

The Impact of Social Exchange-Based Antecedents on Customer Organizational Citizenship Behaviors (COCBs) in Service Recovery

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Value co-creation through collaboration with customers has been noted as a significant issue. Based on social exchange theory, this research empirically investigates antecedents of customer organizational citizenship behaviors (COCBs), which refer to customer co-participation, in the service recovery context. A contribution of this research is to examine actual COCBs rather than COCB intention. Findings reveal that when individuals perceive support and/or justice from the organization, they feel affective commitment toward the organization, which motivates COCBs, and, in turn, they voluntarily aid firms in resolving service failures. COCBs in service recovery were found to have three dimensions: suggestions, flexibility, and voice.

INTRODUCTION

Recently the marketing discipline has shifted from a goods-centered perspective, which considers tangible output and distinct transactions as a key value, to a service-centered point of view, which focuses on intangible, exchange processes, and relationships among exchange entities (Vargo and Lusch, 2004). By viewing customers as value co-creators, the new perspective argues that value can be co-created through collaboration with all parties in a value creation network, and through learning from customers (Vargo and Lusch, 2004). Along with this notion, the issues related to customer organizational citizenship behaviors (COCBs), defined as “voluntary and discretionary behaviors that are not required for the successful production and delivery of the service but that, in the aggregate, help the service organization overall” (Groth, 2005, p.11), have been noted by researchers and practitioners due to the positive influences of COCBs such as value co-creation, long-term relationship with customers, and effectiveness of marketing strategies (Dong, Evans, and Zou, 2008; Roggeveen, Tsiros, and Grewal, 2011).

However, little empirical research has investigated how COCBs influence value co-creation and what factors influence COCBs. As the primary goal, this study investigates the potential antecedents of COCBs. More specifically, this study focuses on COCBs in service recovery. Service recovery is defined

as the actions provided by an organization as a response to a service failure (Gronroos, 1988), because customers can actively suggest ways in which to recover the service failure and apply their skills or knowledge to resolve the problem (Dong et al., 2008). Most research in organizational citizenship behaviors (OCBs) has been performed in organizational settings such as employees' voluntary or extra-role behaviors for their organizations. Considering customers as partial employees, characterized as co-producers who contribute inputs, much like employees, who influence the organization's productivity (Bowen, Schneider, and Kim, 2000), this study provides empirical support and suggests the possibility of *customers'* citizenship behaviors for the organization by applying social exchange theory in organizational literature to customer behavior in the service recovery situation.

This examination also seeks to measure actual COCBs in service recovery, that is, those behaviors that customers in reality performed when service failure occurred and was restored. Previous research has mainly focused on intention or willingness of COCBs rather than on actual COCBs, by examining the effect of loyalty (Bove, Pervan, Beatty, and Shiu, 2009) or perceived justice (Yi and Gong, 2008) on COCBs. However, this study measures actual COCBs in service recovery by conceptualizing the actual COCB as a consequence of the motivation of COCBs, which refers to the psychological processes that cause the arousal, direction, and persistence of COCBs (Mitchell, 1982). In addition, this study strives to confirm three dimensions (i.e., suggestions, flexibility, and voice behavior) of COCBs in service recovery situations. This approach is an important contribution in that there is no consistent scale to measure COCBs in specific situations such as service recovery.

Following is a brief explanation of social exchange theory and a literature review regarding COCBs and relevant antecedents. Next, the conceptual model and hypotheses to be tested are presented (see Figure 1). Specifically, the conceptual model hypothesizes that social exchange-based antecedents (i.e., customer's perception of organizational support, customer's perception of organizational justice, and affective commitment) positively influence motivation of COCBs, and, in turn, results in COCBs in service recovery. Lastly, the study's results and managerial and research implications are provided.

