

EXPLORING ANTECEDENTS AND CONSEQUENCES OF CUSTOMER  
ORGANIZATIONAL CITIZENSHIP BEHAVIORS (COCBs) THROUGH CUSTOMER  
CO-CREATION VALUATION

by

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A Dissertation Submitted to the Faculty of the

SCHOOL OF FAMILY AND CONSUMER SCIENCES

In Partial Fulfillment of the Requirements

For the Degree of

DOCTOR OF PHILOSOPHY

In the Graduate College

THE UNIVERSITY OF ARIZONA

2015

THE UNIVERSITY OF ARIZONA  
GRADUATE COLLEGE

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## ACKNOWLEDGEMENTS

I would like to extend my gratitude to several of the people who have helped me to reach the end of this long journey. First, my sincere appreciation goes to my committee chair, Dr. Sherry L. Lotz. I am very fortunate to have had her mentoring, as well as her academic, professional, and personal guidance. I know that I could not have completed this research without her. I also wish to express my deep gratitude to my committee members, Dr. Mary Ann Eastlick and Dr. Matthias Mehl, for their advice and suggestions regarding my research. This interdisciplinary project could not have gone so smoothly without the help of all these experts.

I am also grateful to my friends and colleagues whose encouragement helped me to persevere in finishing this dissertation: Dr. Charles Aaron Lawry, my friend and co-author; Robert Lanza, who provided technical support and ideas and without whose expertise this research could not have been brought to fruition; Tony Stovall and Silvia Van Riper, who shared their support, friendship, and interesting research ideas. I am very grateful to Dr. Miran Kim and Dr. Seonghee Lee for their encouragement and prayers. My special gratitude also extends to Joseph Stefani and Peggy Ford. Their professionalism not only improved the quality of this dissertation but also helped me to enjoy the journey.

I want to thank my father, mother, and two sisters for their unconditional love, support, and prayers that helped me to finish this marathon without giving up, even during the hardest times. I especially thank my husband, Dr. Sang-Hyuck Park, and my precious little son, Haeon Elias Park, for always being there for me. Their presence helped make this journey possible and enjoyable. Finally, I offer my sincere gratitude to all those others who supported me in various ways, large and small, during this adventure.

## **DEDICATION**

To the one who gave us warm and sweet heart to help others

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## **ABSTRACT**

Service-dominant logic views a customer as a proactive entity who co-creates value through collaboration with other entities in a value creation network. Working from that perspective, the current study investigated antecedents and consequences of customer organizational citizenship behaviors (COCBs), which refers to voluntary and discretionary behaviors that help marketers such as service organizations. Employing social exchange theory and personality concepts, this study set out to explain factors that lead customers to perform COCBs for their service organizations. In addition, this study conceptualized COCB motivation as an antecedent of COCB. Simultaneously, customer co-creation value, satisfaction, and behavioral intentions were proposed as consequences of COCBs in the theoretical model.

With an effort to fill the research gap pertaining to lack of scale items that measure COCBs, COCB motivation, and customer co-creation value, the present study employed a mixed methods approach based on both qualitative and quantitative research design. For the COCB and customer co-creation value construct, this study not only confirmed the measurability of the existing scale items but also found additional items, especially focusing on the offline service context. Additionally, scale items that measure COCB motivation, a construct that is newly proposed here, were developed and were categorized into four dimensions that represent COCB motivation—Self-enhancement, Personal principles, Desire to support the service organization, and Perceptions of the service organization's past performance.

Data for hypotheses testing were collected via a web-based self-administered survey. Three versions of a questionnaire, based on three types of service organization,

were used to elicit consumers' responses from a variety of service types. A total of 692 general U.S. consumers, who had had face-to-face interaction with service organizations in the prior six months, responded to the survey. The proposed hypotheses were tested using structural equation modeling. In addition, to confirm whether there were differences in the relationships between proposed constructs among three types of service organizations, post-hoc analysis was conducted through multi-group analyses.

The results of this study demonstrated the positive relationship between COCB motivation and COCBs. The results also provided support to the view that social exchange-based antecedents have strong positive impact on COCB motivation, and prosocial personality and proactive personality are important personality traits that stimulate customers to voluntarily participate in activities and/or tasks of the service organization. In addition, this study found that even though customers who participate in COCBs can perceive three types of co-creation value—economic co-creation value, individual co-creation value, and social co-creation value, they may be satisfied with service outcome and frontline employees only when they perceive individual co-creation value and social co-creation value. Furthermore, the findings of this study confirmed the spillover effect of transaction-specific satisfaction on overall satisfaction, which positively influences behavioral intentions such as intention to continue the relationship with the service organization and intention to recommend to other customers.

Finally, the results of the post-hoc analysis revealed that there are no differences in most parts of the theoretical model across the three types of service organization except for four relationships—the impact of COCBs on social co-creation value, the impact of satisfaction with service outcome on satisfaction with service organization, the

impact of satisfaction with frontline employees on satisfaction with service organization, and the impact of satisfaction with service organization on intention to recommend to other customers. Theoretical implications and managerial implications are discussed.

## **CHAPTER 1**

### **INTRODUCTION**

The marketing discipline has recently 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, 2004a). 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, 2004a). 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 relationships with customers, and effectiveness of marketing strategies (Dong, Evans, and Zou, 2008; Roggeveen, Tsiros, and Grewal, 2012). Therefore, understanding customers as value co-creators not only allows marketers to obtain more benefits in various aspects of the customer relationship but also helps researchers to suggest a variety of research models in the marketing and consumer behavior literature.

Despite this potential importance of COCBs in marketing activities, extant studies have not sufficiently provided a theoretically grounded explanation and empirical evidence for the role of COCBs or identified specific factors to guide managerial actions. More specifically, little empirical research has investigated not only what factors

influence COCBs but also how COCBs influence value co-creation, and consequently, customer attitudes and behaviors (Bove, Pervan, Beatty, and Shiu, 2009; Chan Yim, and Lam, 2010). Given these serious research gaps in the literature, the present research attempts to investigate 1) factors leading to customers' participation in discretionary activities such as COCBs for a service organization, 2) how COCBs influence customers' perceived values: the perceived value regarding the service they receive after COCBs (quality of service outcome), the perceived value of fulfillment of their participating actions in the service delivery process (enjoyment and achievement), and the perceived value of their social interaction with the service organization, and 3) whether customer value co-created through COCBs results in customer satisfaction and, in turn, positive behavioral intentions for the organization.

The following sections of this chapter will specifically present the purposes and significant contributions of the current proposed research by addressing research gaps. Chapter 2 will begin with a brief literature review of service-dominant logic and value co-creation as an overarching background of the current research, followed by the overview of the present state of COCB research. In addition to a review of the relevant literature, the remaining sections of Chapter 2 will also introduce the research regarding theories and concepts that will be employed to support this study. Chapter 3 will provide a theory-based and its development from a variety of previously-established conceptualizations—social exchange theory, personality, and customer co-creation value—and hypotheses supported by theoretical justifications from the extant literature. Chapter 4 will address the scale development through qualitative research, including sampling, data collection, data analysis, and results of the qualitative research. Chapter 5



will outline research methodology for hypotheses testing based on quantitative research, including study context, sampling and data collection, questionnaire development, measurement, and data analysis and results. Lastly, Chapter 6 will provide a discussion of the current study's findings, implications, and limitation and ideas for future research.

### **Purpose of the Study**

One of the goals of this examination is to measure actual COCBs, that is, those behaviors that customers in reality perform when organizations such as retailers and service providers need customer help. Previous research has mainly focused on intention or willingness to perform COCBs, rather than actual COCBs (Bove et al., 2009). However, the current study proposes to measure actual COCBs by conceptualizing the actual COCB as a consequence of COCB motivation, which is the psychological process that causes the arousal, direction, and persistence of COCBs (Mitchell, 1982). To date, researchers have put continuing effort into identifying scale items to measure actual COCBs (Groth, 2005; Garma and Bove, 2011; Yi and Gong, 2012). However, due to a lack of validity confirmation through many repeated studies, there has existed a call for replication and application to validate the existing scale items (Garma and Bove, 2011; Yi and Gong, 2012). In line with the research trend, the present study attempts to ascertain if there are additional items to measure COCBs beyond the existing scale items through a qualitative study approach. By measuring actual COCBs, with combined measures from both the existing and newly-developed items, the current study strives to confirm four dimensions—feedback, advocacy, helping, and tolerance—of COCBs, which have recently been developed by researchers (see Yi and Gong, 2012). Additionally, there are

no extant scale items to measure COCB motivation for the service context. Borrowing the measures from prior studies that have been conducted in other contexts and developing new items from a qualitative pretest, the present study proposes the scale items that measure COCB motivation and confirms the effect of COCB motivation on actual COCBs.

Along with theoretical emphasis on the importance of COCBs that can create value through customer participation as the primary goal, the present study investigates the potential antecedents of COCBs. Most research in organizational citizenship behaviors (OCBs) has been performed in organizational settings such as employees' voluntary or extra-role behaviors for their organizations. The studies have found employees' positive perceptions toward their organization lead to OCBs as based on social exchange theory (e.g., Organ, 1990; Carmeli, 2005). Considering customers as partial employees who can create value for their organizations, customers in the present study are characterized as co-producers who contribute inputs much like employees, and who influence the organization's productivity (Bowen, Schneider, and Kim, 2000).

Personality is considered as another antecedent of COCBs, given that much empirical evidence showing that personality is an important predictor that leads to certain behaviors (Tupes and Christal, 1961). Many scholars in organizational psychology have demonstrated the influence of personality on employees' OCBs and subsequent consequences such as turnover intention, organizational loyalty, and improved performance (Bettencourt, Gwinner, and Meuter, 2001, Wright and Sablinski, 2008). This study provides empirical support and suggests the possibility of customers' citizenship behaviors for organizations by applying social exchange theory and

personality concepts from the organizational and social psychology literature to the examination of customer behaviors. Thus, social exchange theory and personality concepts are employed to explain predictors of COCBs.

Even though researchers have argued that COCBs influence value co-creation (Auh, Bell, McLeod, and Shih, 2007), little existing research has established empirical evidence to support the theoretical argument and the explanation. As its third purpose, the current study investigates customer co-creation value as an outcome of actual COCBs. Especially, the present research defines customer co-creation value as perceived customer value based on their voluntary participation in activities or processes of service delivery. By integrating previous research in the customer value literature, three dimensions—economic, individual, and social co-creation value—are identified as the components of customer co-creation value obtained from COCBs. The feasibility of this theoretical rationale will be confirmed with a mixed-methods approach that is based on both a qualitative and quantitative research design. This research approach will also help to obtain and confirm existing indications for additional items that measure customer co-creation value.

