Demands for Service Quality of Optical Shops by Kano Model

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ABSTRACT: The market of optical shops is successively saturated, and the shops must recognize customers' demand in order to allow customers to be satisfied with the quality and attract more customers to increase the profits. According to the analysis of the Kano model, this study realized three items which can highly increase customer satisfaction and highly reduce customer dissatisfaction as follows: employees can accomplish the commitment to customers (Item 9); services and products with quality are provided (Item 16); and specific labels of prices of goods (Item 18). The optical shop can improve these items to enhance customer satisfaction and profits.

KEYWORDS- Optical shop; Kano model; service quality

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I. INTRODUCTION

Since the market of optical shops is successively saturated and the competition is gradually severe, the shops should recognize customers' demands to satisfy customers with their services and attract clients in order to obtain more profits. According to the scale proposed by Parasuraman et al. (1988), this study classified the dimensions of service quality into Responsiveness, Tangible, Reliability, Empathy, and Guarantee. Based on the questionnaires, this study obtained "attributes to improve service quality" which can increase customer satisfaction and reduce customer dissatisfaction. The analytical result allows the optical shop to recognize the improvement priority of service quality to reinforce competitiveness.-****

II. LITERATURE REVIEW

The literature review included two parts: studies of service quality and the Kano two-dimensional quality model.

2.1 Service quality

Tsiotsou (2006) argued that service quality is the customers' general evaluation on advantages, disadvantages, and levels of products. Parasuraman et al. (1988) introduced five dimensions of service quality, including (1) Reliability, (2) Responsiveness, (3) Guarantee, (4) Empathy, and (5) Tangible. Haywood-Farmer (1998) classified service quality below: (1) equipment, process, and procedure; (2) service personnel's behavior; and (3) service personnel's professional judgment. According to Parasuraman et al. (1988), this study divided service quality into five dimensions. The measurement items of service quality were based on the questionnaires of Antony et al. (2004), Mohsin and Ryan (2005), Chung and Chen (2015), Ugboma et al. (2007), and Parasuraman et al. (1988) and revised according to the service characteristics of the optical shop.

2.2 Kano two-dimensional quality model

In Kano two-dimensional quality model, quality items were classified into five categories (Kano et al., 1984), including Attractive Quality Element (A), One-Dimensional Quality Element (O), Must-Be Quality Element (M), Indifferent Quality Element (I), and Reverse Quality Element (R). Kano questionnaire obtains customers' perception with and without quality items through a questionnaire survey. The options of items are "I like it that way", "Take it for granted", "It does not matter", "Can be tolerated", and "Dislike".

Matzler and Hinterhuber (1998) proposed the two-dimensional quality element classification of the revised Kano model, as shown in Table 1. Matzler and Hinterhuber (1998) introduced the customer satisfaction coefficient to recognize the increased and reduced customer satisfaction coefficients to confirm the improvement of certain quality attributes. The formulas of coefficient are shown below:

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

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

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

III. RESEARCH METHOD

In this study, measurement items of service quality are based on questionnaires of Antony et al. (2004), Mohsin and Ryan (2005), Chung and Chen (2015), Ugboma et al. (2007), and Parasuraman et al. (1988) and revised according to business characteristics of the optical shop. Subjects of this study were customers of the concerned optical shop. From December 1 to 31, 2021, a total of 46 questionnaires were retrieved. The variables of measurement are the following. (1) Responsiveness: Employees can immediately respond to the customers' demand (Item 1); employees provide descriptions in detail (Item 2); and employees are willing to provide assistance and service for the customers (Item 3). (2) Tangible: Employees show neat and tidy costume and appearance (Item 4); there are interior modern and professional equipment (Item 5); interior circulation of facilities and guidance signs are clear (Item 6); and service facilities meet the customers' needs (Item 7). (3) Reliability: Employees can make efforts to solve the customers' problems (Item 8); employees can accomplish the commitment to customers (Item 9); and employees can accomplish the tasks at once (Item 10). (4) Empathy: Employees are actively and individually concerned about the customers (Item 11); employees treat the customers' benefits as the priority (Item 12); employees recognize individual customers' needs (Item 13); and in the workplace, employees recognize customers' needs and provide the related services (Item 14). (5) Guarantee: Employees can respond to customers' questions with professional knowledge (Item 15); services and products with quality are provided (Item 16); employees can provide responsible service (Item 17); and specific labels of prices of goods (Item 18).