THEORETICAL BACKGROUND

Social Exchange Theory

Unlike traditional economic exchange based on the *quid pro quo* exchange of tangible resources (Blau, 1964), social exchange includes intangible social costs and benefits (e.g., friendship and caring) but does not require reciprocal rewards such as return of investment (Gefen and Ridings, 2002). Researchers have characterized social exchange as an exchange through socio-emotional benefits, mutual commitment and trust among parties, and a long-term relationship (Blau, 1964; Van Dyne, Graham, and Dienesch, 1994). Also, social exchange is based on the implied cooperative intentions among parties in exchange interaction, which refer to a party's belief that the other party will provide reciprocal rewards (Blau 1964; Emerson, 1976).

Social exchange theory has been the major foundational framework of organizational research such as organization-employee relationship (Bolino, Turnley, and Bloodgood, 2002) and employee organizational citizenship behaviors (Organ, 1990). Rupp and Cropanzano (2002) state that people in social exchange relationships are more likely to identify with parties with whom they are engaged compared to those in economic exchange relationships. This difference reflects how employees in a favorable relationship of social exchange are more likely to take part in behaviors that lead to positive consequences for the organization because they may identify the well-being of the organization with their own well-being and because they may perceive a responsibility to help the organization (Lavelle, Rupp, and Brockner, 2007).

In the organizational literature, employee voluntary behaviors such as OCBs are considered important behavioral outcomes that explain social exchange relationships between employees and their organization. By expanding this notion to customer behaviors and considering customers as partial employees, it makes sense that a customer in a social exchange relationship with an organization can engage in OCBs such as helping employees, providing constructive ideas to their organization, and

making suggestions through their ideas and knowledge to improve the performance or offerings of the organization.

LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

Motivation of COCBs and COCBs in Service Recovery

COCBs are considered as specific and extended forms of customer participative behavior, which refer to customer participation in the creation of the core offering (Lusch and Vargo, 2006). COCBs are conceptualized as the customer's extra-role or voluntary performances, which are discretionary behaviors beyond in-role or required performances. More specifically, some researchers have distinguished two types of customer value co-creation behaviors: customer participation or customer coproduction and COCBs (Groth, 2005; Yi and Gong, 2013). While customer participation or coproduction refers to in-role or required actions for value co-creation, COCBs represent extra-role or discretionary behaviors that can provide extraordinary value to the firm but are not required for successful value co-creation (Groth, 2005).

Studies conducted on customer participation or coproduction have proposed that the customer's motivation to participate in organizational events is a significant antecedent of actual participation (Kelley, Donnelly, and Skinner, 1990; Bettencourt, Ostrom, Brown, and Roundtree, 2002). In addition, Buttgen, Schumann, and Ates (2012) confirmed motivation to coproduce as a predictor of coproduction behaviors, by pointing out that a customer's motivation to engage in coproduction is the most important requirement for coproduction behavior in the service production process (Bettencourt et al., 2002; Dellande, Gilly, and Graham, 2004). Given this background, we argue that the motivation for COCBs positively influences actual COCBs when an organization is in trouble or experiences difficulties. However, most previous studies have focused on investigations of intention of COCBs, rather than actual COCBs, which customers have experienced in reality. Recently, some researchers have viewed OCBs as actual behaviors, which arise from personal motivations to understand what produces beneficial actions or prosocial work behaviors (Finkelstein, 2008; Rioux and Penner, 2001), rather than intention or willingness of COCBs.

This study focuses on *COCBs in a service recovery* situation, defined as *a customer's voluntary and discretionary behaviors to aid the organization in devising a remedy for its service failure*. Dong et al. (2008) argued that it is possible that customers actively engage in co-creating solutions for service failures because these failures give customers an opportunity to apply specialized knowledge and skills related to the failed service. Roggeveen et al. (2011) also demonstrated that co-creation is effective as a service recovery strategy when customers consider it positively and voluntarily. Buttgen et al. (2012), in a first study of its kind, recently empirically confirmed that customers' motivation to coproduce is positively related to customer coproduction behavior in a health-related training context. Thus, this study predicts the positive relationship between the motivation toward COCBs and actual COCBs to restore a service failure.

