A Study on the Consulting Service Quality using Kano Model

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Abstract

Objectives: This study was carried out to rearrange and identify the characteristics of the quality elements of Consulting Service and aims to reinforce the competitive advantage after analyzing and improving it. Methods/Statistical Analysis: As for the study method, the consulting service quality elements were arranged by theoretical consideration, adapted Kano model for each service quality factors, and classified them into quality element categories such as Attractive, Must-be, One dimensional, Indifferent and Reverse quality elements. Also, as for the influence of customer satisfaction and dissatisfaction, CS-Coefficient (Customer Satisfaction Coefficient) was utilized to verify the result. Findings: This study reorganized the quality scale based on existing studies regarding consulting service quality, and classified the quality element scales defined by Kano model. In order to find quality awareness element for the competitive creation among the consulting service quality elements, the study adopted Kano model to see how to access to consulting service strategically as follows. First, among the 28 measurement items for the 6-scale elements, there were 3 attractive, 1 must-be, 1 questionable and 23 one-dimensional quality elements, and there were no reverse and indifferent quality elements. Second, the "E-1 (Consultant's individual interest to customer)" was One-dimensional quality element in Kano analysis, but in Timko's CS-Coefficient analysis, it was attractive quality element. Third, based on the fact that "E-1(Consultant's individual interest to customer)" and "R-5 (Securing customer information and company secret)" belongs to attractive quality element, the consulting workers will be able to utilize it as useful information in strategically decision making when improving the service competitiveness. Improvements/Applications: Distinguishing whether or not the subject group has the consulting service experience to examine the group difference is proposed for the future study.

Keywords: Consulting Service quality, Kano model, Timko's CS-coefficient, Quality elements, Consulting service competitiveness

1. Introduction

The management consulting in Korea started in the 1980s and numerous medium-sized management consulting companies were founded during the 1990s, but most of the small sized consulting companies disappeared in the early 1998 due to IMF financial crisis. In the rapidly changing modern society, it is essential for consulting companies to put effort into increasing the service quality which the customers would satisfy by estimating the consulting service quality for the improvement of consulting quality¹. Due to the situation in customers' point of view, the service enhancement of consulting company and consultant's is a significant factor. The competitiveness of consulting is basically based on the customer satisfaction toward service, and only by searching for the needs of customer consistently and making them satisfied, the company will have the competitive power. It is very important to correctly understand the demand and value of customer. The existing studies were mostly about examining service

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quality, but this study rearranged consulting service quality element and studied the properties of each quality elements. As for the study method, the consulting service quality elements were arranged by theoretical consideration, adapted Kano model² for each service quality factors, and classified them into quality element categories such as Attractive, Must-be, One dimensional, Indifferent and Reverse quality elements. Also, as for the influence of customer satisfaction and dissatisfaction, CS-Coefficient (Customer Satisfaction Coefficient) was utilized to verify the result. The goal of this study is to understand predominant competitive power of consulting company and consultants based on the distinguished quality properties through Kano model, and draw out the improvement factor and threatening factor to apply it to strategically decision making.

1.1 Service Quality

The subjective measurement acknowledged by individual is reflected to the service quality rather than objective measurement. However, the service quality is a measurement by customer, and the researchers commonly perceive that not only the result of measurement but also the whole process of service conducts successive action. There are differences in concept about the service quality for each researcher, and regarding the service quality, Garvin (1984), Ghobadian and Simon (1994) and others defined the service quality in 5 perspectives: Transcendent Product-based approach, approach, User-based approach, Manufacturing-based approach and Valuebased approach³. Due to the intangible property of service, it is rather difficult to define and estimate the level of service quality objectively, but generally the service quality is divided into actual service quality and acknowledged service quality which the acknowledge service quality based on the customer evaluation rather than the actual service quality has more significance⁴. The most common measurement model is SERVQUAL model by PZB⁵. They defined service quality as the examination expectation of customer toward service and the difference of acknowledgement after the service, and developed it into SERVQUAL model which is composed of 5 scales as seen in Table 1.

Table 1.	5 Scales of service q	uality in SERVQUAL model
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	Scale	Definition
1	Reliability	Ability to accurately provide and let
2	Confidence	customer trust the promised service. Ability to provide knowledge, sincerity,
		trust of service provider.
3	Materiality	Appearances such as materialized
		facility, equipment, personnel and
		communication tool.
4	Appreciation	Ability to provide individual interest and
		affection to customer.
5	Responsiveness	Ability to willingly help customer and
		provide immediate service.

PZB (1988). SERVQUAL: A Multiple- Item Scale for Measuring Consumer Perception of Service Quality. Journal of Retailing, 64(1), pp. 16-17.

