Measuring the Service Quality of Community Development Associations Using Importance-Performance Analysis

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Abstract : *A community development association (CDA) has been established in every village or neighborhood in Taiwan. The purpose of CDAs is to enhance residents' living quality. The services provided by CDAs should fulfill and even exceed residents' expectations, and the performance of these services should be approved by the residents. When their expectations are not met, residents become dissatisfied with the services provided and eventually lose their community identity. Thus, based on a SERVQUAL questionnaire developed in this study, we used the importance-performance analysis (IPA) method to investigate the service quality of CDAs. The findings of this study can be used to improve and enhance the service quality of CDAs.*
Keywords - *Community Development Association, Service, Performance, Important-Performance Analysis*

I. INTRODUCTION

The services provided by community development associations (CDAs) include tangible activities, facilities, and intangible concern, with the purpose of enhancing residents' quality of life [1-4]. However, in the course of serving residents, the cognitive gap between CDAs and the residents, or the ineffective execution of services by CDAs causes dissatisfaction and opposition among the residents [4-6]. Thus, the development of methods for improving and enhancing service quality to achieve residents' approval is crucial for CDAs.

We modified the SERVQUAL questionnaire proposed by Parasuraman, Zeithmal, and Berry [7-10] to produce a scale suitable for measuring the service attributes of CDAs (Table 1). Subsequently, we conducted importance-performance analysis (IPA) [11-13] to measure service quality [14-16]. The results of this study can be used to improve and enhance the service quality of CDAs.

Table 1: The questionnaire structure

Dimension	Items	
Empathy	1.	The association values resident welfare
	2.	The association shows concern for low-income households and offers subsidies
	3.	Activities arranged by the association meet resident demands
	4.	Activities arranged by the association enhance emotional communication among residents
Responsiveness	5.	The community has various means of announcing messages (e.g., bulletin boards, websites, and broadcasts)
	6.	The association positively assists residents in need
	7.	Association staff and volunteers gladly assist residents
	8.	Association staff and volunteers maintain polite attitudes when providing services to residents
Tangibility	9.	The environmental protection volunteers periodically clean and sanitize the community area, providing a comfortable, pleasant, and hygienic living environment
	10.	Neighborhood watch members patrol the community area at night, ensuring a peaceful and safe living environment
	11.	The association arranges lectures, lessons, and trips to enrich residents' cultural and leisure lifestyles
	12.	The association provides dance lessons to encourage women to get involved in community activities
	13.	The association organizes morning gatherings to promote national exercise and enhance health
Reliability	14.	The communities leisure facilities satisfy residents' demands
	15.	The community has installed a monitoring system to further protect residents' assets
	16.	The community has installed a broadcast system to instantly broadcast various messages
Assurance	17.	The association staff demonstrate professionalism
	18.	The image and reputation of the association is excellent and credible to the residents
	19.	The association integrates private companies, societies, and government resources to promote community work
	20.	In your opinion, how important is the CDA for the promotion of community work?

II.   IMPORTANCE-PERFORMANCE ANALYSIS

IPA is a measurement method that incorporates consumer-perceived importance and performance, and subsequently prioritizes the related attributes of services in sequential order [17, 18]. IPA is an effective method for improving service quality, and is widely applied in a number of different fields. The procedural steps of IPA are as follows [19-23]:

- List the various attributes for leisure-based activities and services, and subsequently develop a questionnaire.
- The participants evaluate and rate the listed attributes according to "Importance" and "Performance".
- Using "Importance" as the horizontal axis and "Performance" as the vertical axis, plot the various attributes into a 2D matrix.
- Using the midpoint or average value as the point of separation, divide the matrix into four quadrants (Figure 1).
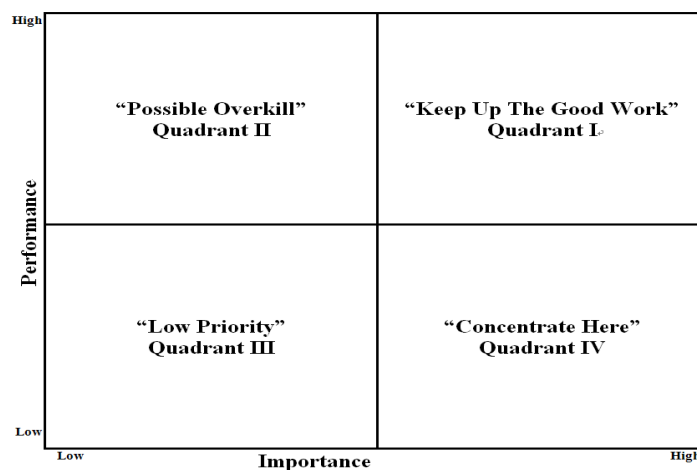