H1. Motivation of COCBs has a positive impact on actual COCBs in service recovery.

Customer's Affective Commitment to an Organization and Motivation of COCBs

The organizational commitment meta-analysis of Meyer, Stanley, Herscovitch, and Topolnytsky (2002) revealed a direct and positive correlation between employee's affective commitment and prosocial behavior including OCBs. According to social exchange theory, employees who are strongly committed to their organization tend to reciprocate by showing behaviors that benefit the organization. This notion is in line with Organ's (1990) argument, in that organizational commitment is a significant factor that sustains the direction and incentives that lead to an organizational participant's behavior. Similarly, Meyer, Allen, and Smith (1993) argued that affective commitment, which is defined as "an affective or emotional attachment to the organization such that the strongly committed individual identifies with, is involved in, and enjoys membership in the organization" (Allen and Meyer, 1990, p.2) is closely

associated with perceptions of positive affective states, which facilitate proactive behaviors such as cooperation and problem solving. O'Reilly and Chatman (1986) empirically found that a good fit between an employee and an organization influences increased levels of employee philanthropy and helping behavior for the organization. Carmeli (2005) supports that a strong affective commitment to an organization generates a high value of OCBs.

Applying these principles from the employee-employer setting, when customers have a strong affective commitment to a particular organization, they are more likely to be motivated to perform OCBs. According to Ennew and Binks (1999), customers who are affectively committed to an organization tend to support their beliefs by actively participating in the organization's activities. Keh and Teo (2001) also suggested that customer commitment is positively related to COCBs, including customer cooperation, customer participation, and customer tolerance. Bettencourt (1997) empirically confirmed the positive effect of customer commitment on customer participation in organizational issues. More recently, Bove et al. (2009) empirically investigated how a customer's commitment to a specific service worker, potentially perceived as a representative of the organization, influences COCBs. Thus,

H2. Customers' affective commitment to the organization has a positive impact on motivation of COCBs.

Antecedents Based on Social Exchange Theory and Customers' Affective Commitment

Customers' Perception of Organizational Support (CPOS)

According to the organizational literature, employees can form global perceptions of the extent to which they are valued and cared about by the organization, called perceived organizational support (POS) (Eisenberger, Huntington, Hutchison, and Sowa, 1986). Rhoades and Eisenberger (2002) argue that POS results in a perceived obligation to care about the welfare of an organization and to assist the organization to achieve its goals. Thus, POS should not only fulfill socio-emotional desire, e.g., for organizational membership or social identity, but also strengthen employees' beliefs that the organization will reward their efforts (Rhoades and Eisenberger, 2002). Customers, as partial employees, can also perceive that an organization that interacts with them cares and supports them, namely *customer's perception of organizational support (CPOS)*. Eisenberger et al. (1986) argue that customers should feel that the organization understands their needs, acts in their best interests, and offers the best service possible. This kind of organizational caring and support is most likely to influence customers' perceptions and behaviors (Keh and Teo, 2001).

In the marketing and customer behavior discipline, social exchange infers that individuals are more likely to commit to an object that they believe treats them in a responsible manner because people tend to direct their reciprocation efforts toward the source or the object that provides benefits to them (Blau, 1964). Given this theoretical support, Foa and Foa (1980) found that the perception of obligation to care for an organization's welfare based on POS improves the affective commitment to the organization. More recently, Shore, Tetrick, Lynch, and Barksdale (2006) also demonstrated the positive effect of POS on employee OCBs by suggesting the mediating role of affective commitment. In line with this reasoning, Yi and Gong (2008) found that CPOS influences positive affect such as satisfaction in the service setting. Similarly, Bettencourt (1997) empirically confirmed the positive effect of CPOS on customer's commitment to a firm, which results in customer voluntary performance including loyalty, cooperation, and participation.

H3. CPOS positively influences customers' affective commitment to the organization.