Lastly, the present study examines whether customers' perceptions of co-created value influences their attitudes and behaviors (i.e., customer satisfaction and future behavioral intentions). To achieve these goals of the current research, the following overarching research questions will be addressed:

1. Are actual COCBs in the offline, face-to-face service context composed of four dimensions (i.e., feedback, advocacy, helping, and tolerance)?

2. Do social exchange-based consumer attitudes toward the service organization and personality lead customers to perform actual COCBs in the offline service context (e.g., face-to-face interactions between customers and frontline employees) via motivation to elicit COCBs?
3. Do actual COCBs influence customers' perceptions of co-creation values – economic, individual, and social co-creation values – in the offline, face-to-face service context?
4. Do customer co-creation values (i.e., economic, individual, and social co-creation values) influence overall satisfaction with the service organization through transaction-specific satisfaction (i.e., satisfaction with service outcome and satisfaction with frontline employees), resulting in customers' behavioral intentions (i.e., intention to continue the relationship with the service organization and intention to recommend it to others)?

### **Significance of the Study**

Along with an effort to conceptualize COCBs, researchers have recently established scales that measure COCBs (Groth, 2005; Yi and Gong, 2012). However, most of these scales have focused on intention or willingness to perform COCBs. The present study develops additional scale items that measure actual COCBs in the offline service context, which features face-to-face interaction. The scale development, combining both the extant measures and additional items, allows confirming an instrument that measures actual COCBs and the feasibility of COCB sub-dimensions. Additionally, there are to date no solid scale items that measure COCB motivation for the

service context. Thus, the present study also develops scale items to measure COCB motivation by adapting mixed research methodology including qualitative and quantitative studies. Additional items for COCBs and newly-developed scales to measure COCB motivation are important and meaningful contributions to literature.

By integrating a variety of conceptualizations from the organizational and social psychological literature, this study also provides a significant contribution and research insights to the marketing and consumer behavior literature. In other words, this study attempts to apply the issues related to organizational behaviors (employee's OCBs) to the customer behavior concept (COCBs). Specifically, considering customers as substitutes for employees, social exchange theory will be applied to explain factors influencing customers' voluntary participation in organizational tasks such as COCBs. In line with this approach, the literature on the influences of employees' personality on voluntary actions and performances will be also applied to this study. Based on the application of the concepts and theories that have been developed in different disciplines, the present study contributes to interdisciplinary research and creates new insights into the marketing and customer behavior literatures.

Moreover, most studies in the current COCB literature have focused on the role of customer attitudinal perceptions (e.g., commitment, satisfaction, and loyalty) concerning customer participation or cooperation (Bettencourt, 1997; Bove et al., 2009; Auh et al., 2007). In other words, while there has been considerable focus on the effects of procedural justice and commitment on employee OCBs, individual differences or personality traits have received relatively less attention as predictors of prosocial behaviors such as COCBs. According to Langeard, Bateson, Lovelock, and Eiglier

(1981), whether customers choose to participate in an activity or not may depend on customer characteristics. This variation affords us the opportunity to investigate the influences of customer personality on willingness to perform COCBs and on actual COCBs (Bowen, 1990). Therefore, this study contributes to a better understanding of the individual differences or personality traits that may trigger these behavioral differences. As a result, the current study suggests that personality traits are important antecedents by separating the antecedents of COCBs into two categories: social exchange-based antecedents and personality-based antecedents.

Even though participating behaviors or COCBs are the processes or activities for value co-creation, there is a lack of studies that empirically investigate the link between actual COCBs or customer participation and customer value creation except those of Dong et al. (2008) and Chan et al. (2010). This paucity in the research may be due to the difficulty of and limitations in measuring behaviors and value perceptions based on customers' actual experiences. Due to these constraints, extant research has focused on customer intentions to engage in COCBs or customer participation, rather than actual behaviors. Thus, by measuring actual COCBs, this study is expected to provide better and more specific explanations and evidence of the impact of COCBs on customer co-creation of value compared to research measuring intention to perform COCBs.

Past studies related to customer coproduction have been centered on the importance of customer participation in the service process by focusing on economic benefits for the company and from the company's viewpoint. However, this study attempts to focus on value co-creation from the customer perspective by examining the connection between actual COCBs and various dimensions of perceived customer value,

named customer co-creation value. According to the service-dominant perspective (Vargo and Lusch, 2004b), because the nature of customer coproduction is inherently customer-centered and relational, value co-creation through COCBs implies that the created value should provide benefits to both the customer and the organization. Therefore, this study will provide a significant contribution in that it investigates co-created value perception from the customer perspective as well as the company's perspective.

Additionally, the present study investigates customer satisfaction as a positive outcome of COCBs by viewing it as two conceptualizations: transaction-specific satisfaction and overall satisfaction. Even though these two aspects of satisfaction have been solidly conceptualized by much literature, it is surprising that relatively little research has empirically investigated customer satisfaction by separating the two aspects. To fill this research gap, the current study examines customer satisfaction by dividing it into multi-dimensions: satisfaction with service outcome, satisfaction with frontline employees, and overall satisfaction with the service organization. Moreover, although most prior research on COCBs has investigated either antecedents or consequences, no study has yet integrated these two aspects into one conceptual model by testing actual COCBs. To my knowledge, thus, the present study contributes to the literature as the first study that empirically examines both antecedents and consequences of COCBs simultaneously.

In addition to the significance to academicians, the current study offers implications for managerial practice in the service industry. Practitioners in the service industry will learn important factors that stimulate customer voluntary participation in their events or tasks. Of course, service organizations cannot compel customers to

participate in voluntary activities even though they need help or suggestions from customers. Moreover, voluntary or discretionary willingness may make individuals provide more information or behave more eagerly and proactively. Thus, the findings of this study will provide guidance to service marketers on how to maintain the relationship with their customers and how they should approach individual differences.

Practitioners should consider the importance of customer co-creation value through COCBs because it may also provide co-created value to their organization. Future behaviors of customers who are satisfied through value perceptions based on COCBs may enable service marketers to reap potential profits. For example, if customers recommend the service organization to other customers, that behavior may play the role of effective advertising, which creates new customers. Considering customers as partial employees may allow practitioners to generate not only benefits through customer voluntary behaviors (e.g., suggesting a new idea) but also bring to the organization new customers through their positive behaviors. Thus, when the practitioners have a better understanding of the mechanism and importance of value co-creation, they may have helpful 'partial employees' who pay into the organization, though they are not paid by the organization.



## **CHAPTER 2**

### **REVIEW OF LITERATURE**

Chapter 2, the review of literature, presents the studies of many researchers in a variety of disciplines such as marketing, customer behavior, and organizational psychology. The chapter begins with research background including explanation of service-dominant logic and value co-creation followed by a research overview of COCBs.

#### **Research of Service-Dominant Logic and Value Co-Creation**

According to Lusch, Vargo, and Wessels (2008), value creation in the traditional marketing environment has been focused on maximization of profit and utility, called ‘goods-dominant’ logic, which considers goods as the key goal of exchange. Efficient production of goods is the basis by which to measure value that comes from a change in form through the manufacturing process (Lusch et al., 2008). Given the strong focus on goods-dominant logic, most studies in the marketing and economics disciplines have ignored issues pertaining to service. However, recently, researchers have suggested a ‘service-dominant’ logic as a framework of value creation based on service provision, rather than goods production (Vargo and Lusch, 2004a; Vargo and Lusch, 2004b). In service-dominant logic, goods can be considered as vehicles to transfer resources among parties, rather than value per se (Lusch et al., 2008). Vargo and Lusch (2004a) note that “goods are distribution mechanisms for service provision,” which is one of their eight foundational premises. From the viewpoint of service-dominant logic, value can be derived in use (value-in-use), which means the incorporation and application of

resources. However, goods-dominant logic proposes that value is determined in exchange, based on units of output and price, value-in-exchange (Vargo, Maglio, and Akaka, 2008).

In addition, Lusch et al. (2008) argue that service-dominant logic implies ‘resourcing’ inputs for a continuing process of value-creation, rather than ‘producing’ outputs with value. This resourcing results in value co-creation through collaboration or incorporation with all parties in a value creation network, and through learning from customers (Vargo and Lusch, 2004a). This implies that a service-dominant logic in marketing is a customer-centric viewpoint and market driven concept. Considering customers as co-producers, one of the eight foundational premises of marketing suggested by Vargo and Lusch (2004a), Kalaighnam and Varadarajan (2006) emphasize the importance of customer participation in value co-production and for effectiveness of marketing strategy. Jaworski and Kohli (2006) point out that both firms and their customers can be engaged in the learning process, which can recognize the needs of each part when co-creating the voice of the customers. Therefore, service-dominant logic, a newly emerging perspective in marketing, reflects a key concept and foundation of relationship marketing and service marketing by converting a paradigm that has served as a foundation of economics and marketing. Service-dominant logic also leads the transition of perspectives in the marketing discipline from the industrial era to the service era by emphasizing the importance of value co-creation with marketing entities such as buyers, sellers, customers, employees, and organizations (Vargo and Lusch, 2006).

Simultaneously, thus, service researchers pay attention to value creation based on service provision by emphasizing the importance of the service delivery process and

value co-creation (Dong et al., 2008; Roggeveen et al., 2012). As one of the methods of value co-creation, the importance of customer participation and customer co-creation behaviors, such as COCBs, has been emphasized because these behaviors provide positive influences on both customers and organizations. For example, a long-term relationship, experiences in participating in a specific event, and information from the partner can lead to positive outcomes and co-created value that can be obtained from customer participation behaviors (Dong et al., 2008; Yi and Gong, 2012). Given this notion, COCBs can be understood as customer behaviors that reflect an important shift in the marketing discipline, from goods-dominant logic to service-dominant logic, which views customers as proactive value co-creators. Recently, thus, ideas regarding COCBs have shed light on the role of customers as proactive value co-creators and provided considerable insights into the domain of recent research in marketing and customer behavior.

### **Research of Customer Organizational Citizenship Behaviors (COCBs)**

#### **Applying Employee OCBs to COCBs**

In the organization literature, many researchers have conducted investigations to describe how employees reciprocate positive behaviors that result in positive consequences for the organization when they perceive a sense of obligation to help the organization and have concern for the welfare of their organization (Lavelle, Rupp, and Brockner, 2007), called organizational citizenship behaviors (OCBs). In the service literature, researchers have applied the concept of OCBs in order to explain COCBs by considering that a customer is a partial employee and value co-creator (Vargo and Lusch, 2004a). A variety of terminology has been used to describe COCBs, including customer

discretionary behavior (Ford, 1995), customer voluntary performance (Bettencourt, 1997), coproduction (Gruen, Summers, and Acito, 2000), customer participation (Cermak, File, and Prince, 1994), and customer extra-role behaviors (Ahearne, Bhattacharya, and Gruen, 2005). Given the various terminologies and constant efforts at conceptualization, COCBs are in general viewed as the customer's extra-role or voluntary performances, which refer to discretionary behaviors beyond in-role or required performances for value co-creation (Bove et al, 2009; Groth, 2005; Yi and Gong, 2008).

