Service Quality of Volunteers' Coproduction in Nonprofit Organizations – An Empirical Study of Kaohsiung Museum of Fine Arts in Taiwan

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Abstract
Since nonprofit organizations (NPOs) have their own distinct missions, their marketing activities differ from the activities suggested by general marketing theory. The volunteers' co-production orientation will assist NPOs to broaden their missions, and thus be recognized. This study will examine one such volunteers' coproduction model and ascertain the key factors – teamwork, volunteer-job fit, technology-job fit, perceived control and supervisory control systems, role pressure – that affect volunteers' service quality when they participate in coproduction. The results reveal that the volunteers will be more concerned and understand with consumers' demand than that of employees after coproduction. Their service quality delivery will not be affected by their role conflict and ambiguity.

Key words: volunteer; coproduction; service quality; nonprofit organization

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Introduction
The concept of NPOs marketing is broadened by Kotler and Levy (1969), and many other scholars from the concept of marketing into NPOs (Kotler and Zaltman, 1971; Shaprio, 1973). However, Rothschild (1979) argued that it is difficult to broaden the concept of marketing due to some prevalent problems.

Lovelock and Weinberg (1978) pointed out that NPOs marketing hardly employs new principles of marketing, and the primary difference between the marketing activities of NPOs and those of general business organization lies in the traits of NPOs, including facing multiple groups, multiple goals, intangible products, and public monitoring.

Therefore, NPOs engaging in marketing use short-term promotion and advertisement to attract large audiences, but will have customers too crowded, which
may adversely affect consumer satisfaction. NPOs should accent how to combine social and institutional resources, how to transform these resources into products or services for target markets, and further how to fulfill missions of NPOs.

NPOs combine finance, materials and manpower. All of which are social resources especially the utilization of human resources, which is the best way to transmit NPOs' missions. In other words, NPOs can use citizen participating in coproduction to be the supply-demand bridge between institutions and consumers.

In the co-production of service, the scale and scope of customers' participation have been significantly transformed and enhanced by new e-business models and technology. This transition calls for a new understanding of customers' roles in service delivery systems. The concept of customer efficiency is crucial for the successful management of systems where customers are actively engaged in service production and delivery processes (Xue and Harket, 2002).

But the problem is that when a company does less, the customer ends up doing more and most customers do not want to do more. In many cases, self-service sites just leave customers frustrated and annoyed (Moon and Frei, 2000). A better approach to NPOs is what is called volunteers' co-production. In this model, NPOs use technology and volunteers to shoulder the burden of many of the tasks involved in guidance, advice and training.

Use of volunteers will diminish the supply-demand gap, change consumers' attitudes to organizations, assist organizations to understand consumer demand, and further helps to complement employee insufficiency as well as modify certain NPO policies and or services. Thus, by utilizing volunteers, NPOs could reduce service gaps and attain their missions simultaneously.

The Purposes of This Study

The study contains two purposes:

(1) The study will investigate gaps among perceived consumer expectations of employees, as well as those of volunteers, service delivery of volunteers, and consumer expected services.

(2) This study will recognize the key factors affecting volunteer quality service delivery and this recognition could help to propose suitable management strategies.

This study selected the case of Kaohsiung Museum of Fine (KMFA) as the subject of the study because the KMFA represents NPOs, makes use of a great number of volunteers, and presents a convenient subject for study.
The Concept of Coproduction

Two types of definition of coproduction appear in the literature. The first asserts that citizen participation is involved in the provision of any service. This concept presumably regards citizen input as not crucial. Thus, co production may be understood as “the active involvement of the general public and, especially, those who are to be the direct beneficiaries of the service.” (Brudney and England, 1983)

Kiser and Percy (1980) introduce the other concept of the coproduction. It adopts the concepts of “regular producer” and “consumer producer”. While the former produces goods and services instrumentally for purpose of exchange, the latter, acting outside its regular production roles, produces services to consume the resulting output. Coproduction, then, “involves a mixing of the productive efforts of regular and consumer producers”(Kiser and Percy, 1980). The differences between the two models (Figure 1 and 2) can be illustrated in a straightforward manner by comparing the two models.