However, the SERVPERF model⁶ which indicated limits of SERVQUAL model, and only measuring "the service performance" excluding "expected service quality" was proposed as the new alternative for service quality measurement model. In⁷ developed SURVPERF model only measuring the performance and weighted SERVPERF which adapted performance item priority and argued only by measuring the level of quality with performance item is more sufficient than other measurement item. Meanwhile, Korean Standard-Service Quality Index (KS-SQI) was jointly developed by Korean Standards Association and Seoul National University Business Lab to measure service quality reflecting the service industry of Korea and characteristics of Korean customers, which is currently used to measure service quality of 61 business types of general service industry, 7 division of public administrative service industry⁸.

2. Research Trend of Consulting Service Quality

The study by⁹ developed 8-element items for business consulting service quality. The 8 elements are ethicality, reliability, responsiveness, confidence, appreciation, voluntary participation, communication and fame. The concept of reliability, responsiveness and appreciation is equal to one is SERVQUAL. Ethicality refers to how ethical the business consulting provider is to the customer in the service provision process. Voluntary participation refers to how much the consultant lead the participation of customer in the consulting process. The communication refers to communication between customer and business consulting provider, and the fame is the significant condition for the measurement of service quality to primary customer, and for the repeated customer, it gives confidence to customers by reassuring the quality. In¹ constituted the business consulting service quality by professionalism, reliability, appreciation, and materiality. They supplemented professionalism rather than confidence in 5 scales of SERVQUAL, and removed responsiveness. In¹⁰ constituted 6-scale service quality for IT consulting with 4 scales from SERVQUAL, reliability, responsiveness, guarantee and appreciation with extra processing and education elements. In¹¹ constituted 7 quality decision elements with 5 elements of SERVPERF, reliability, confidence, materiality, appreciation and responsiveness and extra 2 elements, the consultant leadership and consultant educational competence. In¹² measured the consulting quality variables by consulting conduct quality, consulting support quality, consulting result quality. The consulting conduct quality measured customer satisfaction to competence of consultant, and the consulting support quality defines the satisfaction toward policy relevant to the business. Last but not least, the consulting result quality measured the satisfaction toward the accomplished result of consulting. When putting together the existing studies, there are differences between the quality characteristics in accordance with consulting type, and most of them utilized the quality scales provided in SERVQUAL. This study aims to verify the attractive quality attribute using the Kano model subjecting the consulting service quality attributes.

3. Kano Model

Kano model is the customer satisfaction model developed in a product planning theory relevant to product development in the 1980s by Professor Noriaki Kano of Rika University in Japan. Professor Kano provided two dimensional quality element measurement models which show satisfaction/dissatisfaction to the objective performance of product and subjective acknowledgement of user in order to surpass the limit of one dimensional quality element measurement by checking satisfaction/ dissatisfaction by customer demand show in Figure 1.



Figure 1. Quality attributes of Kano model.

In² classifies service quality attributes into 5 categories in the Kano model, the major quality attributes which are attractive quality, one dimensional quality, mustbe quality and the potential quality attributes which are indifferent quality and reverse quality.

3.1 Indifferent Quality Element

The indifferent quality element indicates to service quality element irrelevant to customer satisfaction when not satisfying the customer's expectation. When marketing manager fail to understand the customer needs and utilize the indifferent quality element to the concept of new product or major message of marketing communication, it is very like to fail in the market.

3.2 Reverse Quality Element

The reverse quality element refers to the element which the satisfaction of customer expectation and satisfaction works in reversed way. In other words, even though the service provider put ones effort to the increase expectation satisfaction, the customer sometime could feel the result dissatisfying. This occurs because not all the customers have same taste.

3.3 One-Dimensional Quality Element

One-dimensional quality element is the one always required by customers such as the basic performance and design of product due which shows the better the service is, the higher the satisfaction is, and the worse the service is, the lower the satisfaction is.

3.4 Must-be Quality Element

The must-be quality element is the element which makes customers not satisfied when the demand

is met because it is the must-be basic service, and makes customer feel dissatisfied when not meeting the demand. When this element is not met, the customer complaint of dissatisfaction can increase, so must be cautious.

3.5 Attractive Quality Element

The attractive quality element increases the satisfaction when the expectation is met, while even when the expectation is not met, there's almost no dissatisfaction. This element is the important element which gives exceeding satisfaction to customers with special surprise events, to be the source of customer impression and competitiveness of rival company.

4. Proposed Work

4.1 Selecting Consulting Service Measurement Elements

The consulting service quality factors were added such as the leadership of consultants and educational competence based on the basic model of SERVQUAL as shown in Table 2.