### **Conceptualization of Customer Participation and COCBs**

Groth (2005) points out that there have existed mixed and ambiguous usages in conceptualizations and definitions of COCBs and customer participation or coproduction. In other words, customer participation or coproduction is defined as “resources and actions provided by customers for the production and/or delivery of service” by some researchers (see Rodie and Kleine, 2000; Bettencourt, Ostrom, Brown, and Roundtree, 2002; Groth, 2005 p.9), whereas Gruen et al. (2002) consider customer coproduction as extra-role behaviors or actions by separating it from customer participation. Along with more efforts and elaborations on the conceptualization of COCBs, recent researchers argue that COCBs can be considered as specific and extended forms of customer participative behavior in the value creation of the core offering (Lusch and Vargo, 2006). More specifically, some researchers have distinguished two types of customer value co-creation behaviors: customer participation or coproduction and COCBs (Groth, 2005; Yi and Gong, 2012). While customer participation or coproduction refers to in-role or required actions, which are essential 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; Yi and Gong, 2012). As mentioned in the prior section, COCBs are defined here 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).

### **COCB Dimensions**

Given this conceptualization of COCB, some researchers have identified dimensions or forms of COCBs (Bettencourt, 1997; Groth, 2005; Garma and Bove, 2011; Yi and Gong, 2012). Bettencourt (1997) identifies that loyalty, cooperation, and participation are components that measure customer voluntary performance by proving that customer commitment through perceived organizational support and that is positively related to customer voluntary behaviors. Groth (2005) suggests that three dimensions—recommendations, helping customers, and providing feedback—constitute customer citizenship behavior by distinguishing it from customer coproduction in the Internet shopping context. More recently, by focusing on the service encounter context, Yi and Gong (2012) develop scale items to measure customer value co-creation behaviors including customer participation (in-role) behavior and customer citizenship (extra-role) behavior. The finding shows that customer participation behavior includes information seeking, information sharing, responsible behavior, and personal interaction, whereas customer citizenship behavior includes feedback, advocacy, helping, and tolerance (Yi and Gong, 2012).

Of these dimensions that represent COCBs, *feedback* refers to consumers’ actions to provide service organizations with not only ideas and skills but also solicited and unsolicited information, by which customers help the service organization to enhance the

service creation process (Groth, Mertens, and Murphy, 2004). *Advocacy* represents customers' behaviors in recommending the service organization to other customers such as friends and relatives (Groth et al., 2004). Additionally, *helping* refers to customer behaviors targeted at aiding others (Yi and Gong, 2012). Because the present study focuses on the relationship between a customer and service organization in the service creation process, behaviors that help the service organization are measured rather than those assisting other customers. Lastly, *tolerance* refers to customer actions that understand the service organization and reflect patience when the provided service does not meet the customer's expectations (Yi and Gong, 2012). Because COCBs have not been subjected to rigorous investigation to date, further research is necessary to validate the dimensions of COCBs (Yi and Gong, 2012).

### **Determinants and Consequences of COCBs**

Extant empirical studies have shown a variety of determinants that lead to individual's voluntary behaviors, which include affective commitment based on perceived support and perceived justice (Sweeney and McFarlin, 1993; Bettencourt, 1997; Keh and Teo, 2001), personality traits such as conscientiousness and agreeableness (Borman, Penner, Allen, and Motowidlo, 2001; Podsakoff, MacKenzie, Paine, and Bachrach, 2000), prosocial personality (Penner, 2002; Finkelstein, Penner, and Brannick, 2005), and proactive personality (Crant, 2000; Li, Liang, and Crant, 2010). However, most empirical evidence has been derived from employees' voluntary behaviors or OCBs in the organizational contexts except for some recent research, which has examined antecedents or consequences of COCBs (Groth, 2005; Bove et al., 2009; Yi and Gong, 2008). Bove et al. (2009) demonstrate that positive perceptions toward service workers

(e.g., commitment and benevolence) influence COCBs. In addition, Yi and Gong (2008) also find that positive affect through perceived justice about the service organizations is positively related to COCBs. In other words, if customers perceive fair treatment from an organization, they might have positive feelings or emotions toward the organization, resulting in high probability of COCBs.

Similarly, there have been only a few empirical studies about the consequences of COCBs, focusing on customer satisfaction (Chan et al., 2010, Dong et al., 2008), perceived value (Dong et al., 2008), and financial benefits (Auh et al., 2007). As shown, researchers in the marketing and service literature have recently paid attention to empirical studies of COCBs. This recent research has also emphasized the need for more replications to confirm factors associated with COCBs and the applications of scale items to show their validity. As an effort to fulfill this literature gap, the present study targets empirically testing the proposed theoretical model, which simultaneously integrates both antecedents and consequences of COCBs. In addition, the present study will become one of the recent studies that confirm validation of the COCB measure instrument and existence of additional new items. Continuing such work, this study shall be a very important contribution to the literature.

As OCB research is grounded in the organizational psychology area, the concept of COCBs is based on social exchange theory (Blau, 1964), which was developed to explain the relationship between employees and employers (or their organization) in the organization literature. In addition, many studies that have explored determinant factors of OCBs and COCBs emphasize the importance of personality traits (Podsakoff et al., 2000; Li et al., 2010). In order to understand how the social exchange concept and

personality explain COCBs in the service context, the following part is an overview of research in social exchange theory and personality.

### **Research of Social Exchange Theory and Personality**

#### **What is a 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 on 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 on organization-employee relationship (Bolino, Turnley, and Bloodgood, 2002) and employee organizational citizenship behaviors (Organ, 1990). Rupp and Cropanzano (2002) state that individuals 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 et al., 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. Researchers have theoretically and empirically suggested that customers' positive attitudes toward the organization (i.e., justice perception, organizational support, and affective commitment) positively influence customers' discretionary participation (Ennew and Binks, 1999; Keh and Teo, 2001; Bove et al., 2009). Customer attitudes towards the service organization should be based on the previous interaction between customers and the organization. However, considering another individual factor, which does not require the previous relationship between the two parties, the present research also proposes the role of personality that provokes COCBs.

### **What is a Personality?**

Personality is defined as “the unique organization of factors which characterize an individual and determine his pattern of interaction with the environment” (Kleinmuntz, 1967, p. 9). According to scholars in the field of personality, personality is considered as a factor to influence the association between an individual's attributes and his/her

behaviors (Weiss and Adler, 1990). In addition, Buss (1987) argues that personality affects the environments that individuals prefer, the reactions toward them arising from others, and the tactics they use that influence their environment. Organ (1988) and Borman and Motowidlo (1997) point out that personality or dispositional variables are more influential determinants of OCBs or contextual performance than an individual's ability and incentive factors.

Personality has been conceptualized in various ways for research investigating the role of personality on behaviors. Many studies have confirmed that personality is one of the important predictors that lead to certain behaviors by applying the Big Five personality model (Tupes and Christal, 1961), which includes conscientiousness, extraversion, agreeableness, neuroticism (or emotional stability), and openness to experience (Hogan, Hogan, and Roberts, 1996; Mount, Barrick, and Stewart, 1998). Other researchers who have investigated OCBs have applied different personality dimensions such as service orientation and empathy (Bettencourt et al., 2001), and prosocial personality including other-oriented empathy and helpfulness toward others (Wright and Sablinski, 2008) by pointing out that the antecedents are less abstract personality traits than the Big Five personality constructs. This inconsistent usage of personality facets may be due to differences in research contexts (e.g., employee-employer relationships in the organization or employee-customer relations at the front desk) and/or of desirable outcomes (e.g., task or in-role performance, helping behaviors, or voluntary participation).

Especially, many prior studies in organizational literature have shown that the conscientiousness and agreeableness<sup>1</sup> of an employee influences task performance (Kamdar and Van Dyne, 2007), contextual performance such as helping and cooperating with others (Barrick, Stewart, Neubert, and Mount, 1998; LePine and Van Dyne, 2001) as well as in organizational citizenship behaviors (Johnson, 2001). This influence is because the two personality dimensions— conscientiousness and agreeableness— are not in themselves affectively toned, whereas extraversion and neuroticism relate to emotional or affective predispositions (Organ, 1994; McCrae and Costa, 1991). McCrae and Costa (1991) also argue that openness to experience is considered to intensify the experience of both positive and negative affect. Additionally, it is possible that conscientiousness and agreeableness are associated with subjective well-being through patterns of behavior to which they give rise (McCrae and Costa, 1991). In line with this logical notion, the other three dimensions of the Big Five personality model—extraversion, neuroticism, and openness to experience—have not been addressed by OCB research due to relatively weak conceptual links with OCB constructs and inconsistent findings. For example, Barrick, Mount and Strauss (1992) find no effects of extraversion and neuroticism on altruism, a characteristic similar to those expressed by COCBs, whereas Smith, Organ, and Near (1983) demonstrate the negative effects of extraversion and neuroticism on altruism and compliance.

Along with the abovementioned theoretical and empirical support, conscientiousness and agreeableness will be conceptualized as determinant factors of

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<sup>1</sup> Conscientiousness includes individual traits acting in a well-maintained manner and having a goal-oriented tendency and agreeableness refers to an individual propensity related to helping other people, and being sympathetic to the concerns of others (Barrick and Mount, 1995). Chapter 3 includes more detail explanations and definitions.

COCB motivation in the service context. In addition to these two personality traits, prosocial personality and proactive personality<sup>2</sup> will be addressed as antecedents that influence COCB motivation because prior studies have demonstrated the positive effect of prosocial and proactive personality on OCBs and COCBs (Penner, 2002; Bateman and Crant, 1993). Justification of these relationships will be discussed in the Chapter 3.

### **Research of Customer Value and Satisfaction**

#### **What is a Customer Value?**

From traditional economic viewpoints, customer value has been seen as a trade-off based on total costs and total benefits received (Heskett, Jones, Loveman, Sasser, and Schlesinger, 1994; Buzzell and Gale, 1987). However, recently, contemporary researchers in marketing and customer behaviors have come to view customer value in multiple ways (Kim, 2002). Holbrook (2005, p.46) defined *customer value* as an “interactive relativistic preference and experience,” referring to a customer’s experience through interaction with some objects such as a product or a service or place or with events.