Customer's Perception of Organizational Justice (CPOJ)

The concept of justice has been explored in organizational literature based on equity theory and social exchange theory. Researchers have conceptualized organizational justice in different ways, from an evaluation of fairness derived from the procedures of an organization (Thibaut and Walker, 1975) to an emphasis on consistent treatment and investigation of interpersonal treatment (Bies and Moag, 1986).

Specifically, distributive justice focuses on an employee's perception of equal balance in terms of the ratio of their contributions to their organization to compensation received from the organization. Procedural justice is related to employee's fairness perceptions of organizational processes (Tyler, DeGoe, and Smith, 1996), and interactional justice refers to employees' fairness perceptions about the quality of interpersonal treatment (Bies and Moag, 1986).

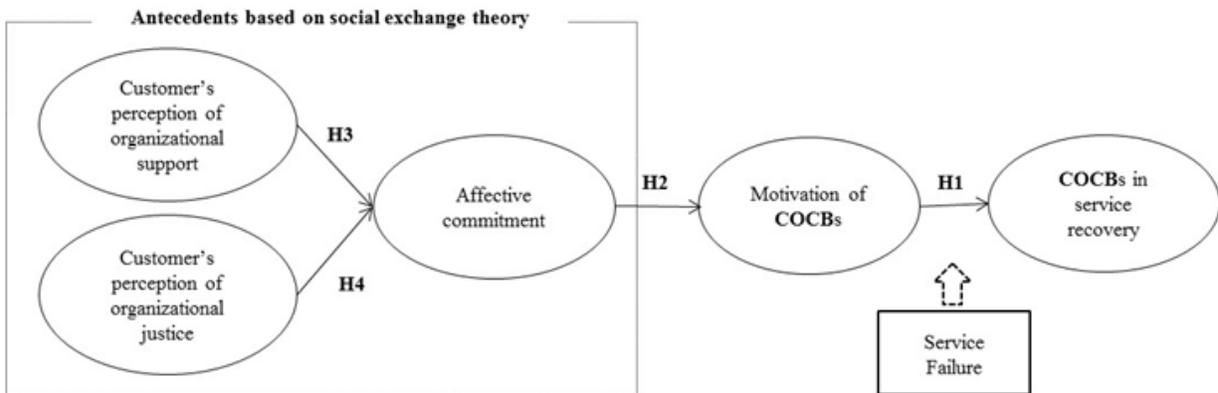
Researchers have argued that employees' perception of organizational justice leads to voluntary or discretionary behaviors such as OCBs (Greenberg, 1993; Moorman, 1991). However, the findings are inconsistent as to whether one dimension of organizational justice (i.e., distributive, procedural, and interactional) is stronger than the others in its impact on attitudes toward, or behaviors for, an organization. For example, Sweeney and McFarlin (1993) found that procedural justice has a stronger relationship with organizational commitment than distributive justice. Greenberg (1993) confirmed that distributive justice is a stronger predictor of organizational commitment than procedural justice. Given the inconsistent findings concerning the relative significance of dimensions, some researchers have recently suggested the need for a shift in the investigation to overall justice by combining the three types of justice. This need for a shift arises because the current three justice types have been shown to be both inappropriate and inaccurate as measurements of the overall justice that individuals experience in various situations (Ambrose and Schminke, 2009). Additionally, overall perception of organizational justice is a function of evaluation of the organization, which stems from all three dimensions.

Accordingly, Blodgett, Granbois, and Walters (1993) used a global measure of perceived justice that reflects the three dimensions of justice to test the customer compliant behavior model, showing acceptable reliability. The findings show that overall perceived justice has a significant influence on repatronage and positive word-of-mouth. More recently, Matos, Rossi, Veiga, and Vieira (2009) also found a positive relationship between justice perception and customer satisfaction in service recovery situations by using perceived organizational justice as a unidimensional construct in the same manner as performed by Blodgett et al. (1993).

