation of service and result of government job. The government is a special service institution and executes managing public while servicing public, then the fairness in government operation becomes key issue to measure its effectiveness by public.

**Conjoint analysis**

Public satisfaction covers many aspects, in this research, the construction of serving government to understand public needs, which is the base for better service. The local government agency responsible for industrial and commercial administration is selected; this is because this department most often communicates with the public and has become one of most important ones of government currently. How to adapt to the public needs will directly affect the integrity.

**Sample selection and orthogonal design**

Qualitative research is applied in this research; focus group is used to collect data to generate the questionnaire.

The program orthogonal designing takes advantage of the different conditions to adopt the method of random combination, which is being covered in the card. "Generating orthogonal design" creates a data file covering orthogonal major effects designing, which allow the statistical test of multiple factors; it is unnecessary to test each factor. Reality designing process shows this designing and gets data; the data is analyzed by other program, such as conjoint analysis. Through the sorting by customer, the combination of most satisfactory is obtained.

The most concerned by the public are: servicing attitude, handling efficiency, collecting fees and auxiliary condition, which are defined as major factors, the value of each is defined as: servicing attitude is good, fair and bad, handling efficiency is high and low, collecting fees is yes and no, auxiliary condition is high and low.

Public Card

**TABLE 1 : Public Card**

| Doc No.1: Pyblic Card | | | | |
|---|---|---|---|---|
| **Card Index** | **servicing attitude** | **handling efficiency** | **collecting fees** | **auxiliary condition** |
| 1 | | | | |
| Public Card | | | | |

Orthogonal designing generated 18 cards, in which the major factors is combined with different value, the evaluation of attitude is obtained through investigation on the sorting of satisfaction level. The result of attitude evaluation is the sorting of 18 cards, in which 1 represents most favorite combination and 18 is the combination of didn't love. The different combination is as following:

**Data analysis**

Conjoint analysis: To describe different major service attributes.

- Weight rating of attributes: Showing importance position occupied in the heart of people.
- Acceptance to people: Highlighting specific utility value to the people.
- Ratings of share of voice in the mind. Making people select like consumer through the function of interactive transaction.

Conjoint analysis is one expertise applied on multiple variables analysis in statistical area, it is mainly used to determine the importance of product/service attributes and related levels to customer, which is obtained by direct inquiry in traditional study, such as "which brand do you prefer", "which function do you think better" etc., because it is not in the actual buying situation, the answers of customer differ a lot, for example, for the brand and price, if adopting direct inquiry on single issue of brand, the price sensitive customer will chose high level brand that is not necessary to meet the price requirements, then the conclusion will result in faulty brand decision.

Relative to traditional study methods, "conjoint analysis" is more effective, it first simulate the small product combination understood by the customer by test designing according to the current situation of market and the customer attention on product/service attributes, and make the cards for customer to evaluate and order, and then use the methods of statistical analysis to find out the relative importance of each attribute and the relevant utilities, and finally determine the basis for marketing mix. The advantage of conjoint analysis is that it can stimulate the actual product/service (attributes and level combination) for customer to synthetically consider and decide the preference or possibilities for buying.

## Importance analysis

In this article, through analyzing the data and applying SPSS to obtain importance value as follows:

**TABLE 2 : Data importance value**

| Importance Vlaue | |
| --- | --- |
| Servicing attitude | 14.289 |
| Handling efficiency | 53.675 |
| Collecting fees | 10.456 |
| Auxiliary conditions | 23.912 |

**TABLE 2 : Orthogonal Desigining Data Combination**

| | Card indentity | Servicing attitude | Handling efficiency | Collecting fees | Auxiliary conditions |
| --- | --- | --- | --- | --- | --- |
| | | | Data combination | | |
| 1 | 1 | Good | Low | Yes | High |
| 2 | 2 | Fair | High | No | High |
| 3 | 3 | Good | High | No | Low |
| 4 | 4 | Good | Low | No | High |
| 5 | 5 | Good | Low | Yes | High |
| 6 | 6 | Bad | Low | Yes | Low |
| 7 | 7 | Bad | High | No | High |
| 8 | 8 | Good | High | Yes | Low |
| 9 | 9 | Bad | High | Yes | High |
| 10 | 10 | Good | Low | No | High |
| 11 | 11 | Fair | Low | No | Low |
| 12 | 12 | Bad | Low | No | Low |
| 13 | 13 | Good | High | Yes | Low |
| 14 | 14 | Good | High | No | Low |
| 15 | 15 | Fair | High | Yes | High |
| 16 | 16 | Fair | Low | Yes | Low |
| 17[a] | 17 | Bad | High | Yes | Low |
| 18[a] | 18 | Good | Low | No | Low |