4.2 Survey Composition and Data Processing Method

The subject group of this study is the graduate school students in doctor's course and consultants. Among 140 surveys distributed, 108 copies were collected. Excluding 18 with insincere copies, 90 surveys were used

 Table 2.
 Consulting service quality measurement elements

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Researcher	Measurement elements	Note
9	Ethicality, reliability, responsiveness, confidence, appreciation, voluntary	SERVQUAL and more
	participation, communication, fame	
1	Professionalism, reliability, appreciation, materiality	Exclude "Confidence" from
		SERVQUAL
10	Reliability, reponsiveness, confidence, appreciaition, processing, education	4 scales from SERVQUAL
11	Reliability, confidence, materiality, appreciation and responsiveness, consultant	SERVQUAL and more
	leadership, consultant educational competence	
13	Materiality, reliability, responsiveness, confidence, appreciation	SERVQUAL
14	Materiality, reliability, responsiveness, confidence, appreciation	SERVQUAL

Table 3. Consulting service quality measurement details

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Scale	ID	Details					
Materiality	T-1	Provide fine data and material appropriate for consulting					
	T-2	Proper attire and appearance of consultant					
	T-3	Sincerity and kindness of consultant					
	T-4	Fine personal impression of consultant					
Reliability	R-1	Consulting company processing work in promised time					
	R-2	Have interest and solve the customer service.					
	R-3	Frust and depend on consulting company					
	R-4	rovide service within time.					
	R-5	ecure customer information or company secret					
Responsiveness	RE-1	Notify when the process will be done.					
1	RE-2	Provide immediate service					
	RE-3	Consultant helps customer spontaneously at anytime					
	RE-4	Immediate response to customer demand					
	RE-5	Explain the work process anytime					
Confidence A-1		Trust consultant					
	A-2	Consultant fully understands the customer demand					
	A-3	Consultant who is polite and humble					
	A-4	Consultant with full knowledge to answer to customer question.					
	A-5	Confidence of consulting company in managing stable project					
Appreciation	E-1	Consultant who has individual interest to customers					
	E-2	Consultant who make appointment convenient to customer					
	E-3	Employee of consulting company caring customer individually					
	E-4	Consulting company sincerely caring customer benefit.					
	E-5	Employee of consulting company understanding customer demand					
Others	ET-1	Consultant professionalism					
	ET-2	Consultant education competence					
	ET-3	Consultant morality					
	ET-4	Consultant reputation					

Dissatisfaction		Response to negative question						
		Like	Reasonable	Feel	No other	Dislike		
Satisfaction				nothing	way			
Response	Like	Q	A	А	А	0		
to positive	Reasonable	R	Ι	Ι	Ι	М		
question	Feel nothing	R	Ι	Ι	Ι	М		
	No other way	R	Ι	Ι	Ι	М		
	Dislike	R	R	R	R	Q		

Table 4.Kano measurement Table

A: Attractive(Attractive Quality Element) O: one-dimensional (one-dimensional Quality Element) M: must-be(must-b Quality Element) I: indifferent(Indifferent Quality Element) R: reverse(reverse Quality Element) Q: questionable result(questionable result Quality Element)

to the survey analysis. Kano survey restructured the sub elements of measurement element of researchers in Table 2. With 24 details in 5 scales and extra 4 elements there was overall 28 Kano survey details as seen in Table 3.

The quality element of collected survey is classified into each frequency of quality element using Kano measurement table as Table 4.

4.3 Characteristics of Respondent

The characteristic of respondent is described in Table 5. As for gender, male (90.0%) was larger than female (10.0%), as for age, 40s (40.0%) was the largest, and 50s (36.7%), 30s (20.0%) followed. As for the business type the order was from office job (63.3%), others (16.7%), research jobs (13.3%) and self-employment (6.7%), and the one with consulting experience (86.7%) was larger than the one who has no experience (13.3%).

Characteristics	6	Frequency	%
Gender	Male	81	90.0
	Female	9	10.0
Age	20s	3	3.3
	30s	18	20.0
	40s	36	40.0
	50s	33	36.7
Academic	college graduate	18	20.0
ability	graduate school graduate	72	80.0
Business type	office job	57	63.3
	research job	12	13.3
	self-employment	6	6.7
	others	15	16.7
Consulting	yes	78	86.7
experience	no	12	13.3

 Table 5.
 General characteristics of study subject

4.4 Kano Quality Element Classifications

The consulting service quality elements were classified as in Table 6 by Kano model quality element measurement table. When looking into the analysis result, among overall 288 details, there were 1 Must-be quality, 1 Questionable results, 3 Attractive quality, and rest of 23 were One-dimensional quality element. In other words, the service item about "securing customer information or company secret" is recognized as Must-be quality element, and "convenient use of customer", "consultant's individual interest to customer", "consultant reputation" were classified as Attractive quality element.

4.5 Timko's Customer Satisfaction Coefficient

Due to the fact that Kano analysis only uses the frequency mode to classify the data, it is unable to distinguish the differences of relative quality element to same service. CS-coefficient of Timko's is a coefficient which shows how much the customer satisfaction and dissatisfaction influences from the provided service, which when the satisfaction is high, it is "+1" and when the dissatisfaction is high, it is close to "-1". By using Kano survey, the coefficient for customer satisfaction/dissatisfaction was calculated just like Figure 2, and it shows the degree of influence.