Lind and Tyler (1988) found that when employees perceive themselves to be fairly treated, they are more likely to feel a strong sense of belonging to their organization, resulting in higher commitment to it. Although some researchers have investigated the effect of perceived justice on satisfaction, trust, and behavioral intention (Matos et al., 2009), customers' organizational commitment has not been solely examined as a direct outcome of perceived organizational justice. However, considering the positive effect of perceived organizational justice on employee's affective commitment in the organizational literature, it is argued that perceived organizational justice positively affects a customer's commitment to a firm.

H4. CPOJ positively influences customers' affective commitment to the organization.

FIGURE 1
CONCEPTUAL MODEL: SOCIAL EXCHANGE-BASED ANTECEDENTS OF COCBs IN SERVICE RECOVERY



METHOD

Data Collection and Sample

An online survey was conducted with students enrolled in a large, Midwestern and a Southwestern university. Respondents were asked to think of a service provider or retailer that they frequently patronize and answered questions about perceptions of support and justice from, and affective commitment toward, the service provider or retailer. Subsequently, respondents were also asked if they experienced a service failure within the past six months with the service provider or retailer and if they conducted voluntary behaviors related to service recovery. The order in which questions were asked insured that measures pertaining to their commitment, perceived justice, etc. toward the retailer/service provider, at the present time, would not be tainted by a focus on a past service failure/recovery experience discussed at the beginning of the survey. Given that the majority of respondents may not have experienced a service failure in which they complained, it was expected that the number of useable responses for the purpose of this study would be a small proportion of the total collected.

Questionnaires were distributed to a total of 232 individuals and reminder e-mail was sent to respondents after three days to induce participation. Out of a total of 224 surveys that were collected, we obtained 62 usable surveys to test our hypotheses because those 62 respondents experienced service failure and service recovery with their service provider or retailer in the past six months. Gender distribution of 62 participants was 33.9% male and 66.1% female. Ethnic distribution was 61.3% White/European, 14.5% Asian/Middle Eastern, 6.5% Black/African-American, and 17.7% other ethnicities.

Measures

All antecedents were adopted from previous studies (Eisenberger et al., 1986; Ambrose and Schminke, 2009). Those derived from the organizational literature were adapted for the services context. All questions regarding the five constructs were measured using 7-point Likert scales (1=strongly disagree and 7=strongly agree).

Fourteen items for *CPOS* were employed from Bettencourt (1997), and *CPOJ* was measured with seven items such as "Overall, I believe that the service provider/retailer is a fair organization." Additionally, scales to assess *affective commitment* were adopted from Vandenberghe et al. (2007) (e.g., "I feel emotionally attached to the service provider/retailer."). Five items were adapted to this study's context, based on Buttgen et al. (2012), to measure the relatively new *motivation of COCBs* construct

such as “I am willing to behave just according to the rules and policies of the service provider/retailer.” (reverse order).

Recently, some studies have developed scale items to measure COCBs in a wide variety of contexts (Groth, 2005; Bove et al., 2009; Yi and Gong, 2013). Groth (2005) suggests that recommendations, helping other customers, and providing feedback are components of COCBs. Bove et al. (2009) argue that there are eight dimensions that compose COCBs, including positive word-of-mouth, suggestions, policing of other customers, voice, and flexibility or sportsmanship. Of these dimensions that represent general COCBs, suggestions, flexibility, and voice behavior were selected as appropriate dimensions for this study because they are related to COCBs in the service recovery situation. *Suggestions* refer to consumers’ actions to provide service providers with ideas and skills, and *flexibility* represents customers’ behaviors to adapt to occasions beyond service providers’ control (Bettencourt, 1997). *Voice behavior* pertains to customers’ complaint actions to service providers when problems occur, to offer the opportunity to resolve problems (Singh, 1988). Six items from Bove et al. (2009), five items from Garma and Bove (2009), and four items from Bove et al. (2009) were used to assess suggestions, flexibility, and voice behavior dimensions of *actual COCBs in service recovery*, respectively.