Data combination

a. Retaining

Each factor utility scope measures the importance to total preference, the factor of bigger utility of factor is more important than one of smaller utility. So the handling efficiency is the most concerned by public, the second is servicing attitude, the last is collecting fees.

**Utility value simulation: The basic function of utility value simulation.**
Utility value represents the co-relationship of factor defining value and customer expectation, high value means high preference. The utility value by data analysis is as follows:

**TABLE 3 : Utility scores**

| | | Applying Program Estimation | Std. Error |
|---|---|---|---|
| | | **Utility Score** | |
| Servicing attitude | Good | 1.000 | .637 |
| | Normal | .250 | .746 |
| | Bad | -1.252 | .746 |
| Handling efficiency | Quick | -6.855 | .955 |
| | Slow | -13.712 | 1.911 |
| Collecting fees | No | -1.653 | .966 |
| | Yes | -3.290 | 1.920 |
| Auxiliary conditions | Low | -2.786 | .967 |
| | High | -5.671 | 1.924 |
| (Constant) | | 26.879 | 2.635 |

Because utility is shown in the public unit, so the total utility of any combination can be added. For instance, if with good service attitude, quick handling efficiency, no collecting fees and low auxiliary conditions, the total utility value is:

1.000+ (-6.855) + (-1.653) + (-2.786) +26.879=16.585

Through the investigation on public, the most actual utility is: normal good service attitude, slow handling efficiency, with collecting fees and high auxiliary conditions, the total utility value is 2.853. The government agency can improve servicing attitude, speed handling efficiency, low auxiliary conditions to enhance public satisfaction.

**Correlation analysis**
In TABLE 4, it indicates the statistics of Pearson's R and Kendall's tau, which measure the correlation between observed and estimated situation.
According to the Sig value, the two Sig value are same, the similarity degree gets to 100%, showing that estimated preference is same with what observed, is also good estimation by institution to public preference. Then the public sector can strengthen the focus of normal job to make public satisfaction boosted. As the result, good estimation on preference is helpful to form satisfaction.

**TABLE 4 : Correlation coefficients**

| Correlation [a] | Value | Sig. |
|---|---|---|
| Pearson's R | .932 | .000 |
| Kendall's tau | .695 | .000 |

| Kendall's tau for Holdouts | -1.000 | . |
|---|---|---|

**a. Correlation between observed preference and estimated preference**

**Advice for government to increase public integrity of government agency**
The handling efficiency is the most concerned issue by the public. Especially in China, lots of government agency always leaves the impression of "difficult to interacting and handling" to the people, the former is mainly because of problem of service consciousness, and the later is comparatively complicated. So the major advice is as below:
1. Realizing one-stop service.
2. Optimizing internal structure, integrating similar department and position, reducing unnecessary internal circulation.
3. Reducing unnecessary manual operation and physical shift of staff and material.
4. Ensuring information flow after, middle and before service through several channel (such as website, hotline).
5. simplifying internal procedure, facilitating internal information sharing, implementing job time limitation controlling.

## CONCLUSIONS

With the development of government service construction, the service system is gradually regulated, and the government public integrity is increasing. Better public integrity will promote the sense of identity and trust of public on the administration and authority, and then the social credit order will be improved. In the current information age, the market government should be utilized to solve public problem, in which the competition is the most effective method to solve problem of efficiency. The introduction of competitive method can essentially solve the motive problem for government to give efficient service. In China, in the process of the construction of servicing government, because of limited scope, the introduction of competition system just focus on the area which lie within the scope of market. It is not just the private department undertaking the public service can be efficient, the key issue is that the providers of public service must be competitive coexistence to substitute monopoly, the selecting power of consumer is crucial for enhancing public servicing efficiency. Competition can exist in not only the market but also the public service area; the government is the special and unique service institution, which can serve the public to meet the expectation.

## ACKNOWLEDGEMENT

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