Holbrook (1994, p.27) also conceptualizes customer value as a “favorable disposition, general liking, positive affect, judgment as being good.” Holbrook’s framework identifies eight values based on three pairs of dimensions: active/reactive, extrinsic/intrinsic, and self-orientation/other-orientation (i.e., efficiency, excellence, playfulness, aesthetics, status, ethics, esteem, and spirituality). As a representative

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<sup>2</sup> Prosocial personality refers to a personal disposition of concern for others’ welfare and engaging in behaviors on their behalf (Penner, 2002) and proactive personality is defined as a relatively stable tendency to effect environmental change that differentiates people based on the extent to which they take action to influence their environments (Bateman and Crant, 1993). More detail explanations and concepts of these two traits are addressed in the Chapter 3.

example, customer value may be extrinsic, which refers to how the experience helps customers to achieve their specific goals through consumption, whereas it may be intrinsic because customers can enjoy the consumption experience for its own sake (Babin and Darden, 1995; Mathwick, Malhotra, and Rigdon, 2002). Moreover, it is possible that customer value is experienced as the consequence of either a customer's active or reactive interactions with marketing entities such as the product, service, salesperson, and store itself (Mathwick et al., 2002). Thus, by incorporating the new perspectives on traditional viewpoints of customer value, customer value has been considered as a subjective evaluation that is both perceived through experiences and developed by a balance between benefits and sacrifices (Yuan and Wu, 2008).

Given the importance of customer value through consumption experiences, Mathwick, Malhotra, and Rigdon (2001) conceptualize *customer experiential value* as customers' perceptions of products or services through either direct use or indirect appreciation. Based on the eight dimensions of Holbrook's customer value, the typology of customer experiential value, as first suggested by Mathwick et al. (2001), involves four quadrants framed by intrinsic/extrinsic sources of value on one axis and active/reactive sources of value on the other (i.e., efficiency, excellence, playfulness, and aesthetics), and does so by focusing on only the self-orientation dimension.

In a way similar to the customer experiential value defined by Mathwick et al. (2001), Yuan and Wu (2008) suggest emotional value and functional value as experiential values that customers can perceive through experiential marketing such as perceptions of sense, feeling, thinking, and service quality. Emotional value refers to customers' feelings and attitudes toward some products, businesses, and brands by

including enjoyment, relaxation, and good feelings (Sweeney and Soutar. 2001), whereas functional value is defined as financial or mental rewards that customers obtain from their input such as effectiveness and convenience (Mathwick et al., 2001; Sweeney and Soutar. 2001).

More recently, Chan et al. (2010) find that customer participation allows customers to create not only their economic value but also relational value, which derives from an interaction with marketing parties (i.e., employees or other customers) building social bonds with customers (see Figure 1). Chan et al. (2010, p.49) define economic value as “the benefit and cost outcomes of the core services” and relational value as “the value resulting from emotional or relational bonds between service employees and customers.” In addition, Nsairi (2012) expands Holbrook’s customer value by adding social value when investigating the effect of situational factors (i.e., store atmosphere, companionship with others, motivation, store mood, and time of visit) on perceived value in the retail store setting. The findings of Nsairi (2012) provide additional evidence in support of Chan et al.’s (2010) investigation by confirming that customers can establish social value through experiences such as customer participation as well as functional (or economic) value and emotional (or individual) value (see Figure 1).

**Figure 1.** Customer Participation and Customer Value Creation



*Note:* Figure 1 is adapted based on Chan et al. (2010) and Nsairi (2012)

As shown in previous studies, conceptualization of customer value is an on-going project and may vary depending on research contexts and different sorts of experiences. Thus, the present study will identify perceived value that customers experience through participating behaviors in the service contexts. Additionally, there is a lack of research in terms of consequences of customer value in value co-creation literature. This study, therefore, will explore the outcomes that result from customer value through co-creation activities (e.g., COCBs) such as customer satisfaction and behavioral intentions.

### **What is Customer Satisfaction?**

In the marketing and consumer behavior literature, satisfaction has been defined in diverse ways. Oliver (1997) describes satisfaction as “a judgment that a product or service feature, or the product or service itself, provides pleasurable consumption related fulfillment.” Hunt (1977) defines satisfaction as “the evaluation of emotion” (p.460), whereas Tse and Wilton (1988) suggest that satisfaction is “the customer’s response to the evaluation of the perceived discrepancy between prior expectations [or some other norm of performance] and the actual performance of the product as perceived after its consumption” (p.204). Andreassen (2000) also mentions that satisfaction can be understood as a “subjective evaluation of emotion,” which occurs as a function of discrepancy between input and output. Consequently, satisfaction is conceived as a fulfillment response employed to understand and evaluate the consumer experience.

Previous research in satisfaction has agreed that satisfaction is primarily determined by the extent to which outcomes of consumption meet the customer’s desires or expectations (Fornell, Johnson, Anderson, Cha, and Bryant, 1996; Anderson, Fornell,

and Lehmann, 1994). Reynold and Beatty (1999) note that customers may have different needs or expectations of different objects (i.e., service per se, organization, employee, etc.), so that the objects may be assessed separately. In addition, some researchers have suggested two conceptualizations of customer satisfaction: service encounter or transaction-specific satisfaction and overall satisfaction (Cronin and Taylor, 1994; Shankar, Smith, and Rangaswamy, 2003). Transaction-specific satisfaction is based on specific characteristics of a certain service or product that customers perceive, whereas overall satisfaction refers to cumulative customer measurement of their consuming experiences related to an organization's past, present, and future performance (Fornell, 1992; Patterson and Spreng, 1997). In other words, the transaction-specific approach considers satisfaction as an emotional response to the specific transactional experience (Oliver, 1993), whereas the overall satisfaction perspective views satisfaction as a cumulative evaluative response to the organization.

Heskett, Sasser, and Schlesinger (1997) also argue that customer satisfaction is a function of a customer's perception of the value obtained in a transaction or relationship. More specifically, Mohr and Bitner (1995) argue that customers perceive satisfaction about a service transaction based on the service outcome (what the customer received through the exchange) and the interactional process of service delivery (the manner in which the outcome is delivered to the customer), resulting in overall customer satisfaction with the organization (Bitner and Hubbert, 1993; Oliver, 1993). Thus, this study considers that customers can have satisfaction with a service outcome (transaction-specific) and with an employee (relationship-specific or interactional process)



during/after the process of COCBs, and, in turn, have a separate perception of satisfaction with the organization.

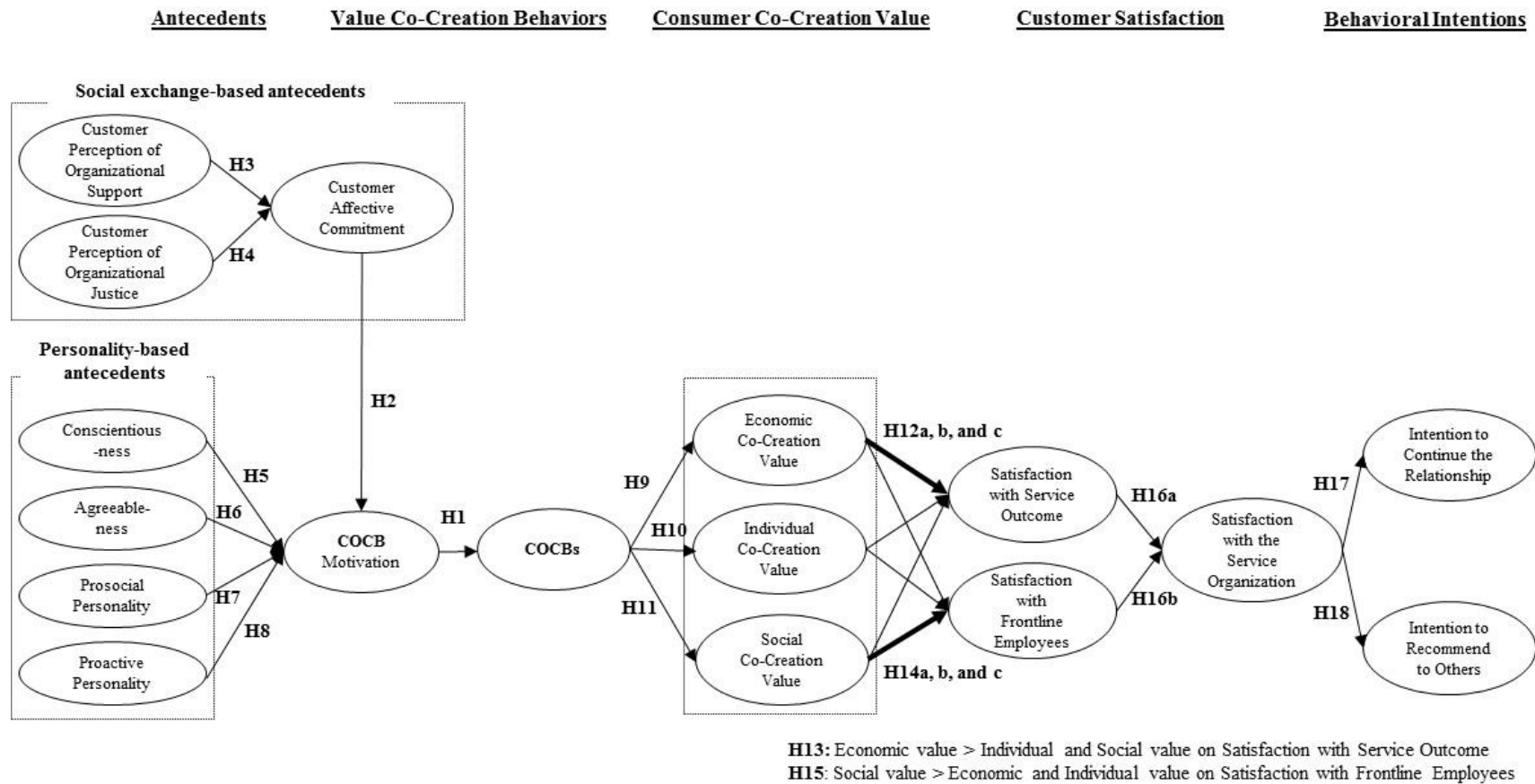
Along with more detailed evidence from recent empirical and theoretical studies, the following chapter of this proposal provides the logical basis and justification to develop the theoretical framework and hypotheses for the present study.

### **CHAPTER 3**

#### **THEORETICAL FRAMEWORK AND HYPOTHESES DEVELOPMENT**

Chapter 3 involves hypotheses development based on theoretical rationales. The chapter is divided into two parts to explore 1) antecedents and 2) consequences of COCBs. Figure 2 presents the theoretical framework, which reflects the abovementioned hypotheses and the relationship among the constructs.

**Figure 2.** Proposed Theoretical Framework to Explore Antecedents and Consequences of COCBs



*Note:* Thicker lines indicate stronger impacts.

