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# Factors Influence the Service Quality in Hypermarket

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**ABSTRACT: By Importance-Performance Analysis (IPA), this study validates service quality items which should be improved first. Through Kano model, it obtains service quality items of outcome improvement for the hypermarket and shows the demand for service quality to establish operational strategies. This study adopted questionnaire survey and treated the customers of Hypermarket R as the subjects. It distributes 175 questionnaires, including 158 valid ones. Research findings are shown below. According to IPA, "the employees immediately respond to the customers' needs" is the item which should be improved first. Importance is high for the customers; however, the performance is inferior. The hypermarket should improve it as the priority. According to analysis of Kano model, there are five "service quality items of outcome improvement" which increase customer satisfaction and reduce customer dissatisfaction: "the employees immediately respond to the customers' needs", "the employees provide active customer service", "response for the customers' questions", "the employees treat the customers' profits as the priority" and "the employees provide responsible services". The hypermarket can continue the positive service quality of these items to acquire the maximum outcomes.**

**Keywords:** IPA, Kano model, service quality.

## I. INTRODUCTION

In recent years, since the convenience stores are expanded rapidly and due to business competition and increasing online shopping, sales of the hypermarkets decline and the hypermarkets encounter significant challenge of operation. In order to enhance competitiveness to accomplish sustainable operation, hypermarkets should be original, control the needs of different groups of customers and develop satisfying service quality to reinforce old customers' repurchase intention. Thus, how to acquire competitive advantages in the severely competitive environment, upgrade customer satisfaction by strengthening service quality and increase more customers is the current key point of operational strategy of hypermarket.

This study treated the customers of Hypermarket R as subjects, and conducted the analysis by questionnaire survey. Through Kano model, it explored service quality items which highly increase customer satisfaction and reduce customer dissatisfaction and by Importance-Performance Analysis (IPA), and probed into the customers' difference of importance and satisfaction with various service items and recognizes the items which should be first improved. Research purposes are the following: (1) by Kano model, it finds service quality items which highly increase customer satisfaction and reduce customer dissatisfaction; (2) by IPA, it explores service quality items which Hypermarket R should improve first; (3) according to research findings, it proposes the suggestions for Hypermarket R to enhance service quality.

## II. LITERATURE REVIEW

This study analyzes the demand for service quality of Hypermarket R by IPA and Kano model. Literature review includes three parts: service quality, IPA and Kano model.

### *A. Service quality*

Parasuraman *et al.* (1988) argued that since the market changes rapidly, competitiveness relies on efficient outcome of service quality [13]. Service quality refers to the gap between the customers' cognition and expectation [1]. Haywood-Farmer (1998) proposes three dimensions of service quality [4]: (1) Device, process and procedure: location, decoration of the store, size of place and interior design, communication competence in service process and range of service; (2) service personnel's behavior: immediateness and speed of service, communication competence, attitude, friendliness, ready responsiveness, cleanness, politeness, management of complaints and problem solving; (3) service personnel's professional judgment: diagnosis, honesty, reliability, flexibility, discrimination, knowledge and skill. Lovelock and Wirtz (2011) treated service quality as the customers' experience and evaluation in the process of consumption [6]. Parasuraman *et al.* (1988) classified service quality into five dimensions. (1) Reliability: the ability of precisely and reliably practice the service committed; (2) Responsiveness: service personnel's intention and immediateness to provide service; (3) Assurance: attitude, professional knowledge, trust and confidence; (4) Empathy: service personnel's care for individual

customers; (5) Tangibles: physical facilities, devices and service personnel's appearance. According to SERVQUAL proposed [13], this study divides service quality into 5 dimensions. Measurement items are based on questionnaires of Ugboma *et al.* (2007) [14], Mohsin & Ryan (2005) [10], Chung & Chen (2015) [2], Deng & Lee (2007) [3] and Parasuraman *et al.* (1988) [13]and revised according to the business characteristics of hypermarkets.