![Figure 1 Traditional Model of Service Delivery](image)

![Figure 2 Coproduction Model of Service Delivery](image)


Therefore, the coproduction model is defined by the degree of overlap between participants - regular producers (e.g., service agents, public administrators) and consumers (e.g., citizens, neighborhood associations). The resultant overlap represents
joint production of services by these two groups. Coproduction consists of citizen participation, rather than bureaucratic responsiyenness, in the delivery of urban services. The outcomes of the overlapping process are intended to have a positive, rather than negative, impact on service delivery patterns.

Coproduction stems from voluntary cooperation on the part of citizens, rather than compliance with laws or city ordinances, and it involves active (rather than passive) behaviors (Brudney and England, 1983). The coproduction literature has underscored the role of citizens' voluntary contribution of time in the production of publicly provided goods and services (Ferris, 1984).

Coproduction is a process through which inputs from individuals who are not "in" the same organization are transformed into goods and services, and the implications of coproduction in polycentric systems for synergy and development are addressed (Ostrom, 1996).

The Advantages of Utilizing Volunteers

NPOs work under the constraint of limited resources for long periods of time, and this always requires them to recruit volunteers to help them. Volunteer contribution is one of the most important social resources that NPOs may utilize. Moreover, the volunteers in the NPOs marketing play a double role – that of producer and consumer. They can be the resources of NPOs if managed properly and can be the bridge between NPOs and target consumers (Kao and Yang, 1996).

According to Taur, 1993, the recruitment of volunteers and the participation of community citizens are not merely to gain free manpower assistance for a municipal museum, for example, but also to serve the following six purposes:

(1) To supply necessary information or consultation for service alternatives through citizen participation
(2) To establish for the museum conformity and recognition by the public;
(3) To change community citizens' attitudes to the museum;
(4) To train participants to be social educators, to help society grow healthily;
(5) To complement employee insufficiency;
(6) To change the policies and services of the museum.

The reason that NPOs can survive and develop is that volunteers provide all kinds of administrative, professional, profitable and co-beneficial assistance. Besides these, recruitment can induce residual manpower into other useful routes, and avoid resources wasting or improper development. Therefore, if the volunteer system can be effectively managed, sufficiently emphasized and actively supported, the missions and ideals of NPOs may be fulfilled easily. (Pong, 1995)
Many coproduction literatures indicate citizens or volunteers participation in co
production will not only increase institutions assistant resources and reduce financial
expenditure (Bjur, 1981; Siegel, 1983) but also improve service quality delivery
(Sharp, 1980; Bjur, 1981; Rosentraub and Sharp, 1981; Brudney and England, 1983;
Ferris, 1984; Thomas, 1987). Ferris (1984) evidently shows there is technical
efficiency and efficiency of allocation when volunteers participate in coproduction.
The technical efficiency of co production depends on the nature of the production
function for collective goods and services. In the case of voluntary donations of time,
it is imperative that the skills of the donor be a useful addition to the production
process. A major obstacle to allocated efficiency in the public sector is the difficulty in
eliciting the true demands of individuals for publicly provided goods and services.
Volunteers' co production will provide a vehicle for citizens or consumers to express
their demands for publicly provided goods and services.

The Service Quality Model

The delivery of quality in goods and services has become the primary concern of
marketing since the 1980s (Leonard and Sasser, 1982; Rabin, 1983). Though
marketers of tangible goods define and measure quality with increasing levels of
precision (Crosby, 1979; Garvin, 1983), marketers of services experience difficulty in
understanding and controlling quality. This is because services are performances
rather than objects. Precise manufacturing specifications of uniform quality can rarely
be established and enforced by the firm.

Service quality occurs during service delivery, usually in an interaction between
the customer and the contact personnel of the service firm. For this reason, service
quality highly depends on the performance of employees, an organization in which
resource cannot be controlled to the degree that components of tangible goods can be
engineered.