RESULTS

Reliability and Validity Testing

Exploratory factors analysis (EFA) was performed to identify underlying factors comprising *COCBs in service recovery* by using principal component analysis with varimax rotation. The analysis produced three factors: suggestions, flexibility, and voice behaviors. The five items with a low factor loading ($<.40$) or with high cross-loading values were dropped. After the deletion process, the total variance of the three factors was 85% with an Eigenvalue greater than 1.0 for all factors. In addition, the Cronbach’s alpha of each factor exceeded .70 (i.e., suggestions: $\alpha=.95$; flexibility: $\alpha=.85$; voice behavior: $\alpha=.90$), representing good internal consistency among items within each dimension and showing acceptable reliability.

To precisely confirm the dimensionality of the newly-developed scale of COCBs in service recovery, a confirmatory factor analysis (CFA) was employed. CFA offers a more rigorous explanation of dimensionality as compared to EFA (Olorunniwo, Hsu, and Udo, 2006). Using Amos 5.0 software, a CFA was implemented not only to assess suitability of the items for measuring the three constructs but also to indicate the relationship between the indicators and their associated factor dimensions. Confirming the EFA result, all of the ten indicators had acceptable item reliability ($\geq .50$). In addition, the result revealed that construct reliability (CR) ($\geq .70$) and average variance extracted (AVE) ($\geq .50$) of all three factors were satisfied with recommended standards for reliability and unidimensionality (see Table 1). These results confirmed the internal consistency of indicators measuring each construct and validity of each construct to measure its respective construct. If AVE is greater than the squared correlation coefficient between factors, the discriminant validity is satisfactory. All three dimensions of *COCBs in service recovery* were satisfied with this criterion indicating sufficient discriminant validity (see Table 2).

TABLE 1
EFA AND CFA RESULTS: COCBS IN SERVICE RECOVERY

Factors/Items	EFA			CFA		
	Factor 1	Factor 2	Factor 3	Item Reliability	Construct Reliability	AVE
Factor 1: Suggestions						
• V1	.83			.75		
• V2	.90			.89		
• V3	.82			.81	.96	.81
• V4	.88			.88		
• V5	.81			.74		
Factor 2: Flexibility						
• V6		.90		.75	.87	.76
• V7		.89		.78		
Factor 3: Voice behavior						
• V8			.84	.87		
• V9			.85	.65	.90	.76
• V10			.84	.76		
Eigenvalue	4.02	1.86	2.62	Model fit	$\chi^2_{(31)}=42.55$	
Variance %	40.16	18.63	26.23		CFI=.98	
Cronbach's alpha	.95	.85	.90		TLI=.97	
					SRMR=.03	
					RMSEA=.08	

Note: AVE=average variance extracted, CFI=Comparative Fit Index, TLI=Tucker-Lewis Index, GFI=Goodness-of Fit Index, SRMR=Standardized Root Mean Square Residual, RMSEA=Root Mean Square Error of Approximation

TABLE 2
CONVERGENT AND DISCRIMINANT VALIDITY: COCBS IN SERVICE RECOVERY

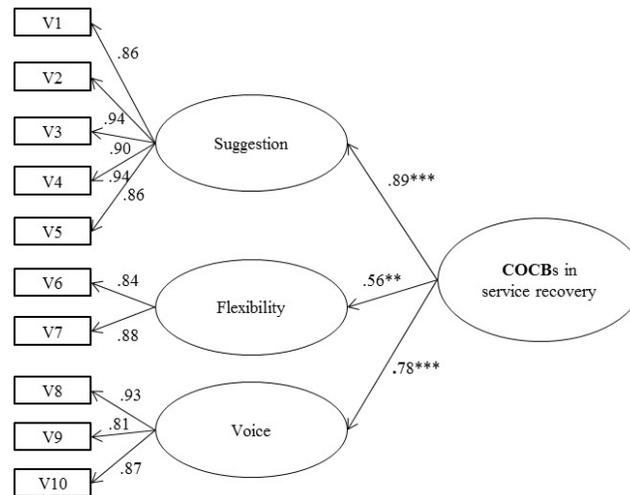
	1	2	3
1. Suggestions	.81	.25	.19
2. Flexibility		.76	.49
3. Voice behavior			.76

Note: The numbers in diagonal line are the average variance extracted (AVE) by each construct. The numbers above the diagonal are the squared correlation coefficients (SIC) between the constructs.