*B. Importance-Performance Analysis (IPA)*

Martilla and James (1977) introduced IPA to measure Importance and Performance of services of car dealer for the consumers [8]. Magal and Levenbury (2005) argued that IPA is mainly applied to evaluate the subjects' expectation toward the behavior or argument as well as their actual satisfaction [7]. According to Myers (2001), IPA allows the enterprises to measure current positions in the market, operational situations and competitive advantages [11]. IPA first calculates the means of importance and performance of services for the customers and draws them in two-dimensional matrix. In IPA matrix, the two dimension is divided into four quadrants I, II, III and IV [8], as shown in Fig. 1.

Quadrant A - Zone of Concentrate Here: it is highly important for the customers; however, the score of actual perception is low. Thus, the company should improve it.

Quadrant B - Zone of Keep Up the Good Work: Scores of importance and performance are high. It should keep up the good work.

Quadrant C - Zone of Low Priority: it is unimportant for the customers and perceived performance is low. It is the secondary disadvantage of the enterprise.

Quadrant D - Zone of Possible Overkill: It is less important and the score of performance is high. The resource can be applied to the items which require the improvement.

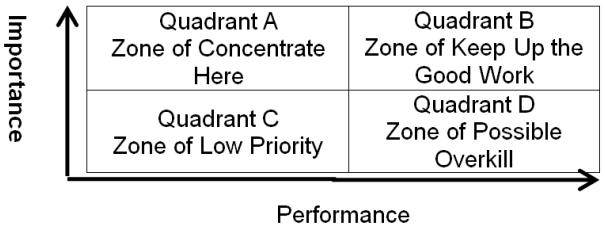


**Fig. 1.** IPA matrix.

*C. Kano model*

Kano (1984) model, by questionnaire survey, explores the customers' cognition of the existence of quality attributes [5]. Matzler and Hinterhuber (1998) modified Kano model and the classification of the revised two-dimensional quality factors is shown in Table 1 [9]. According to Table 1, it shows the category of the quality attributes. Each quality attribute shows cumulative frequency of the category. The highest relative frequency refers to the category of the quality attribute. Matzler and interhuber (1998) introduced "customer satisfaction coefficient" to measure the increased customer satisfaction and reduced customer dissatisfaction when improving certain quality attribute as the criteria to reinforce service quality [9]. The formula of the coefficients is shown below:

C (1): Coefficient to increase customer satisfaction = (A+O)/(A+O+M+I)

C (2): Coefficient to reduce customer dissatisfaction = (O+M)/(A+O+M+I)×(-1)

A: Attractive Quality; O: One-Dimensional Quality; M: Must-Be Quality; I: Indifferent Quality

**Table1: Categories of two-dimensional quality elements of Matzler and Hinterhuber.**

| Negative / Positive | I like it that way | Take it for granted | It does not matter | Can be tolerated | Dislike |
|---|---|---|---|---|---|
| I like it that way | Uncertain | Attractive Quality | Attractive Quality | Attractive Quality | One-Dimensional Quality |
| Take it for granted | Reverse Quality | Indifferent Quality | Indifferent Quality | Indifferent Quality | Must-Be Quality |
| It does not matter | Reverse Quality | Indifferent Quality | Indifferent Quality | Indifferent Quality | Must-Be Quality |
| Can be tolerated | Reverse Quality | Indifferent Quality | Indifferent Quality | Indifferent Quality | Must-Be Quality |
| Dislike | Reverse Quality | Reverse Quality | Reverse Quality | Reverse Quality | Uncertain |

## III. RESEARCH METHOD

Questionnaire structure of this study is based on SERVQUAL proposed by Parasuraman *et al.* (1988). By five dimensions, it analyzes service quality of the hypermarket and develop questionnaire items of service quality. By Kano model, this study explores service quality attributes with outcome improvement which highly increase customer satisfaction and reduce customer dissatisfaction. Through Importance-Performance Analysis (IPA), it finds service quality attributes which should be first improved.

Questionnaires of this study were distributed from July to August, 2020 and the subjects were the customers of the hypermarket. This study retrieved 158 valid questionnaires. Part 1 of the questionnaire: customers' satisfaction and importance with service quality, including (1) responsiveness; (2) tangibles; (3) reliability; (4) empathy; (5) assurance. Part 2: the questionnaire of Kano model, regarding the quality items, the customers can select from five options: "I like it", "it is normal", "no comments", "I can stand it" and "I don't like it".

