Investigation of Quality Demand in the Mobile Game

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Abstract: *The mobile game market is gradually saturated and the competition is becoming increasingly fierce. Operators need to provide their own original services and make customers satisfied with the quality of their service in order to get better operating revenue. This study took the customers of H mobile game manufacturer as the research subjects to explore the plan of quality improvement and help the operators to improve service quality. In this study, the Kano model was adopted to find six items that can highly increase customer satisfaction and reduce customer dissatisfaction. More specifically, these six items are actually fulfilling the promise to customers, being able to provide reliable service, prioritizing the customer's interests, safeguarding the privacy of customer conversations, being able to provide responsible services, and services that can build customer trust. Manufacturers must pay attention to these items and continue to maintain good service quality.*
Keywords: *mobile game, Kano model, service quality*

I. Introduction

With the increasing competition in the mobile game market, operators need to grasp the preferences of customers and make them satisfied with the service quality in order to attract more customers for consumption. This study was based on the five dimensions proposed by Parasuraman et al. (1988). By using the statistical analysis data of the questionnaire, this study tried to identify the service quality attributes for benefit improvement which can increase customer satisfaction and reduce customer dissatisfaction at the same time. The results of this analysis may assist mobile game manufacturers to find the priority of service quality improvement and improve business performance.

II. Literature Review

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

2.1 Service Quality

Sureshchandar et al. (2002) pointed out that service quality is the subjective cognition generated by consumers in the process of receiving services. Wakefield (2001) indicated that service quality is the difference between the expectation of the service and the actual service received. Parasuraman et al. (1988) considered that service quality covers five dimensions including (1) reliability, (2) responsiveness, (3) guarantee, (4) empathy, and (5) tangible. The measurement of service quality was divided into five dimensions in this study based on the proposal of Parasuraman et al. (1988).

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). Matzler and Hinterhuber (1998) proposed a modified two-dimensional quality factor classification table for the Kano model. Matzler and Hinterhuber (1998) proposed the "customer satisfaction coefficient", which is calculated with the formulas as follows:

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

I: Indifferent Quality

III. Research Method

The quality measurement items were modified according to the characteristics of the mobile game market based on the questionnaires of Ugboma et al. (2007) and Parasuraman et al. (1988). The research subjects of this study were the customers of H mobile game manufacturer and 50 questionnaires were distributed between January and February 2022. The variables measured included: (1) Responsiveness: The contents are that customer service staff can respond quickly to customer needs (Item 1); they do not neglect to respond to customers when busy (Item 2); providing detailed job descriptions (Item 3); the speed of problem handling (Item 4). (2) Tangible: The contents include game smoothness (Item 5); game music (Item 6); game background story (Item 7); game store content (Item 8). (3) Reliability: The contents include trying to help customers to solve problems (Item 9); actually fulfilling the promise to customers (Item 10); being able to solve problems at once (Item 11); being able to provide reliable service (Item 12). (4) Empathy: This includes taking the initiative to provide individual attention to the customer (Item 13); prioritizing the customer's interests (Item 14); focusing on follow-up after the problem is over (Item 15); understanding the customer's needs (Item 16). (5) Guarantee: This includes having enough expertise to respond to customer issues (Item 17); safeguarding the privacy of customer conversations (Item 18); being able to provide responsible service (Item 19); service that builds customer trust (Item 20).

IV. Research Results

This study identified six service quality items for benefit improvement which could increase customer satisfaction and reduce customer dissatisfaction simultaneously (as shown in Table 1), which were Item 10, Item 12, Item 14, Item 18, Item 19, and Item 20. Among the items on the questionnaire, 17 of them were classified as One-Dimensional Quality, and 3 were Attractive Quality.

V. Conclusion

In this study, the customers of H mobile game manufacturers were taken as the research subjects, and the Kano two-dimensional quality model was used to find the service quality items for benefit improvement. The findings can be used as a reference for operators to develop business strategies. This study found six service quality items for benefit improvement which could increase customer satisfaction and reduce customer dissatisfaction simultaneously (including Items 10, 12, 14, 18, 19, and 20). The results of this analysis can help mobile game manufacturers to identify the priority of service quality improvement and then enhance the overall competitiveness of enterprises.

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Table1: Two-dimensional quality elements categories of Kano model

Item	A	O	M	I	R	Q	歸類	C(1)	C(2)
1	17	20	6	6	0	1	O	※0.76	-0.53
2	19	14	6	9	1	1	A	0.69	-0.42
3	15	17	8	9	0	1	O	0.65	-0.51
4	19	23	3	5	0	0	O	※0.84	-0.52
5	6	29	12	3	0	0	O	0.70	※-0.82
6	13	21	4	11	0	1	O	0.69	-0.51
7	13	16	3	16	2	0	O	0.60	-0.40
8	10	21	4	15	0	0	O	0.62	-0.50
9	10	26	9	5	0	0	O	0.72	※-0.70
10	9	27	9	4	0	1	O	※0.73	※-0.73
11	24	16	5	3	1	1	A	※0.83	-0.44
12	12	24	5	7	0	2	O	※0.75	※-0.60
13	19	10	3	15	1	2	A	0.62	-0.28
14	13	26	5	6	0	0	O	※0.78	※-0.62
15	14	22	7	7	0	0	O	0.72	※-0.58
16	17	20	5	8	0	0	O	※0.74	-0.50
17	14	19	12	5	0	0	O	0.66	※-0.62
18	3	34	11	2	0	0	O	※0.74	※-0.90
19	13	26	7	4	0	0	O	※0.78	※-0.66
20	14	27	5	4	0	0	O	※0.82	※-0.64
Total average								0.72	-0.57

Note: A: Attractive Quality; O: One-Dimensional Quality; M: Must-Be Quality; I: Indifferent Quality; R: Reverse Quality; Q: uncertain;

C (1): Increased customer satisfaction coefficient; C (2): reduced customer dissatisfaction coefficient.

* denotes absolute value of coefficient > absolute value of mean of total coefficient

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