## **Antecedents of COCBs**

### **COCB Motivation and COCBs**

Studies 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 et al., 2002). In the organizational psychology literature, Griffin and Neal (2000) show that participation motivation positively influences employee's safety participation, which refers to behaviors such as participating in voluntary safety activities or attending safety meetings. More specifically, Neal, Griffin, and Hart (2000) demonstrate that participation motivation has the mediating effect between employee's perceptions of a safe climate and safe participating behaviors by pointing out that individuals who are motivated to engage in safety performances are more likely to show those behaviors.

More recently, in the service retailing and customer behavior literature, Buttgen, Schumann, and Ates (2012), in a first study of its kind, empirically confirm that customers' motivation to coproduce is positively related to customer coproduction behavior in a health-related training context. The finding supports that a customer's motivation to engage in coproduction is an important requirement for coproduction behavior in the service production process (Bettencourt et al., 2002; Dellande, Gilly, and Graham, 2004). In addition, because participatory activities are voluntary, whereas compliance is generally required, motivation is likely to be a more important determinant for voluntary participation than for compliance (Neal et al., 2000). Given this background, the present study proposes that the motivation for COCBs positively influences actual COCBs by defining COCB motivation as an overall underlying

objective or willingness to perform COCBs in a specific situation. Recently, some researchers have viewed COCBs as actual behaviors, rather than the intention or willingness to perform COCBs, behaviors which arise from personal motivations to understand what produces beneficial actions or prosocial work behaviors (Finkelstein, 2008; Rioux and Penner, 2001). Thus, this study predicts the positive relationship between the motivation toward COCBs and actual COCBs.

***Hypothesis 1.*** *COCB motivation will have a positive impact on actual COCBs.*

## **Social Exchange-Based Antecedents and COCB Motivation**

### ***Customer Affective Commitment and COCB Motivation***

The organizational commitment meta-analysis of Meyer, Stanley, Herscovitch, and Topolnytsky (2002) reveals 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 which 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) argue 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 that facilitate proactive behaviors such as cooperation and problem solving. O'Reilly and Chatman (1986) empirically find 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 service organization, they are more likely to be motivated to perform voluntary behaviors for the service organization. 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 suggest that customer commitment is positively related to COCBs, including customer cooperation, customer participation, and customer tolerance. Bettencourt (1997) empirically confirms the positive effect of customer commitment on customer participation in organizational issues. More recently, Bove et al. (2009) empirically investigate how a customer's commitment to a specific service worker, potentially perceived as a representative of the organization, influences COCBs. Thus,

***Hypothesis 2.** Customer affective commitment (CAC) to the organization will have a positive impact on COCB motivation.*

### ***Customer Perception of Organizational Support and Customer Affective Commitment***

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 reciprocal obligation to care about the welfare of an organization and to assist the organization to

achieve its goals. Thus, POS should not only fulfill a 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 for and supports them, namely *customer's perception of organizational support (CPOS)*, which is defined as the customer's perception of "the extent to which the organization values the customers' contributions and cares about their well-being" (Keh and Teo, 2001). Eisenberger et al. (1986) argue that customers should feel that the organization understands their needs, acts in their best interests, and offers them the best service possible. This kind of perceived organizational caring and support is most likely to influence customers' 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) find 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 demonstrate 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) show that CPOS influences positive affect such as satisfaction in the service setting. Similarly, Bettencourt (1997) empirically confirms the positive effect of CPOS on customer's

commitment to a firm, which results in customer voluntary performance including loyalty, cooperation, and participation.

***Hypothesis 3.** Customer perception of organizational support (CPOS) will have a positive impact on customer affective commitment (CAC) to the organization.*

### ***Customer Perception of Global Organizational Justice and Customer Affective Commitment***

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, Degoey, 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 employee OCBs (Greenberg, 1993; Moorman, 1991). However, the findings are inconsistent as to whether one dimension of organizational justice (distributive, procedural, or interactional) is stronger than the others in its impact on attitudes toward, or behaviors for, an organization. For example, Sweeney and McFarlin (1993) find that procedural justice has a stronger relationship with



organizational commitment than distributive justice. Greenberg (1993) confirm 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.

In the service marketing and consumer behavior literatures, with an objective of aggregating the three dimensions of justice, *customer perception of organizational justice* has been identified as the customers' evaluation of the service organization based on fulfillment of its obligation to provide outcomes and benefits that the organization has promised (Bowen, Gilliland, and Folger, 1999; Yi and Gong, 2008). According to the shift that combines the three types of justice, Blodgett, Granbois, and Walters (1993) also use a global measure of perceived justice that reflects the three dimensions of justice to test the customer complaint 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 show 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) find 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 customers' overall perceived organizational justice positively affects a customer's commitment to a firm.

***Hypothesis 4.*** *Customer perception of global organizational justice (CPGOJ) will have a positive impact on customer affective commitment (CAC) to the organization.*

### **Customer Personality-Based Antecedents and COCB Motivation**

Given the theoretical and empirical backgrounds, this study focuses on the role of *conscientiousness* and *agreeableness*, two aspects of the five-factor personality model, on COCBs. These two dimensions from the Big Five personality model have been heavily and consistently linked to OCBs in past research by showing distinct theoretical and empirical connection to OCBs (Konovsky and Organ, 1993; Moorman, 1991; Ilies, Scott, and Judge, 2006). In addition, this study suggests that *prosocial personality* and *proactive personality* are additional dimensions of personality that influence COCBs because they are strongly positively related to proactive behaviors and voluntary behaviors such as helping employees or other customers. According to personality and behavioral scholars,

individuals have different personalities or dispositions that cause significant differences in motivations and values, which consequently lead to different behaviors. Organ and McFall (2004) argue that personality traits of an individual are more likely to influence motivations for behaviors rather than actual behaviors. Along with this notion, therefore, this study conceptualizes customer personality (i.e., conscientiousness, agreeableness, prosocial personality, and proactive personality) as antecedents of COCB motivation in the service situation.

### ***Conscientiousness and COCB Motivation***

Conscientiousness refers to acting in an orderly and well-planned manner, taking responsibility, being careful, and having an achievement-oriented personality (Barrick and Mount, 1995). Conscientiousness is a major personality dimension that has been conceptualized and examined as the most direct and main predictor of OCBs (Penner, Midili, and Kegelmeyer, 1997). The meta-analysis of Organ and Ryan (1995) supports this notion, that is, conscientiousness is positively related to employees' OCBs, which are characterized by altruism and general compliance because conscientiousness represents a general work-involvement tendency. Borman et al. (2001) also report that there is positive association between conscientiousness and citizenship performance (or OCBs). More specifically, Motowidlo and Van Scotter (1994) argue that conscientiousness is a better antecedent of citizenship behaviors (or contextual performance) than of task performance, showing that conscientiousness is more strongly associated with citizenship performance than it is with task performance.

However, to my knowledge, there is no empirical investigation on the effect of the customer conscientious personality dimension on COCBs as well as on customer

participation. Applying the positive role of conscientiousness on employee's OCBs to the COCB research area, this study hypothesizes that a customer's conscientiousness has a positive impact on his/her motivation to perform COCBs. Bove et al. (2009) mention that customers are more likely to be involved in helping actions because of the increased feeling of empathy when they have a conscientious and/or agreeable disposition. In addition, conscientious individuals tend to be hardworking, achievement-oriented, dependable, and responsible (Barrick and Mount, 1991, 1995). Thus, customers who are high in conscientiousness are more likely to be motivated to engage in achievement-oriented and responsible actions than those with low conscientiousness. More specifically, when highly conscientious customers recognize that their COCBs result in enhancing the service that they receive and their relationship with a service organization, they are more likely to feel motivation for performing further COCBs than customers who have low conscientiousness. Thus,

***Hypothesis 5.*** *Customer conscientiousness will be positively related to COCB motivation.*

#### ***Agreeableness and COCB Motivation***

According to Barrick et al. (1998), agreeableness may be one of the personality characteristics that can explain helping behavior. Agreeableness is defined as a propensity of individuals to defer to others (Tan, Foo, and Kwek, 2004). Hogan and Shelton (1998) describes agreeableness as the degree to which an individual is easy to get along with as defined as one's pleasantness when engaged with others. Mount and Barrick (1995) mention that individuals with high agreeableness are flexible, cooperative, courteous, and tolerant. Individuals who have these characteristics are more likely to engage in helping

behavior. Johnson (2001) demonstrates that employees who are high in agreeableness not only show cooperative behaviors but also follow rules and procedures. More recently, Kamdar and Van Dyne (2007) find that agreeableness is positively associated with helping supervisors and coworkers in an organizational environment. This finding is consistent with previous studies in terms of the positive relationship between agreeableness and cooperative behaviors among team members (Hurtz and Donovan, 2000; LePine and Van Dyne, 2001).

By extending the role of agreeableness within an organizational relationship, some researchers emphasized the importance of customers' agreeableness for the harmonious relationship between customers and service organizations (Tan et al., 2004). Hurly (1998) confirms that service employees in a retail setting who are high in agreeableness tend to provide better service to customers. In a similar way to the agreeableness of service employees, customers who are high in agreeableness tend to show favorable responses to service organizations and/or employees, and control their emotions when they are dissatisfied (Tobin, Graziano, Vanman, and Tassinary, 2000). Given that agreeableness is a prediction of helping behavior and altruism (Podsakoff et al., 2000), customers with high agreeableness may be more willing to help and understand service organizations than those with low agreeableness. For example, when service organizations fail to provide the service that customers expect to experience, customers who have high agreeableness may be more tolerant and courteous, and even help service organizations to recover the service failure. Thus, customers' agreeableness will positively influence motivation of COCBs.

***Hypothesis 6.** Customer agreeableness will be positively related to COCB motivation.*

***Prosocial Personality and COCB Motivation***

In the early 1990s, Penner and his colleagues conceptualized prosocial personality, which explains an individual's enduring predisposition to feel concern about others' welfare, to think of their best interests, and to engage in behaviors on their behalf. In order to measure the level of prosocial personality, Penner, Fritzsche, Craiger, and Freifeld (1995) developed the Prosocial Personality Battery (PSB), a scale which constitutes two dimensions: Other-oriented Empathy and Helpfulness. Other-oriented empathy taps the tendency to experience empathy for, and to feel responsibility and concern about, the well-being of others, whereas Helpfulness represents the tendency to engage in prosocial behaviors or activities (Penner et al., 1995). Especially, Helpfulness is considered as prosocial behaviors based on a self-reported history of engaging in helpful actions and an absence of egocentric physical reactions that distress other people (Penner et al., 1997).