The service quality model as proposed by Parasuraman, Zeithaml, and Berry,
1985, indicates that consumers' quality perceptions are influenced by a series of four
distinctive gaps within an organization. These inadequacies on the service provider's
side, which can impede delivery of services that consumers perceive to be of high
quality, are as follows:

Gap 1: Difference between consumer expectations and management perceptions of
consumer expectations.

Gap 2: Difference between management perceptions of consumer expectations and
service quality specifications.

Gap 3: Difference between service quality specifications and the service actually
delivered.
Gap 4: Difference between service delivery and what is communicated about the service to consumers (Parasuraman, Zeithaml, and Berry, 1988).

Perceived service quality is defined in the model as the difference between consumer expectations and perceptions (gap 5). This difference in turn depends on the size and direction of the four gaps associated with the delivery of service quality on the part of the marketer. The perceived service quality component is primarily selected by five criteria consisting of tangibles, reliability, responsiveness, assurance, and empathy.

The Effective Factors of Service Delivery in Organizations

This study examined key factors that affect the volunteers' service quality delivery. Therefore, we surveyed the cause of service quality performance.

The main theoretical constructs proposed to account for the size of gap 3 are teamwork, employee-job fit, technology-job fit, perceived control, supervisory control systems, role conflict, and role ambiguity. As demonstrated by Parasuraman, Zeithaml and Berry (1988), service quality delivery is related to (1) extent of teamwork perceived by employees (+), (2) employees-job fit (+), (3) technology-job fit (+), (4) extent of perceived control experienced by customer-contact personnel (+), (5) extent to which behavioral control systems are used to supplement output control systems (+), (6) extent of role conflict experienced by customer-contact personnel (-), and (7) extent of role ambiguity experienced by customer-contact personnel (-).

Therefore, this study deduces that volunteers' service quality delivery is related to (1) extent of teamwork perceived by volunteers (+), (2) volunteers-job fit (+), (3) technology-job fit (+), (4) extent of perceived control experienced by customer-contact personnel (+), (5) extent to which behavioral control systems are used to supplement output control systems (+), (6) extent of role conflict experienced by customer-contact personnel (-), and (7) extent of role ambiguity experienced by customer-contact personnel (-).

METHOD

The Structure of the Study

The framework of this study is constructed according to the above literature review of service quality, with the hope of suggesting strategies for the effective use and management of volunteers through the understanding of the service performance gap generation. This study contains three parts of analysis, as follows:
1. To compare perceived consumer expectations of employees and volunteers, as well as expected service of consumer, and then to find the cognition of volunteers change after they participate in co-production.

2. To compare delivery service quality of volunteers and perceived consumer expectations of volunteers.

3. Taking demographic characters, job characters, supervisory control systems, and role pressures as effective variables affecting the service delivery, and finding the key factors influencing the volunteers’ service delivery.

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**Figure 3 The Framework of This Study**

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**Research Hypothesis**

In the light of research purpose, framework and literature review I have established the following research hypothesis:

H1: Significant differences among perceived consumer expectations of employee, volunteer, and expected service of consumer.

H2: Significant differences on perceived consumer expectations and delivery service of volunteer.

H3: Different demographic characteristics have significant influence on delivery service of volunteer.

H4: Different job characteristics have significant positive influence on delivery service of volunteer.

H5: Different Supervisory Control Systems have significant positive influence on delivery service of volunteer.

H6: Different role pressures have significant negative influence on delivery service of volunteer.
Definition of Service Quality Management Variables

As shown in Figure 3, the service quality management variables include demographic characters, job characters, supervisory control systems, and role pressures.

Demographic characters include sex, age, academic degree, career, training, term and prize.

Job characters include teamwork, volunteer-job fit, technology-job fit, and perceived control. Role pressure includes role conflict and role ambiguity. Each of these definitions of variables is clearly explained in Table 1.