Figure 1. Importance-Performance Analysis

Deng et al. [24]: "Attributes located in Quadrant I (both performance and importance are high) indicate opportunities for achieving or maintaining competitive advantage and are major strengths. The management scheme for this quadrant is 'keep up the good work'. Attributes located in Quadrant II (performance is high and importance is low) indicate that business resources committed to these attributes would be overkill and should be deployed elsewhere. These attributes are minor strengths. The management scheme for this quadrant is 'possible overkill'. Attributes in Quadrant III (performance and importance are low) are minor weaknesses and do not require additional effort. The management scheme for this quadrant is 'low priority'. Attributes located in Quadrant IV (performance is low and importance is high) require immediate attention for improvement and are major weaknesses. The management scheme for this quadrant is 'concentrate here'. The inability to identify these attributes can threaten a firm's place in the market and typically results in low consumer satisfaction."

III.   INVESTIGATION RESULTS AND ANALYSIS

A questionnaire survey was employed to measure the service quality of CDAs. The questionnaire was divided into "importance" and "satisfaction," and a 5-point Likert scale was used for the scaling system. A CDA in New Taipei City was selected as the research subject. A total of 455 questionnaires were distributed, and 255 valid questionnaires were recovered. Based on the reliability analysis results, Cronbach's α values for the questionnaire ranged between 0.8003 and 0.8913 (Table 2). This suggests that the scoring system adopted for scaling possessed a high level of reliability.

Table 2. Reliability analysis results

Dimension	Cronbach's α	
	Importance	Satisfaction
Empathy	0.8295	0.8913
Responsiveness	0.8425	0.8439
Tangibility	0.8337	0.8675
Reliability	0.8562	0.8003
Assurance	0.8708	0.8855

The "Importance" and "Satisfaction" results for the various items are tabulated in Table 3, and the IPA results are shown in Figs. 2 and 3. As shown in Figure 2, using a score of 3 in the 5-point Likert scale system as the point of separation for the quadrants, 20 items were distributed in Quadrant I. This suggests that residents exhibited high perceptions regarding the importance and performance of the services provided by the CDA.

Table 3. Investigatory results for importance and satisfaction

Item number*	Mean		Standard Deviation	
	Importance	Satisfaction	Importance	Satisfaction
1	3.79	3.40	0.61	0.55
2	3.71	3.68	0.54	0.51
3	3.61	3.41	0.44	0.45
4	3.68	3.51	0.61	0.57
5	3.79	3.55	0.64	0.67
6	3.91	3.32	0.78	0.54
7	3.56	3.47	0.70	0.43
8	3.71	3.59	0.69	0.53
9	3.84	3.75	0.61	0.52
10	4.02	3.75	0.55	0.68
11	3.76	3.68	0.44	0.70
12	3.35	3.39	0.45	0.69
13	3.46	3.57	0.51	0.63
14	3.72	3.67	0.46	0.53
15	3.48	3.66	0.43	0.46
16	4.31	3.58	0.41	0.79
17	4.35	3.56	0.52	0.70
18	3.75	3.44	0.40	0.41
19	3.65	3.49	0.63	0.65
20	4.01	3.65	0.75	0.67