Penner (2002) conceptualizes prosocial personality as one of the important predictors of the initial decision to volunteer in activities or events. Borman and Motowidlo (1997) argue that individual personality, including prosocial personality, is a significant factor that influences contextual performances (e.g., helping and cooperating with others and volunteering to carry out task activities that are not part of one's own job). Additionally, some previous studies have found a positive association between prosocial personality and OCBs in the organizational setting (Midili and Penner, 1995) and volunteer behavior at a hospice (Finkelstein et al., 2005). Similarly, it makes sense

that customers who have high prosocial personality tend to have higher motivation for COCBs compared to those with relatively low prosocial personality.

More recently, however, the empirical investigation of Wright and Sablinski (2008) shows no relationship between Other-oriented Empathy and OCBs and weak association with Helpfulness and OCBs. The authors pointed out that the difference between prior studies' results and those of their study may be because of the different methodologies that they used, such as not using the existing OCB scale items but measuring OCBs under experimental conditions. Thus, by replicating previous studies such as Midili and Penner (1995) and Finkelstein et al. (2005), this study can hypothesize and empirically test the positive relationship between prosocial personality of customers and motivation for COCBs.

***Hypothesis 7.** Customer prosocial personality (Other-oriented Empathy and Helpfulness) will be positively related to COCB motivation.*

### ***Proactive Personality and COCB Motivation***

Bateman and Crant (1993) define proactive personality as a personality of one who is relatively unrestricted by situational forces and who affects environmental change. According to Bateman and Crant (1993), the proactive personality is related to a tendency to initiate and maintain behaviors that adjust the surrounding environment, whereas individuals who possess less proactive personality tend to take a more reactive and passive approach toward their jobs. For example, proactive employees are willing to actively assist their organizations and engage in activities that extend beyond official responsibilities or in-role performances (Campbell, 2000; Crant, 2000). Recently, Li et al. (2010) show that employees with proactive personalities are more motivated to take

initiative to contribute, which is likely to improve their willingness to make discretionary contributions in the form of OCBs.

Bateman and Crant (1993) develop the proactive personality scale (PPS) and demonstrated convergent, discriminant, and predictive validity. By incorporating this PPS into a variety of contexts, many researchers have investigated the positive relationship between an employee's proactive personality and proactive behaviors such as leadership (Crant and Bateman, 2000), organizational innovation (Parker, 1998), entrepreneurship (Becherer and Maurer, 1999), and team performance (Kirkman and Rosen, 1999). More recently, Rank, Carsten, Unger, and Spector (2007) demonstrate that the employee trait of personal initiative, which is an interchangeable concept with a proactive personality, has a positive influence on proactive performance for customer service such as citizenship behaviors in the realm of the customer service area.

Borrowing results from the organizational behavior and service marketing literature, the positive effect of proactive personality may be used to explain proactive behaviors of customers as well, given that customers can be conceptualized as partial employees or human resources of the organization (Bowen, Schneider, and Kim, 2000). Up to now, there is no known study that has investigated the effect of customer's proactive personality on attitudes and behaviors related to COCBs. However, consistent with the fact the proactive employees tend to actively seek opportunities to assist their organizations (Li et al., 2010), it is possible that customers who have a proactive personality are also willing to help organizations. Thus, the positive relationship between proactive personality and motivation of COCBs is proposed.



***Hypothesis 8.*** *Customer proactive personality will be positively related to COCB motivation.*

The current section has addressed determinant factors that may influence COCBs by focusing on the social exchange concept and individual differences of customers. The following section will center on consequences of COCBs including customer co-creation value, customer satisfaction, and behavioral intentions and the logical relationships among the constructs.

### **Consequences of COCBs**

#### **COCBs and Customer Co-Creation Value**

As shown in previous studies, there have been different classifications of customer value types (see Holbrook, 1994; Mathwick et al., 2001). This is because research pertaining to customer value has focused on the different contexts that customers experience and different types of experiences. For example, customer experiential value, suggested by Mathwick, et al. (2001), does not include social or relational value because their research had been conducted by focusing on impersonal contexts such as catalogue and online shopping. In addition, the investigation of Chan et al. (2010) focuses on economic value and relational value as customer value, which was based on co-creation in the professional financial services context. Even though few empirical investigations have examined the effect of customer participation on value co-creation, the recent research of Chan et al. (2010) finds that two types of customer value, economic value and relational value, can be created through customer participation, especially in the offline service context as for example with professional financial services.

The present research focuses on *customer co-creation value*, which derives from when customers voluntarily participate in the process through which a service organization delivers their service. Given the diversity and differences of customer value dimensions depending on the different contexts, Chan et al. (2010) identify economic value and relational value as customer value, which can be created through customer participation in the service area. Moreover, Woodruff (1997) proposes that the concepts of customer value vary depending on the circumstances within which customers think about value. Thus, this study expands Chan et al.'s (2010) research by incorporating an additional value, individual co-creation value. Because individual co-creation value includes feelings that are obtained from goal achievement, it is possible that customers perceive individual co-creation value when participating in the processes of service organizations (e.g., suggestion of good ideas, helping other customers instead of service organizations). Dong et al. (2008) support this notion by demonstrating that customer participation in service recovery positively influences customers' perceived value pertaining to accomplishment feelings, enjoyment, and increased confidence in his or her skills, which are elements of individual co-creation value.

In addition, the customer co-creation value composing economic, individual, and social co-creation value encompasses both the eight dimensions of Holbrook's customer value and the four dimensions of Mathwick's customer experiential value. For example, in Holbrook's customer value and Mathwick's customer experiential value, efficiency and excellence can be included in economic co-creation value, whereas individual co-creation value implies playfulness as well as esteem and spirituality. Additionally, status and ethics can represent social co-creation value, but aesthetics is not a value that can be

perceived in this study setting, COCBs. Thus, in this research, *economic co-creation value*, *individual co-creation value*, and *social co-creation value* are conceptualized as appropriate dimensions of customer co-creation value through COCBs. Some researchers have strongly suggested the possibility of incorporating and revising additional dimensions to the extant conception of customer value (Holbrook, 1999; Khalifa, 2004, Smith and Colgate, 2007). Additionally, most researchers have agreed that these three values (i.e., economic, social, and individual value) are the main dimensions composing customer value as shown in Table 1 (Sheth, Newman, and Gross, 1991; Sweeney and Soutar, 2001).

Thus, this research assumes that economic co-creation value, individual co-creation value, and social co-creation value constitute customer co-creation value that can be perceived through voluntary participations in value co-creation in the service industry.

**Table 1.** Summary of Research on Customer Value

Researchers	Economic Value	Individual Value	Social Value
Sheth et al. (1991)	√	√	√
Holbrook (1994, 1999)	√	√	√
Lai (1995)	√	√	√
Naylor (1996)	√	√	
Lapierre (2000)	√		√
Overby (2000)	√		√
Mathwick et al. (2001)	√	√	
Sweeney and Soutar (2001)	√	√	√
Meuter, Bitner, Ostrom, and Brown (2005)	√	√	
Yuan and Wu (2008)	√	√	
Chan et al. (2010)	√		√
Nsairi (2012)	√	√	√

Note: '√' indicates that the study includes the value.

### ***COCBs and Economic Co-Creation Value***

Economic value has been the main focus for most research on customer value because the economic value is considered as a basic value delivered to customers when they utilize products or services (Yuan and Wu, 2008). In this study, economic co-creation value refers to *financial, physical, and mental rewards that customers can obtain from their investment or sacrifice* (Yuan and Wu, 2008, Mathwick, et al., 2001) *when participating in co-creation activities*. As shown in its definition, economic value has been explained by a variety of terminologies for extrinsic, functional, financial, and utilitarian values based on the ratio of input and output (Sheth et al., 1991; Yuan and Wu, 2008). More specifically, Holbrook (1999) mentions that customers experience extrinsic value such as efficiency and excellence of quality by consuming products or services. Functional value can be also understood as an interchangeable concept with economic value because it explains a value based on efficiency, convenience, and/or quality (Sheth et al., 1991; Yuan and Wu, 2008). In addition, utilitarian value in the consumption experience is characterized as task-related and rational and is closely related to the acquisition of products and information in an efficient manner (Holbrook and Hirschman, 1982; Babin and Attaway, 2000).

Chan et al. (2010) demonstrate that customers experience economic value through participation in the co-creation activities in the service area by perceiving better service quality, more customized service, and higher level of customer control. Some researchers have found that consumer participation in the co-production process is a way to reduce perceived risks (i.e., financial, performance, physical, and psychological risk) related to inappropriate products (Taylor, 1974; Dowling and Staelin, 1994). In line with this

notion, customers' involvement or participation may help to guarantee the high quality of a product or service by minimizing risks and costs. Speaking specifically, when customers monitor employees' performances, the probability of a higher quality in outcome fulfillment is more likely (Etgar, 2008). In addition, it is possible that customers receive a more customized service when they engage in employee-like performance because they have more opportunities to express their needs and opinions through the process of customer participation. Auh et al. (2007) argue that co-production with service organizations provides customers benefits such as higher levels of customization, cost reduction, and greater discretion or control about the configuration of the outcomes. Thus, customers can experience economic co-creation value through customer participation because participation leads to high service quality, low cost, more customized service, and sense of control over the process and outcomes.

Customers may want to improve service quality and voluntarily engage in employee activities for improved service delivery. Kelley et al. (1990) mention that the level of perception of economic value such as service quality depends on what and how customers contribute to outcomes of service. Thus, as general customer participation mentioned above, the COCBs may also allow customers to experience perception of the enhanced service quality, a service delivery corresponding to or exceeding their needs, and a sense of control while the service is provided, all of these experiences contributing to economic co-creation value.

***Hypothesis 9.** COCBs will have a positive impact on customer perceptions of economic co-creation value.*

#### ***COCBs and Individual Co-Creation Value***

In general, participating in an activity has been shown as an enjoyable experience for customers (Dabholkar and Bagozzi, 2002; Meuter et al., 2005) because it is the function of an intrinsically-driven process (Bateson, 1985). Dong et al. (2008) consider the experience as enjoyable through participation in value co-creation as individual value, which refers to feeling a sense of goal achievement through accomplishment, pleasure, prestige, and personal growth from engaging in co-creation activities (Rogers, 1995; Woodruff, 1997; Meuter et al., 2005). More specifically, individual value can be identified as the value that emerges from achieving intrinsically-motivated goals including knowledge-seeking and curiosity satisfaction from novel experiences (Sheth, et al., 1991) as well as from emotionally satisfying feelings such as excitement, comfort, and hedonism.