A second-order CFA was conducted in an effort to assess the reliability and validity strength of the *COCBs in service recovery* construct. All dimensions of the *COCBs in service recovery* construct were found to be significantly and positively related to the second-order construct as revealed by good model

fit (see Figure 2). Thus, the results support that suggestions, flexibility, and voice behavior dimensions serve as indicator variables for the corresponding second-order factor, *COCBs in service recovery*.

FIGURE 2
SECOND-ORDER CFA OF COCBS IN SERVICE RECOVERY



Note: ***p<.001, **p<.01; Model Fit: $\chi^2=42.545$, $df=31$, CFI=.979, TLI=.970, SRMR=.035, RMSEA=.078

For the study's remaining variables (i.e., *CPOS*, *CPOJ*, *affective commitment*, and *motivation of COCBs*) exploratory factor analysis (EFA) was conducted. After deleting items with low factor loadings (<.40) from the EFA results, six items for *CPOS*, five items for *CPOJ*, three items for *affective commitment*, and two items for *motivation of COCBs* were used to test the hypotheses. Reliability of each construct was acceptable (*CPOS*: $\alpha=.92$; *CPOJ*: $\alpha=.93$; *affective commitment*: $\alpha=.89$; *motivation of COCBs*: $\alpha=.83$). To assess convergent and discriminant validity, CFA was again conducted by following the same procedure used with *COCBs in service recovery*. Reliability and unidimensionality of each construct were confirmed, as shown in the Table 3. The CFA result revealed good model fit to the data as follows: $\chi^2=367.56$, $df=25$, CFI=.92, TLI=.91, RMSEA=.08.

TABLE 3
CONVERGENT AND DISCRIMINANT VALIDITY: SOCIAL EXCHANGE-BASED ANTECEDENTS AND COCBS

	1	2	3	4	5
1. CPOS	.68	.74	.22	.12	.10
2. CPOJ		.72	.13	.03	.06
3. Affective commitment			.75	.37	.26
4. Motivation of COCBs				.71	.25
5. Actual COCBs in service recovery					.58

Note: The numbers in diagonal line are the average variance extracted (AVE) by each construct. The numbers above the diagonal are the squared correlation coefficients (SIC) between the constructs.

Hypotheses Testing

According to Kline (2010), an ideal sample size-to-parameters ratio for structural equation modeling (SEM) is 20:1. Therefore, due to the study's sample size, regression analysis was considered the most appropriate method to test hypotheses.

H1 predicted that *motivation of COCBs* has a positive influence on actual *COCBs in service recovery*. As indicated in Table 4, the beta weight for *motivation of COCBs* influence on actual *COCBs in service recovery* was statistically significant, thereby supporting *H1* ($r^2=.15$, $p<.01$). *H2* predicted a positive relationship between *affective commitment* to a firm and *motivation of COCBs*. As expected, the result revealed *affective commitment* is significantly positively associated with *motivation of COCBs* ($r^2=.32$, $p<.001$), supporting *H2*. The result of regression also showed that *CPOS* and *CPOJ* are positively related to *affective commitment* ($r^2=.24$, $p<.001$; $r^2=.14$, $p<.01$, respectively), supporting both *H3* and *H4*.