This study classifies service quality into five dimensions: responsiveness, tangible, reliability, empathy and assurance. The items are the following: (1) Responsiveness: the employees immediately respond to the customers' needs (item 1); the employees provide detailed description (item 2); the employees provide active customer service (item 3). (2) tangible: neat and tidy costumes (item 4); modern professional devices (item 5); clear signs of facilities, circulation and direction (item 6); service facilities meet the customers' needs (item 7). (3) Reliability: response for the customers' questions (item 8); the employees accomplish the commitment to the customers (item 9); the employees accomplish the tasks at once (item 10). (4) Empathy: the employees show individual care for the customers

(item 11); the employees treat the customers' profits as the priority (item 12); the employees recognize individual customers' needs (item 13); the employees recognize the customers' needs and provide related services (item 14). (5) Assurance: the employees respond to the customers' questions with sufficient professional knowledge (item 15); the employees provide responsible services (item 16); prices of goods are indicated specifically (item 17).

Items applied in this study are based on the review of related literatures. Before distributing the questionnaires, this study discussed with the personnel in the industry to validate the meanings of the items and practiced pretest to revise the questionnaire content for the validity. Nunnally (1978) argued that in the exploratory research, reliability at least 0.7 is acceptable; according to Table 2, Cronbach's α of the questionnaire of this study are at least 0.7. It shows the internal consistency of the scale [12].

Scoring of IPA is based on Likert 5-point scale. Satisfaction is scored according to the responses selected by the subjects. "Strongly agree" refers to 5 points, "Agree" is 4 points, "Fair" is 3 points, "Disagree" is 2 points and "Strongly disagree" is 1 point. Importance is scored according to the responses selected by the subjects. "Highly important" refers to 5 points, "important" is 4 points, "Fair" is 3 points, "unimportant" is 2 points, "highly unimportant" is 1 point. When the score is higher, it is more important. As to the scoring of Kano model, the items are based on the existence of service quality items and the options include "I like it", "it is normal", "no comment", "I can stand it" and "I don't like it". It classifies the quality according to different responses.

**Table 2: The Cronbach's α coefficients for all variables in this study.**

| Questionnaire Dimensions | Cronbach's α | |
|---|---|---|
| | Satisfaction | Importance |
| Responsiveness | 0.853 | 0.839 |
| Tangible | 0.821 | 0.805 |
| Reliability | 0.817 | 0.848 |
| Empathy | 0.852 | 0.826 |
| Assurance | 0.839 | 0.843 |

## IV. RESEARCH RESULTS

*A. Importance and satisfaction analysis of service quality*

By IPA, this study probes into the difference of importance and satisfaction with service attributes for the customers to allow the hypermarket to find the priority to improve the services. The measurement is based on a Likert 5-point scale. Importance and satisfaction analysis of service quality is shown in Table 3.

In IPA, Items in Zone of Keep Up the Good Work are item 4, item 5, item 6, item 7, item 8, item 9, item 16 and item 17 which are the advantages.

Items in Zone of Low Priority are item 2, item 3, item 10, item 11, item 12, item 13, item 14, item 15. For the customers, these items, in comparison to others, are less important and customer satisfaction with the performance is lower. They can be the items for secondary improvement. Items in Zone of Concentrate Here refer to item 1. The service is extremely important for the customers and customer satisfaction is lower. The hypermarket should review and improve it.

*B. Service quality items of outcome improvement*

By the formula of "customer satisfaction coefficient" of Matzler and Hinterhuber (1998) [9], this study obtains five "service quality items of outcome improvement" which increase customer satisfaction and reduce customer dissatisfaction (items 1,3,8, 12,16), as shown in Table 4. The hypermarket can keep up the good work of these quality items in order to acquire maximum outcome. In addition, this study conducts two-dimensional quality categorization of service quality items of the hypermarket. 7 items are classified as Attractive Quality and 10 items are One-dimensional Quality, as shown in Table 4.