Some research in the customer motivation literature mentions that participating behaviors are motivated from accomplishing specific tasks, such as solving a problem and generating an opinion or idea (Hars and Ou, 2002). In addition, customer shopping related behaviors can be motivated by the desire to learn about new trends and innovations and to enjoy a new experience (Tauber, 1972; Arnold and Reynolds, 2003). In line with this concept, customer participation can be the means by which to satisfy a desire to experience pleasure from learning a new task and participating in the task. Arnold and Reynolds (2003) mention that individuals tend to pursue ego enhancement to their self-concepts by adding satisfying roles and “acting out” responsibilities of the role. For example, when customers experience successful performances through active involvement in new product development, they can feel achievement and enjoyment, in

that their participation positively influences the company to incorporate certain product features with specific value for them (Larson and Bowen, 1989).

Similarly, Claycomb, Lengnick-Hall, and Ink (2001) note that service customers develop specific skills from an organization and acquire the knowledge needed for social interaction with employees through the process of organizational socialization such as in participation activities. Recently, Dong et al. (2008) find that the level of customer participation in service recovery had positive impact on customer perceived value related to future co-creation, including accomplishment feelings and increased confidence in his or her skills. When customers contribute personal efforts and participation for favorable service delivery, it is possible that the participating process provides them feelings of accomplishment, personal growth, and enjoyment from engaging in the activity (Meuter et al., 2005). Thus, this study assumes that COCBs positively influence customer perception of individual co-creation value.

***Hypothesis 10.*** *COCBs will have a positive impact on customer perceptions of individual co-creation value.*

### ***COCBs and Social Co-Creation Value***

According to Johar (2005), when individuals determine value from consumption, they do not always maximize the economic utility but rather think of social norms. Lusch, Vargo, and Malter (2006) mention that value co-creation inherently implies the relational or interactive processes or activities among parties such as employees and customers. In general, the interpersonal activities with employees may yield value for customers by providing not only a satisfactory feeling about an enhanced relationship with employees but also a feeling of improved social status and affiliation through an approval or

acceptance from employees (Baumeister, 1998; Dholakia, Bagozzi, and Pearo, 2004). Thus, through value co-creation activities, customers may experience social co-creation value, which refers to the sense or feeling derived from developing a good relationship with a service organization through co-creation activities or communication (Chan et al., 2010).

Claycomb et al. (2001) argue that customer participation, which co-creates value, leads to enhanced relationships with employees, including the enjoyment of social interaction with employees and an appreciation of specific goals that the organization pursues. According to the customer shopping motivation literature, customers tend to be motivated by desires of social interaction, communicating with other people (Tauber, 1972). In particular, Wagner (2007) finds that the interaction with a friendly salesperson in the retail setting positively influences social value such as the perceived interactive pleasure of the shopping experience. When customers participate in specific activities or processes that employees perform, they can have more opportunities to interact with employees, resulting in improved relationships.

Social co-creation value can also come from affiliating with favorable groups (Tauber, 1972; Reynold and Beatty, 1999) as well as establishing emotional or relational bonds such as between customers and employees (Butz and Goodstein, 1996). According to Bowen (1983), customers can play the role of substitutes for supervisory leadership in service encounters by providing employees with social support and task guidance. For example, if customers accomplish tasks or provide appropriate information in solving specific problems, they may have a feeling of affiliation as a “co-worker” as well as a sense of task accomplishment. Tauber (1972) argues that the desires of affiliation with



favorable groups and of social status and authority are the customer shopping motives. Additionally, individuals may perceive value of social enhancement when they gain acceptance and approval of other people and feel the improvement of their social status (Baumeister, 1998). For example, customer participation in value co-creation activities may allow customers to perceive themselves as employees of the organization or co-workers of a service organization. This perception can influence the sense of affiliation with the organization and enhance social status. The argument of Kelley et al. (1990) supports this notion in that customers tend to identify with organizational values and goals through the value co-creation process.

In the context of this study, COCBs include the overall behaviors in helping service organizations in providing the appropriate service that can satisfy customer expectations. In the process of COCBs, interaction with a service employee and/or organization may help a customer to have an enhanced relationship with the service organization. While they share information and knowledge to improve a service or to solve a problem, it is possible that the relationship between the customer and service organization is developed. In addition, because customers tend to believe that their participation (e.g., behaviors helping service organizations) leads to the fulfillment of tasks, customers perceive the value as related to a sense of community (McMillan and Chavis, 1986) through experiencing affiliation, companionship, and enhanced social status. When engaging in value co-creation activities, customers may satisfy their desire for personal relationship through interaction with employees and of affiliation and social status. Thus, this study hypothesizes that COCBs are positively related to customer's perception of social co-creation value.

***Hypothesis 11.** COCBs will have a positive impact on customer perceptions of social co-creation value.*

## **Customer Co-Creation Value and Customer Satisfaction**

### ***Customer Co-Creation Value and Customer Satisfaction with Service Outcomes***

Existing studies have rarely addressed the role of co-created value that customers perceive through COCBs as an antecedent of customer satisfaction. However, many studies have found a positive and direct link between customer value (utilitarian, hedonic, and experiential) and overall satisfaction in general in various situations (Patterson and Spreng, 1997; Tang and Chiang, 2010; Nsairi, 2012). Value perceptions have been a positive and direct predictor of organizational global satisfaction in professional consultancy services (Patterson and Spreng, 1997) and in the retailing area (Jones, Reynolds, and Arnold, 2006) by conceptualizing that value includes functional (or utilitarian) and non-functional (or hedonic) value.

Particularly, in the service area, Oh (1999) finds that customer value perceived by economic attributes (e.g., price and service quality) has a positive impact on customer satisfaction with hotel service. Gallarza and Gil-Saura (2006) also confirm the existence of a value-satisfaction-loyalty chain in the tourism area by investigating economic value, such as service quality and time spent, as one of the components of customer value. In addition, Tang and Chiang (2010) find that experiential value, such as obtaining sufficient and helpful knowledge and a feeling of value by users of online blogs, is positively related to the user's satisfaction about the experience of using the blog. Nsairi (2012) also demonstrates perceived value that occurred through motivation of recreation

and information acquisition positively influenced satisfaction with store browsing or choice. Thus, through value co-creation behaviors, when customers learn a new idea or fulfill a certain task related to the service they receive (e.g., knowledge or skills to solve a particular problem), they may experience satisfaction toward the service outcome, which refers to the satisfaction with what the customer receives during the exchange with the service organization (Mohr and Bitner, 1995) or the function of the service delivery process during the service encounter (see Berry and Parasuraman, 1991).

In addition, prior studies have also demonstrated that relational benefits from relationships with service organizations are positively related to satisfaction with the service (Gwinner, Gremler, and Bitner, 1998; Wu and Liang, 2009). A friendly and enjoyable relationship with employees as well as other customers provides value to the customer, which in turn leads to customer satisfaction in professional services (Patterson and Smith, 2001, 2003; Sharma and Patterson, 1999). According to Gremler and Gwinner (2008), the close relationship between a customer and an employee gives the employee greater knowledge of the customer's needs and expectations and reciprocally so for the customer. The improved understanding allows employees to deliver more customized and improved service to the customer, resulting in customer satisfaction. During this process, it is possible for the customer to perceive social co-creation value (i.e., affiliation and social status), and, in turn, have satisfaction with the service outcome. More recently, Chan et al. (2010) empirically support the mediating effects of economic value and relational value between customer participation and satisfaction by arguing that customer value positively influences customer satisfaction focusing on service outcome.

On the other hand, customers are more likely to weight economic co-creation value on an evaluation of service outcome, which refers to what customers receive during the service delivery process (Mohr and Bitner, 1995), as compared to individual co-creation value and social co-creation value. McDougall and Levesque (2000) find the influence of perceived value (value for money) and core service quality on customer overall satisfaction is greater than the influence of relational service quality across various service contexts (e.g., dentist, hairstylist, auto service, and restaurant). Similarly, Lee, Yoon, and Lee (2007) show that the magnitude of coefficient scores of functional value on customer overall satisfaction toward the service (i.e., tour satisfaction) was greater than that of emotional value, a similar value to the individual co-creation value of this study. Thus, this study hypothesizes that the impact of economic co-creation value on satisfaction with the service outcome is greater than that of individual co-creation value and social co-creation value.

***Hypothesis 12.*** *(a) Economic co-creation value, (b) individual co-creation value, and (c) social co-creation value will have a positive impact on customer satisfaction with the service outcome.*

***Hypothesis 13.*** *Economic co-creation value will have stronger impact on customer satisfaction with the service outcome compared to (a) individual co-creation value and (b) social co-creation value.*

#### ***Customer Co-Creation Value and Customer Satisfaction with Frontline Employees***

Reynold and Beatty (1999) demonstrate the positive relationship between economic value (or financial benefits) and satisfaction with frontline employees, who are defined as employees who have direct contact with the customer (Ekmekci, 2009).

Recently, Wu and Liaing (2009) also find that when customers perceived economic value such as through fair pricing, time efficiency, and excellence of service in the restaurant setting, they were satisfied with the service encounter, including both with frontline service employees and the service outcome. Given prior empirical evidence, it makes sense that when customers perceive economic value through value co-creation behaviors (e.g., time-saving and convenience), customers may have satisfaction toward the frontline employees with whom they co-create value, as well as satisfaction with the service outcome itself.

Considering that COCBs in the service delivery process are actions or behaviors by which customers share knowledge and co-work with frontline employees, individual co-creation value through COCBs (i.e., goal achievement and enjoyment) can be also obtained by interactions with frontline employees or receiving information from frontline employees. This process may allow customers perceive individual co-creation value. Similarly, Wu and Liang (2009) show that experiential value—efficiency, excellent service, aesthetics, and escapism—achieved through interaction with service employees positively influences customer satisfaction in terms of the employees and service quality, even though there is no study investigating the effects of individual value on customer satisfaction with service employees.

In addition, some previous studies have found that frontline employees' attitudes and behaviors such as fairness and customer orientation positively influence satisfaction with the employees (see Oliver and Swan, 1989; Goff, Boles, Bellenger, and Stojack, 1997). These employees' behaviors and attitudes may lead customers to have a perceived value such as shared feelings, respect, and status. Because customer participation

activities provide an opportunity not only to build a close relationship between frontline employees and customers but also to recognize employees' characteristics or attitudes, customers may perceive a social co-creation value by participating in the service delivery process, which influences customer satisfaction with frontline employees. Reynold and Beatty (1999) find that there is direct positive relationship between social benefits and satisfaction with frontline employees. Given the theoretical and empirical evidence, social co-creation value through COCBs may be positively related to satisfaction with frontline employees. As a result, this study hypothesizes the positive relationship between customer co-creation value distinguished as economic co-creation value, individual co-creation value, and social co-creation value and customer satisfaction with frontline employees.

However, the influence of social co-creation value on satisfaction with frontline employees is likely to be greater than that of economic co-creation value and individual co-creation value. This is because social co-creation value is based on the sense of affiliation and social status in the process of value co-creation behaviors (COCBs), rather than on the service itself that customers receive. In other words, because customers mainly perceive social co-creation value through the interaction with frontline employees, social co-creation value through COCBs may be more strongly related to satisfaction with frontline employees than that of economic co-creation value and individual co-creation value.