<table>
<thead>
<tr>
<th>Constructs</th>
<th>Definition of Specific Variables</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teamwork</td>
<td>Extent to which volunteers view other volunteers as customers</td>
</tr>
<tr>
<td></td>
<td>Extent to which contact personnel feel upper level managers genuinely care for them</td>
</tr>
<tr>
<td></td>
<td>Extent to which contact personnel feel they are cooperating (rather than competing) with others in the organization</td>
</tr>
<tr>
<td></td>
<td>Extent to which volunteers feel personally involved and committed</td>
</tr>
<tr>
<td>Employee-job fit</td>
<td>Ability of employees to perform job</td>
</tr>
<tr>
<td>Technology-job fit</td>
<td>Importance and effectiveness of selection processes</td>
</tr>
<tr>
<td>Perceived control</td>
<td>Appropriateness of tools and technology for performing job</td>
</tr>
<tr>
<td>Supervisory control</td>
<td>Extent to which volunteers perceive they are in control of their jobs</td>
</tr>
<tr>
<td>control systems:</td>
<td>Extent to which customer-contact personnel feel they have flexibility in dealing with customers</td>
</tr>
<tr>
<td></td>
<td>Predictability of demand</td>
</tr>
<tr>
<td></td>
<td>Extent to which volunteers are evaluated on what they do (behaviors) rather than solely on output quantity</td>
</tr>
<tr>
<td>Role conflict</td>
<td>Perceived conflict between expectations of customers and expectations of organization</td>
</tr>
<tr>
<td>Role ambiguity</td>
<td>Existence of management policy that conflicts with specifications</td>
</tr>
<tr>
<td></td>
<td>Perceived clarity of goals and expectations</td>
</tr>
<tr>
<td></td>
<td>Perceived level of competence and confidence</td>
</tr>
</tbody>
</table>

Design of the Study

This study employs three types of questionnaires. The first examines 22 service items based on the five service quality criteria purported by Parasuraman (1988). The second questionnaire employs Likert’s 5 Points Scale assessment, and the third consists of 17 items resulting from a KMFA expert’ discussion. These 17 items were designed to look into consumer service expectations.

Questionnaire 1 was sent to 49 employees of KMFA to examine their perceived consumer expectations, and 26 valid copies of responses (53%) were returned.
Questionnaire 2 was sent to 178 volunteers at KMFA. 105 valid copies of responses (59%) were returned. This questionnaire was designed to investigate the perceived consumer expectations, their service delivery quality, and organization factors that affect service quality. Such organizational factors include job character, supervisory control systems, role pressure experience, and demography.

Questionnaire 3 had 400 consumers of KMFA to test their service expectations and perceptions by personal interview.

Reliability and Validity

This study used internal consistency (cronbach $\alpha$) to test the reliability of research findings. Except for the assurance criteria for employee (0.359), the five service quality criteria, for employee, volunteer, and consumer, are all located within the range of 0.624 - 0.832. The cronbach $\alpha$ of teamwork perceived, technology-job fit, perceived control, supervisory control systems, role conflict, and role ambiguity are located within the range of 0.614 - 0.812. The questionnaires used in this study are constructed by referencing questionnaires in Parasuraman et al. (1988); hence, this study and its findings should be of medium reliability and content validity.

Study findings and discussion

4.1 on the cronbach $\alpha$ is the difference among perceived consumer expectations of employee / volunteer, and expected service of consumer.

According to ANOVA analysis (Table 2), it appears that employees cannot understand consumers’ service expectation of tangibles, reliability, responsiveness, and empathy. Additionally, volunteers’ perceptions of service attribute are located between the expectations of employees and those of consumers after they have participated in co production. Therefore, we may deduce that volunteers will be the supply-demand bridge that could be cultivated when they participate in co production, to diminish gaps between organizations and consumers.
Table 2 Test on Perceived Consumer Expectations of Employee, Volunteer, and Expected Service of Consumer