**Table 3: Importance and satisfaction analysis of service quality.**

| Item | Satisfaction | Importance |
|---|---|---|
| | Average | Average |
| 1. | 3.880 | 4.203 |
| 2. | 3.848 | 4.057 |
| 3. | 3.747 | 3.987 |
| 4. | 3.956 | 4.133 |
| 5. | 3.937 | 4.171 |
| 6. | 3.981 | 4.291 |
| 7. | 3.987 | 4.184 |
| 8. | 3.975 | 4.196 |
| 9. | 3.899 | 4.139 |
| 10. | 3.810 | 4.038 |
| 11. | 3.734 | 3.949 |
| 12. | 3.785 | 4.032 |
| 13. | 3.791 | 3.943 |
| 14. | 3.861 | 4.120 |
| 15. | 3.880 | 4.101 |
| 16. | 4.013 | 4.222 |
| 17. | 4.158 | 4.373 |
| Average | 3.897 | 4.126 |

C (1): Coefficient to increase customer satisfaction = (A+O)/(A+O+M+I)
C (2): Coefficient to reduce customer dissatisfaction = (O+M)/(A+O+M+I)×(-1)
A: Attractive Quality; O: One-Dimensional Quality; M: Must-Be Quality; I: Indifferent Quality; R: Reverse Quality; Q: undetermined
* denotes the absolute value of coefficient >absolute value of mean of overall coefficient

**Table 4: Items to improve service quality.**

| Item | A | O | M | I | R | Q | Category | C(1) | C(2) |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 54 | 66 | 13 | 15 | 1 | 9 | O | *0.811 | *-0.534 |
| 2 | 43 | 72 | 12 | 21 | 2 | 8 | O | 0.777 | *-0.568 |
| 3 | 55 | 67 | 11 | 12 | 2 | 11 | O | *0.841 | *-0.538 |
| 4 | 65 | 37 | 19 | 25 | 2 | 10 | A | 0.699 | -0.384 |
| 5 | 66 | 39 | 17 | 28 | 1 | 7 | A | 0.7 | -0.373 |
| 6 | 41 | 69 | 22 | 20 | 0 | 6 | O | 0.724 | *-0.599 |
| 7 | 65 | 54 | 8 | 22 | 1 | 8 | A | *0.799 | -0.416 |
| 8 | 43 | 74 | 13 | 17 | 2 | 9 | O | *0.796 | *-0.592 |
| 9 | 41 | 78 | 16 | 17 | 1 | 5 | O | 0.783 | *-0.618 |
| 10. | 49 | 68 | 12 | 20 | 2 | 7 | O | 0.785 | *-0.537 |
| 11 | 72 | 48 | 4 | 27 | 1 | 6 | A | *0.795 | -0.344 |
| 12 | 51 | 73 | 7 | 18 | 0 | 9 | O | *0.832 | *-0.537 |
| 13 | 76 | 47 | 4 | 20 | 1 | 10 | A | *0.837 | -0.347 |
| 14 | 68 | 60 | 4 | 19 | 1 | 6 | A | *0.848 | -0.424 |
| 15 | 63 | 55 | 13 | 18 | 1 | 8 | A | *0.792 | -0.456 |
| 16 | 43 | 79 | 12 | 17 | 0 | 7 | O | *0.808 | *-0.603 |
| 17 | 52 | 64 | 11 | 21 | 1 | 9 | O | 0.784 | *-0.507 |
| Average | | | | | | | | 0.789 | -0.493 |

## V. CONCLUSION AND SUGGESTION

This study treats the customers of the hypermarket as subjects. By IPA and Kano model, it respectively obtains "service quality items to be improved first" and "service quality items of outcome improvement" for Hypermarket R to improve service quality and plan operational strategy of future development. According to IPA result, the item in the Zone of Concentrate Here is "the employees immediately respond to the customers' needs" which should be improved first. It is suggested that the hypermarket should reinforce the employees' service attitude and concept as well as their skill training and responsiveness in order to upgrade their competence to immediately respond to the customers' needs.

In addition, this study obtains five "service quality items of outcome improvement" which increase customer satisfaction and reduce customer dissatisfaction: "the employees immediately respond to the customers' needs", "the employees provide active customer service", "response for the customers' questions", "the employees treat the customers' profits as the priority" and "the employees provide responsible services". The hypermarket must keep up the good work of these items in order to acquire maximum outcome.

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