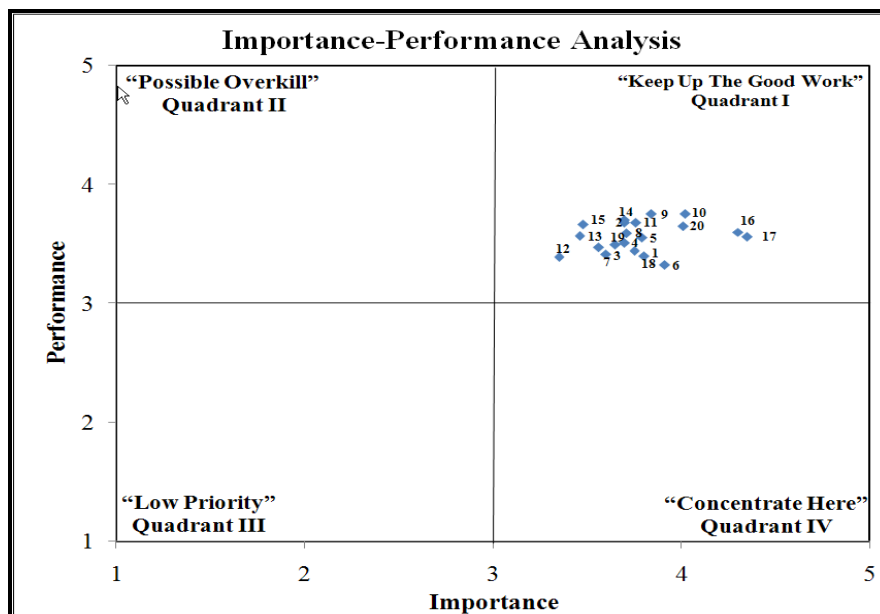* For an explanation of the codes, please refer to Table 1.

Figure 2. IPA results (using a score of 3 as the midpoint)

To further understand the service insufficiencies of the CDA, we used average values as the point of separation to obtain more detailed IPA results (Figure 3).
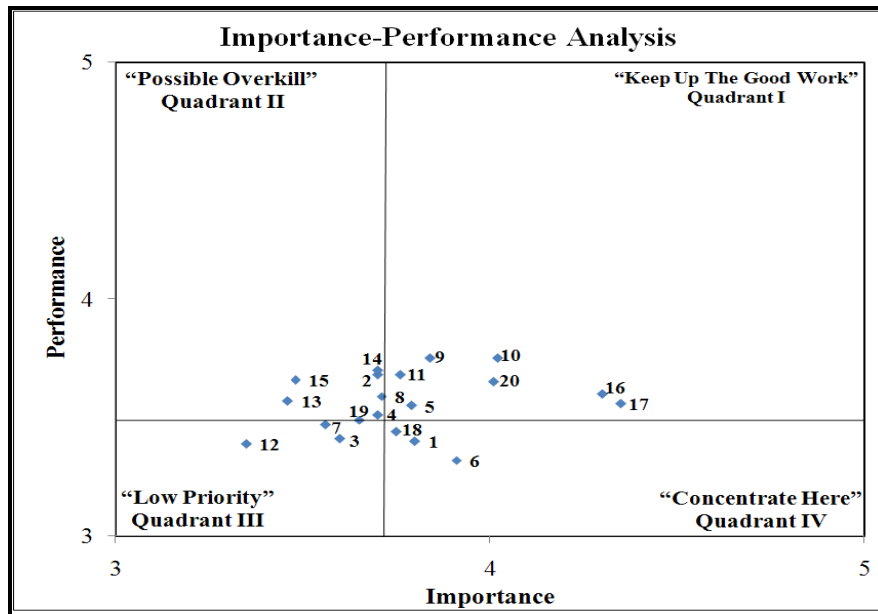

Figure 3. IPA results (using average values as the midpoint)

Table 4 shows the quadrant attributes for the various IPA items. Seven items were distributed in Quadrant I, seven in Quadrant II, three in Quadrant III, and three in Quadrant IV.

Table 4. The quadrant attributes for the various items in IPA

Quadrant	Item number*
Quadrant I Keep Up The Good Work	5,9,10,11,16,17, and 20
Quadrant II Possible Overkill	2,4,8,13,14,15, and 19
Quadrant III Low Priority	3,7, and 12
Quadrant IV Concentrate Here	1,6, and 18
* For an explanation of the codes, please refer to Table 1.	

IV. CONCLUSION

Based on a SERVQUAL questionnaire developed in this study, we used the IPA method to investigate the service quality of a CDA. The overall performance of the research subject was excellent. Few of the services that were considered extremely important to the residents failed to satisfy the residents. Thus, the quality of services provided is the crucial aspect that the CDA should improve immediately. The CDA should thoroughly review the essential aspects of the various issues and develop improvement strategies to enhance residents' satisfaction.

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