<table>
<thead>
<tr>
<th>Service Attributes</th>
<th>Volunteer</th>
<th>Employee</th>
<th>Consumer</th>
<th>F Value</th>
<th>Scheffe’s test</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tangibles</td>
<td>4.019</td>
<td>4.413</td>
<td>4.004</td>
<td>6.214**</td>
<td>2-3,2-1</td>
</tr>
<tr>
<td>Reliability</td>
<td>3.996</td>
<td>4.492</td>
<td>3.934</td>
<td>7.924***</td>
<td>2-3,2-1</td>
</tr>
<tr>
<td>Responsiveness</td>
<td>4.142</td>
<td>4.512</td>
<td>4.044</td>
<td>7.238***</td>
<td>2-3,2-1</td>
</tr>
<tr>
<td>Assurance</td>
<td>4.172</td>
<td>4.262</td>
<td>4.079</td>
<td>1.789</td>
<td></td>
</tr>
</tbody>
</table>

Perceived difference between consumer expectations and delivery service of volunteers

According to t-test analysis (see Table 3) the volunteers’ self-perception delivery service is apparently higher than the service of their perceived consumer expectation in tangibles, reliability, assurance and empathy. This may result from two reasons: one is that these self-discipline volunteers do best service quality spontaneously; the other is that the volunteers usually accept organization culture and claims of museum after participating in coproduction. Therefore, we hope to find what kinds of organizational and personal variables will significantly affect service quality delivery of volunteers.

Table 3 Test on “Perceived Consumer Expectations” and “Delivery Service” of Volunteer

<table>
<thead>
<tr>
<th>Service Attributes</th>
<th>Perceived Consumer Expectations of Volunteer</th>
<th>Volunteer Delivery Service</th>
<th>T value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tangibles</td>
<td>4.02</td>
<td>4.55</td>
<td>8.35***</td>
</tr>
<tr>
<td>Reliability</td>
<td>4.00</td>
<td>4.33</td>
<td>4.08***</td>
</tr>
<tr>
<td>Responsiveness</td>
<td>4.14</td>
<td>4.25</td>
<td>1.74</td>
</tr>
<tr>
<td>Assurance</td>
<td>4.17</td>
<td>4.41</td>
<td>4.26***</td>
</tr>
<tr>
<td>Empathy</td>
<td>3.96</td>
<td>4.18</td>
<td>4.02***</td>
</tr>
</tbody>
</table>

Key variables affecting volunteer service quality delivery

This study analyses the key variables affecting volunteer service quality delivery. The variables include demography characters, job character, supervisory control system, and role pressure.
Table 4  Test on “Volunteer Service Quality Delivery” against “Demographic Characters”

<table>
<thead>
<tr>
<th></th>
<th>tangible</th>
<th>reliability</th>
<th>responsiveness</th>
<th>assurance</th>
<th>empathy</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>mean</td>
<td>F value</td>
<td>P value</td>
<td>mean</td>
<td>F value</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Schefe test</td>
<td></td>
<td></td>
</tr>
<tr>
<td>sex</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>man</td>
<td>4.533</td>
<td>0.063</td>
<td>0.803</td>
<td>4.267</td>
<td>0.403</td>
</tr>
<tr>
<td>female</td>
<td>4.561</td>
<td>4.368</td>
<td>4.276</td>
<td>4.434</td>
<td>4.175</td>
</tr>
<tr>
<td>age</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20-40</td>
<td>4.506</td>
<td>0.387</td>
<td>0.680</td>
<td>4.074</td>
<td>6.731</td>
</tr>
<tr>
<td>degree</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>high school</td>
<td>4.571</td>
<td>0.078</td>
<td>0.781</td>
<td>4.357</td>
<td>0.005</td>
</tr>
<tr>
<td>above</td>
<td>4.547</td>
<td>4.348</td>
<td>4.293</td>
<td>4.402</td>
<td>4.208</td>
</tr>
<tr>
<td>college</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>career</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>official &amp; teacher</td>
<td>4.519</td>
<td>0.423</td>
<td>0.737</td>
<td>4.389</td>
<td>0.352</td>
</tr>
<tr>
<td>private</td>
<td>4.600</td>
<td>4.425</td>
<td>4.210</td>
<td></td>
<td>4.000</td>
</tr>
<tr>
<td>enterprise</td>
<td>4.628</td>
<td>4.382</td>
<td>4.400</td>
<td></td>
<td>4.471</td>
</tr>
<tr>
<td>retire</td>
<td>4.519</td>
<td>4.278</td>
<td>4.233</td>
<td>4.396</td>
<td>4.185</td>
</tr>
<tr>
<td>housewife</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>training</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1st &amp; 2nd term</td>
<td>4.526</td>
<td>0.908</td>
<td>0.835</td>
<td>4.307</td>
<td>0.951</td>
</tr>
<tr>
<td>3rd &amp; 4th term</td>
<td>4.608</td>
<td>4.427</td>
<td>4.318</td>
<td>4.419</td>
<td>4.245</td>
</tr>
<tr>
<td>prize</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>no</td>
<td>4.538</td>
<td>0.343</td>
<td>0.560</td>
<td>4.307</td>
<td>0.951</td>
</tr>
<tr>
<td>yes</td>
<td>4.588</td>
<td>4.427</td>
<td>4.318</td>
<td>4.537 *</td>
<td>4.245</td>
</tr>
</tbody>
</table>