TABLE 4
REGRESSION RESULTS

Hypothesis	Dependent variable	Independent variable	R ²	F value	β	T-value
H1	Actual COCBs in Service Recovery	Motivation of COCBs	.15	10.87	.39	3.30**
H2	Motivation of COCBs	Affective Commitment	.33	29.51	.57	5.43***
H3	Affective Commitment	CPOS	.24	18.48	.49	4.30***
H4	Affective Commitment	CPOJ	.13	9.24	.37	3.04**

Note: *** $p<.001$, ** $p<.01$

In addition to regression analysis, we decided to subject the data to bootstrapping analysis in order to obtain estimates of the standard errors for the coefficients in regression (Anderson and Pomfret, 2000; Fattouh, Scaramozzino, and Harris, 2005). According to Simon and Usunier (2007), bootstrapping analysis helps researchers not only assess stability of parameters but also have more accurate parameters. Moreover, bootstrapping is particularly useful in cases of small sample sizes. Thus, simulation analysis through bootstrapping process with 1,000 iterations was conducted to evaluate the stability of parameter estimates and to obtain improved standard error estimates (Efron and Gong, 1983). The bootstrapping analysis reveals that its resultant estimates do not significantly differ from those based on the parent sample. Thus, tests of all hypotheses were systematically confirmed via regression as well as bootstrapping analyses.

TABLE 5
REGRESSION ANALYSIS WITH 1,000 BOOTSTRAPPING REPLICATIONS

Hypothesis	Dependent variable	Independent variable	β	S.E.	Lower	Upper	P-value
H1	Actual COCBs in Service Recovery	Motivation of COCBs	.31	.11	.10	.53	.009
H2	Motivation of COCBs	Affective Commitment	.57	.10	.38	.79	.001
H3	Affective Commitment	CPOS	.71	.19	.32	1.10	.001
H4	Affective Commitment	CPOJ	.52	.18	.19	.90	.005

Note: Bias-correlated accelerated percentile method 95% confidence intervals

DISCUSSION AND IMPLICATION

This research provides important empirical support in exploring the antecedents of COCBs in service recovery. As social exchange theory in the organizational literature suggests, when people perceive support and/or justice from the organization, they are more likely to feel affective commitment toward the organization. Moreover, the findings of this study reveal that consumers' affective commitment toward the service firm/retailer had a positive impact on their motivation to perform voluntary behaviors in general, which, in turn, encouraged them to co-participate, with the organization, a resolution to the firm's service deficiencies.

In addition, this study suggests that there are three modes by which consumers participate with firms in resolving the service failures via their suggestions, flexibility, and voicing behavior. Especially, when service failure occurs, customers may have more opportunities to participate in tasks or activities that help the service provider or retailer. Thus, the findings of the current study revealed that customers voluntarily participate in organizational tasks when service failure occurs, providing service providers with constructive ideas and/or skills (suggestions), understanding occasions beyond service providers' control (flexibility), and informing service providers when customers have a problem or complaint (voicing behavior).

Given these empirical findings, even though the findings of current study were confirmed by the bootstrapping analysis, future research should replicate this study with a larger customer sample in order to build generalizability by confirming the consistency of the finding. In addition, further research can be conducted in different situations than service recovery to investigate whether other dimensions of COCBs (e.g., helping other customers and benevolent acts of service facilities) are applicable in different contexts. By applying a theory from organizational literature to the customer context, this study found CPOS and CPOJ as the antecedents of actual COCBs in service recovery. Moreover, the findings show that the impact of CPOS and CPOJ on actual COCBs in service recovery is mediated by affective commitment and COCBs' motivation. In addition to these findings, it is possible that future research can explore additional constructs of COCBs including antecedents, mediators, and moderators.

Given the results, marketers should think of their customers as partial employees to provide value to the organizations in regards to their ability to provide knowledge or skills in resolving service failures. Additionally, marketers need to understand that COCBs can be derived from affective commitment through perceived support and/or justice. Thus, they should maintain relationships with customers accordingly in order to facilitate customers' positive perceptions and affect.

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