According to this classification, as for the "A-1 (provide fine data and material)", it is one-dimensional element in Kano classification, while it is the most close service to "+1" and "-1" in Timko's coefficient, which means it has the largest influence in satisfaction/dissatisfaction, and therefore the most basic element. As a while, the "E-1 (Consultant's individual interest to customer)" shows lower dissatisfaction coefficient, but when increasing the satisfaction by giving more interest, it can be the origin of stronger competence to rival business, so this element needs significant looking. As for that "E-2 (Set appointment convenient for customer)" is the attractive quality element, but the satisfaction coefficient was

Details		Α	М	0	R	Q	Ι	Category
T-1	Provide fine data and material appropriate for consulting	12	27	42	0	6	3	one-dimensional
T-2	Proper attire and appearance of consultant	3	9	39	24	9	6	one-dimensional
T-3	Sincerity and kindness of consultant	3	27	60	0	0	0	one-dimensional
T-4	Fine personal impression of consultant	30	12	36	0	3	9	one-dimensional
R-1	Consulting company processing work in promised time	9	36	42	0	0	3	one-dimensional
R-2	Have interest and solve the customer service.	9	27	54	0	0	0	one-dimensional
R-3	Trust and depend on consulting company	12	12	24	0	33	9	questionable
R-4	Provide service within time.	6	0	36	33	3	12	one-dimensional
R-5	Secure customer information or company secret	3	45	33	0	9	0	must-be
RE-1	Notify when the process will be done	9	27	45	0	0	9	one-dimensional
RE-2	Provide immediate service	27	15	42	0	0	6	one-dimensional
RE-3	Consultant helps customer spontaneously at anytime	30	12	45	0	0	3	one-dimensional
RE-4	Immediate response to customer demand	12	24	51	0	0	3	one-dimensional
RE-5	Explain the work process anytime	30	9	42	0	0	9	one-dimensional
A-1	Trust consultant	9	3	69	3	3	3	one-dimensional
A-2	Consultant fully understands the customer demand	6	30	54	0	0	0	one-dimensional
A-3	Consultant who is polite and humble	6	24	51	6	0	3	one-dimensional
A-4	Consultant with full knowledge to answer to customer question.	3	30	51	0	0	6	one-dimensional
A-5	Confidence of consulting company in managing stable project	6	30	45	3	0	6	one-dimensional
E-1	Consultant who has individual interest to customers	27	6	36	0	0	21	one-dimensional
E-2	Consultant who make appointment convenient to customer	32	18	28	0	0	12	Attractive
E-3	Employee of consulting company caring customer individually	48	0	36	0	0	6	Attractive
E-4	Consulting company sincerely caring customer benefit.	30	6	48	0	0	6	one-dimensional
E-5	Employee of consulting company understanding customer demand	18	9	51	0	0	12	one-dimensional
ET-1	Consultant professionalism	18	30	39	0	0	3	one-dimensional
ET-2	Consultant education competence	18	18	42	0	0	12	one-dimensional
ET-3	Consultant morality	0	24	57	3	0	6	one-dimensional
ET-4	Consultant reputation	48	3	18	0	0	21	Attractive

Table 6. Kano Quality element classification

not highly relevant. Also, "R-5 (securing customer information and company secret)" is a quality element which will increase customer dissatisfaction when not managed to the value close to "-1".





5. Conclusion

This study reorganized the quality scale based on existing studies regarding consulting service quality, and classified the quality element scales defined by Kano model. In order to find quality awareness element for the competitiveness creation among the consulting service quality elements, the study adopted Kano model to see how to access to consulting service strategically. And the result is as follows.

First, among the 28 measurement items for the 6-scale elements, there were 3 attractive quality elements, 1 must-be quality element, and 24 one-dimensional quality elements, and there were no reverse and indifferent quality elements.

Second, the "E-1(Consultant's individual interest to customer)" was one-dimensional quality element in Kano analysis, but in Timko's CS-coefficient analysis, it was attractive quality element.

Third, based on the fact that "E-1(Consultant's individual interest to customer)" and "R-5(Securing customer information and company secret)" belongs to attractive quality element, the consulting workers will be able to utilize it as useful information in strategically decision making when improving the service competitiveness.

Despite the positive study result, the limitation of this study is that there are subjects who did not directly experience the consulting service among the study subject. Thus, distinguishing the whether or not the subject group has the consulting service experience to examine the group difference is proposed for the future study. Also, there could be lack of understanding in Kano model survey due to questioning in pair wise comparison question of positive and negative, it is worth considering to improving the respondent's understanding toward survey by conducting prior education to respondents in the future study.

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