* P < 0.05  ** P < 0.01

From table 4, we find that those volunteers aged between 41-50 obviously demonstrate better service quality than other volunteers in reliability and assurance. From this result we may deduce that those volunteers have more social experience than those aged 20-40, and that they are more active than those above age 50. The prized volunteers significantly perform better service quality than the non-prized do in
assurance. Those prized volunteers’ service timing and duty points conform to the requirement of the museum. Hence, the KMFA should benignly utilize volunteers.

Job characters include teamwork, volunteer-job fit, technology-job fit, and perceived control. Table 5 shows that all these items significantly and positively correlate with the five service delivery criteria of volunteers. Obviously, KMFA can effectively improve volunteers’ service quality through the following suggestions:

1. By encouraging volunteers to participate in improving service quality and further strengthen teamwork in KMFA.
2. To respect training volunteers for volunteer-job fit.
3. To enhance volunteers understanding equipment operation for technology-job fit.
4. Allowing volunteers to control their service quality independently.

Table 5  The Correlation “Job Character”, “Supervisory Control Systems”, “Role Pressure” with “Volunteers’ Service Quality Delivery”

<table>
<thead>
<tr>
<th>Volunteers’ service delivery</th>
<th>Tangibles</th>
<th>Reliability</th>
<th>Responsiveness</th>
<th>Assurance</th>
<th>Empathy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teamwork</td>
<td>0.4251***</td>
<td>0.3555**</td>
<td>0.4431***</td>
<td>0.3724***</td>
<td>0.3581***</td>
</tr>
<tr>
<td>Volunteer-job fit</td>
<td>0.4455***</td>
<td>0.4217***</td>
<td>0.5044***</td>
<td>0.4512**</td>
<td>0.4405***</td>
</tr>
<tr>
<td>Technology-job fit</td>
<td>0.3531**</td>
<td>0.2571*</td>
<td>0.3730***</td>
<td>0.3513**</td>
<td>0.3602***</td>
</tr>
<tr>
<td>Perceived control</td>
<td>0.5854***</td>
<td>0.5494***</td>
<td>0.6583***</td>
<td>0.5741***</td>
<td>0.5691***</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Supervisory Control Systems</th>
<th>Tangibles</th>
<th>Reliability</th>
<th>Responsiveness</th>
<th>Assurance</th>
<th>Empathy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Role conflict</td>
<td>0.0075</td>
<td>0.1252</td>
<td>0.0696</td>
<td>0.0517</td>
<td>-0.0363</td>
</tr>
<tr>
<td>Role ambiguity</td>
<td>-0.0783</td>
<td>-0.1410</td>
<td>0.0733</td>
<td>0.0369</td>
<td>0.0067</td>
</tr>
</tbody>
</table>

*P < 0.05  **P < 0.01  ***P < 0.001

Supervisory control systems correlate positively with five service delivery criteria of volunteers. The result indicates that KMFA may connect supervisory control system with service quality to enhance service quality.