IV. RESEARCH RESULTS

This study adopted the classification of two-dimensional quality elements and the formula of "customer satisfaction coefficient" proposed by Matzler and Hinterhuber (1998) to recognize three items for the improvement of service quality, which could increase customer satisfaction and reduce customer dissatisfaction (see Table 2). The shop can maintain service quality based on these items. In addition, this study categorized two-dimensional quality of service quality items of optical shops. Among them, 15 items were classified as Attractive Quality, and 3 items were One-Dimensional Quality (see Table 2). The items which highly increased customer satisfaction and highly reduced customer dissatisfaction are "employees can accomplish the commitment to customers" (Item 9); "services and products with quality are provided" (Item 16), and "specific labels of prices of goods" (Item 18). The analytical result allows the subject optical shop to recognize the improvement priority of service quality and reinforce business competitiveness.

V. CONCLUSION

This study treated customers of Optical Shop H as subjects. By the Kano two-dimensional quality model, it recognized service quality items of improvement as a reference for the shop to improve service quality and construct operational strategies for future development. This study realized that the following 3 items can highly increase customer satisfaction and highly reduce customer dissatisfaction: "employees can accomplish the commitment to customers" (Item 9); "services and products with quality are provided" (Item 16); and "specific labels of prices of goods" (Item 18). The optical shop can make improvements on these items to enhance customer satisfaction and profits.

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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	Take it for granted Reverse Quality		Indifferent Quality	Indifferent Quality	Must-Be Quality
It does not matter	It does not matter Reverse Quality		Indifferent Quality	Indifferent Quality	Must-Be Quality
Can be tolerated	Can be tolerated Reverse Quality		Indifferent Quality	Indifferent Quality	Must-Be Quality
Dislike Reverse Quality		Reverse Quality	Reverse Quality	Reverse Quality	Uncertain

Table2: Categorization of Kano two-dimensional quality and customer satisfaction coefficients

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Item	A	О	M	I	R	Q	Category	C(1)	C(2)
1	22	14	2	6	0	2	A	0.818	-0.364
2	23	14	2	5	0	2	A	*0.841	-0.364
3	26	12	3	3	0	2	A	* 0.864	-0.341
4	17	15	3	9	0	2	A	0.727	*-0.409
5	26	9	2	6	1	2	A	0.814	-0.256
6	14	16	7	7	0	2	О	0.682	* -0.523
7	24	14	1	5	0	2	A	*0.864	-0.341
8	18	17	3	5	0	3	A	0.814	* -0.465
9	15	23	2	4	0	2	О	*0.864	* -0.568
10	25	11	2	5	1	2	A	0.837	-0.302
11	28	10	0	6	0	2	A	*0.863	-0.227
12	26	12	1	5	0	2	A	*0.864	-0.295
13	31	9	1	4	0	1	A	*0.889	-0.222
14	25	13	2	4	0	2	A	*0.864	-0.341
15	26	13	1	4	0	2	A	*0.886	-0.318
16	21	17	0	5	0	3	A	*0.884	*-0.395
17	24	14	2	5	0	1	A	*0.844	-0.356
18	18	22	1	4	0	1	О	*0.889	* -0.511
U.				•		7	Total average	0.839	0.367

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

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R: Reverse Quality; Q: uncertain; C (1): Coefficient to increase customer satisfaction;

C (2): Coefficient to reduce customer dissatisfaction.

^{*} denotes the absolute value of coefficient > absolute value of mean of overall coefficient