Role pressure is an important factor influencing service quality of employee in the extended model of service quality provided by Parasuraman et al. (1988).
However, this study reveals that role conflict and ambiguity do not correlate significantly with service quality. Characters of volunteers may cause the insignificance.

Volunteers apparently differ from employee in their job role. Employees represent producer, but volunteers play a double role - producer and consumer. Therefore, there will likely be role conflict and ambiguity when they take consumers’ position. However, their service shows a precise understanding of consumers needs. This dual role of volunteers may help to relax role pressure effectively.

Conclusions and Suggestions

According to the above analyses, the following conclusions and suggestions have been made:

1. Except for “assurance”, service attributes have significant differences among perceived consumer expectations of employee, volunteer, and expected service of consumer. These results partly support H1.

2. Except for “Responsiveness”, service attributes have significant differences on “perceived consumer expectations” and “delivery service” of volunteer. These results partly support H2.

3. In accord with H3, age difference and being a prized or not prized volunteer have significant influence on delivery service of volunteer.

4. Different job characters — teamwork, volunteer-job fit, technology-job fit, perceived control — have significant positive influence on service delivery of volunteer as suggested in H4.

5. In line with H5, different Supervisory Control Systems have significant positive influence on delivery service of volunteer.

6. As assumed in H6, different role pressures — role conflict and ambiguity — have no significant negative influence on delivery service of volunteer.

According to these conclusions, we will propose the following suggestions:

1. After participating in activities of NPOs, consumers or citizens will accommodate their attitudes as suppliers, and they will understand their own demands better than suppliers do.

2. The quality of service delivery actually performed by volunteers is better than the expectation of consumers. Therefore, volunteers participating in coproduction will enhance service quality.

3. KMFA may encourage volunteers to teamwork with partners and may train them as qualified workers, which will improve volunteers’ service delivery.
4. The establishment of suitable supervisory control system will allow volunteers to know what they should do rather than solely evaluate their output.

5. That role conflict does not decrease service quality delivery of volunteers. The result implies that the conflict roles of volunteers will let volunteers understand clearly the demands of suppliers and consumers and the need to provide more suitable service.

Therefore, volunteers will adopt a positive attitude to the institution and become more concerned with consumers' demand than those employees after coproduction. And it has been shown that role conflict and ambiguity do not affect their service quality delivery. If managed properly, volunteers' participation in NPOs coproduction not only provide available resource, but also reduce the discrepancies between NPOs and target consumers. Hence, the coproduction of volunteer may be able to diminish the supply-demand gap, change consumers' concepts as well as attitudes to organizations, and further assist in attaining the missions of NPOs.

Effective planners do not represent or act as agents on behalf of their customers that tend to promote dependency. Rather they work to empower and to reinforce the self-sufficiency of their customers. Successful planners are using volunteerism, self-help, and co production techniques to ensure that their customers are given actual authority and shared responsibility for solving their problems (McClelond, 1993).

Study Limitation

This study is base on the case of the Kaohsiung Museum of Fine Arts. Therefore, its conclusions apply only to KMFA. Applications to other NPOs should be made with caution.
REFERENCES


非營利組織志工合產服務品質之研究
- 以高雄市立美術館為例

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中文摘要
由於非營利組織有其特定的經營使命，因此其行銷活動並不同於一般的商業行銷活動，志工合產導向除了能使其認同非營利組織的經營使命，亦能協助其使命的推展，本研究試圖檢驗志工合產模式，並確認影響志工合產服務品質的關鍵因素（團隊合作、工作配適性、技能配適性、知覺控制和主管控制系統、角色壓力），研究結果顯示高雄市立美術館志工較員工關心與瞭解顧客的需求，且角色模糊與衝突並不會降低志工合產服務品質。

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