However, Reynold and Beatty (1999) show that the magnitude of the coefficient value of the functional benefit of satisfaction with a salesperson was higher than that of social benefits. Because their study was conducted in a particular product retail context

(upscale clothing/accessories stores), customers might consider functional or economic value as a more important factor in determining their satisfaction. Considering that the present study is based on not only the service organization context but also value co-creation activities, it is necessary that the greater impact of social co-creation value on satisfaction with employees be reinvestigated. Thus, the following hypotheses are proposed.

***Hypothesis 14.*** *(a) Economic co-creation value, (b) individual co-creation value, and (c) social co-creation value will have a positive impact on customer satisfaction with frontline employees.*

***Hypothesis 15.*** *Social co-creation value will have a stronger impact on customer satisfaction with frontline employees compared to (a) economic co-creation value and (b) individual co-creation value.*

### ***Customer Satisfaction with the Service Outcome, Frontline Employees, and Service Organization***

Customer satisfaction has been considered an important goal for organizations, especially in the highly competitive service industry (Jones and Sasser, 1995). Customers' positive feelings about particular attributes of a service organization (e.g., atmosphere, salesperson, and service quality) can be transferred to overall perceptions or evaluations of the organization (Beatty, Mayer, Coleman, Reynolds, and Lee, 1996). Some studies have found that there is a positive relationship between satisfaction with frontline service employees and overall satisfaction toward the organization (Goff et al., 1997; Crosby, Evans, and Cowles, 1990). In addition, Reynolds and Beatty (1999)

empirically demonstrate that satisfaction with frontline employees through relational value or benefits is positively associated with satisfaction with the organization.

However, surprisingly, even though the direct effect of satisfaction with service outcome on satisfaction with an organization has rarely been addressed in the marketing literature, the positive relationship between the two satisfactions has been conceptualized by studies in different contexts. For example, in the service recovery literature, evidence has shown the positive and strong association between satisfaction with service recovery and overall satisfaction toward the service organization (Ok, Back, and Shaklin, 2005). In other words, customers who are satisfied with the service outcome (e.g., remedy of the failed initial service) were more likely to perceive overall satisfaction with the organization. Considering the spillover effect of satisfaction with particular attributes of a service organization on overall satisfaction, this study hypothesizes that there is a positive relationship between satisfaction with service outcome and frontline employees and satisfaction with the service organization.

***Hypothesis 16.** (a) Satisfaction with the service outcome and (b) satisfaction with the frontline employees will have a positive impact on the overall satisfaction with the service organization.*

### **Overall Customer Satisfaction with Organization and Behavioral Intentions**

Ajzen and Fishbein (1980) mention that behavioral intentions are individuals' beliefs about what they are willing to do in a particular situation and are measured by the probability that an individual engage in a given action. Conceptualizing a behavioral intention as a surrogate indicator of actual behavior, Fishbein and Ajzen (1975) argue that



when behavior is volitional, the willingness or intention to perform a behavior is highly associated with the actual behavior itself. According to Smith and Bolton (2002), customers tend to revise their behavioral intentions toward a particular service organization by updating previous evaluations with new information. Thus, customer perceptions that are updated by new information may influence behavioral intentions, which lead to actual behaviors. The empirical study of Hellier, Geursen, Carr, and Rickard (2003) supports this notion by demonstrating that past purchase loyalty is not a determinant of customer current perceptions such as customer satisfaction and brand preference, which influence repurchase intentions. There are numerous empirical studies investigating the relationship between satisfaction and behavioral intentions: intention to repurchase and intention to recommend to others (Cronin and Taylor, 1994; Bitner, 1990; Cronin, Brady, and Hult, 2000). Therefore, customer satisfaction built through specific events or activities such as COCBs positively influences future behavioral intentions: intention to continue the relationship with the service organization and intention to recommend to others.

### ***Intention to Continue the Relationship with the Service Organization***

Intentions to repurchase have been viewed as an important consideration for marketers because the cost of obtaining a new customer is much more expensive than the cost of maintaining a current customer (Maxham, 2001). Given the importance of repurchase intention of customers, there is evidence to support the direct and positive relationship between customer satisfaction and repurchase intention in a wide variety of product and service studies (Anderson and Sullivan, 1993; Oliver, 1993; Cronin and Taylor, 1994; Patterson and Spreng, 1997). More recently, Tsiotsou (2006) reveals the

direct and positive relationship between overall customer satisfaction and intention to repurchase the products of a company (e.g., sport shoes). In the service industry, many empirical studies have also shown a consistent finding in that overall customer satisfaction with a service strongly influences the behavioral intention to return to the same service organization (Cronin and Taylor, 1994; Taylor and Baker, 1994).

Additionally, Burton, Sheather, and Roberts (2003) and Martin, O'Neil, Hubbard, and Palmer (2008) also demonstrate that customers satisfied with a service organization are more willing to reuse the service than dissatisfied customers in the transportation service and sport stadium context, respectively. Thus, this study hypothesizes that there is a positive relationship between customer overall satisfaction with the service organization and intention to continue the relationship with the organization.

***Hypothesis 17.** Customer overall satisfaction with the service organization will positively influence intention to continue the relationship with the service organization.*

#### ***Intention to Recommend to Other Customers***

Customers in the service industry tend to rely heavily on personal or non-commercial sources to obtain information of service organizations, such as recommendations from friends or relatives (Klenosky and Gitelson, 1998; Hosany and Witham, 2010) because of an intangible characteristic of the service. Thus, a customer's intention to recommend can be viewed as a very considerable factor that helps service marketers not only to have a new customer but also to improve their image. Bigné, Sanchez, and Sanchez (2001) and Petrick (2004) have found that tourists' satisfaction is positively related to intention to recommend the service they experience to others. In

addition, Namkung and Jang (2007) prove that satisfaction is a significant predictor of behavioral intentions including recommendation to others as well as repatronage in the restaurant setting. Thus, this study hypothesizes that overall satisfaction with the organization through COCBs in tasks with service organizations is a positive predictor of intention to recommend to others.

***Hypothesis 18.*** *Customer overall satisfaction with the service organization will positively influence intention to recommend the organization to other customers.*

## **CHAPTER 4**

### **SCALE DEVELOPMENT THROUGH QUALITATIVE RESEARCH**

Since COCB-related constructs and customer co-creation value are relatively new constructs, some researchers have paid attention to scale development to measure COCBs and customer co-creation value (Yi and Gong, 2013; Chan et al., 2010). However, there is still a lack of extant scales to measure COCBs and customer co-creation value in the service context (see Dong et al., 2008; Yi and Gong, 2013). More importantly, there is no existing measure for COCB motivation, a new construct proposed by the current research. Thus, the current study employed a mixed research method with a convenience sample: 1) Qualitative Research generated additional scales for the three constructs specifically related to the service context—COCB motivation, COCBs, and customer co-creation values. The goal of the qualitative research was to develop additional items that can be integrated with the existing measurement instruments to measure COCBs and customer co-creation value and to generate items to measure the motivation that leads to COCBs by confirming if there are sub-dimensions under the motivation construct.

After clarifying the items by integrating the existing modified scales and additional items from the qualitative research, 2) Quantitative Research was conducted with the convenience customer sample in order to test the proposed theoretical models for the present study. The Quantitative Research will be described in Chapter 5.

### **Research Methodology**

#### **Context of the Study**

The current study was focused on the offline service organization that requires face-to-face customer interaction as the offline service context may provide customers more varied incidents or circumstances to participate in tasks of service organizations as compared to an online service context. Thus, the offline service context was chosen for the present study due to that context being a rich environment for better understanding of COCBs. The inherent nature of value co-creating behaviors (e.g., customer participation or COCBs) is customer-focused and relational. Moreover, one of the common characteristics of service marketing, which distinguishes it from the marketing of products, is the inseparability of production and consumption—customers must be present at the moment of service delivery. Carmen and Langeard (1980) argue that “inseparability forces the buyer into intimate contact with the production process” (p. 8). This characteristic allows customers to have more opportunities to participate in the tasks or businesses of a service organization by utilizing their knowledge or skills. In addition, the heterogeneous nature of service encourages customers to require a more customized offering and thus participating in the service delivery process may allow customers to better experience a customized service, which may increase desirable outcomes such as perceived value and satisfaction for the customer.

Prior studies that have focused on a specific offline service organization (e.g., a sports center, medical service) have called forth further investigations into the actual interactions with customers of various service organizations in order to build theoretical generalizations (Yi and Gong, 2006). As a way to enhance the generalizability of the study across a variety of service organizations, the current research considered three types of service organizations, defined in terms of the level of customer contact and the level of

customization. Even though some service researchers such as Lovelock (1983) have attempted to classify the types of service based on a number of different criteria, the current study employed Bowen's (1990) three group taxonomy of services because it is an empirically-based classification system that was developed from customer perceptions of services (see Table 2). Service Group 1 is characterized as high personal customization, high employee-customer contact, and directed at people (e.g., restaurant, hotels, hair salon, travel agency, and medical service). Service Group 2 consists of the service category directed at things and characterized by low employee-customer contact and moderate customization (e.g., appliance repair, shoe repair, dry cleaning services, photofinishing, retail banking, and pest control services). Lastly, Service Group 3 includes the service types that are perceived as directed at people, feature moderate employee-customer contact, and low customization (e.g., cafeteria, fast food, movie theater, transportation, and theme park). Based on Bowen's three group taxonomy of services, survey instruments for both qualitative research and quantitative research were developed in three versions, each tailored to a category of service type.

**Table 2.** Bowen's (1990) Three Group Taxonomy of Service

	<b>Service Group 1</b>	<b>Service Group 2</b>	<b>Service Group 3</b>
<b>Directed at</b>	People	Things	People
<b>Customer contact</b>	High	Low	Moderate
<b>Customization</b>	High	Moderate	Low
<b>Examples</b>	<ul style="list-style-type: none"> <li>▪ Beauty salon</li> <li>▪ Full-service restaurant</li> <li>▪ Barber shops</li> <li>▪ Body massage</li> <li>▪ Fine hotels</li> <li>▪ Accounting and finances</li> <li>▪ Counseling</li> <li>▪ Nail services</li> <li>▪ Legal services</li> <li>▪ Fitness clubs with personal trainers</li> <li>▪ Child day care</li> <li>▪ Hospitals, medical and health care</li> <li>▪ Dental care</li> </ul>	<ul style="list-style-type: none"> <li>▪ Shoe repair</li> <li>▪ Banking services</li> <li>▪ Pest control</li> <li>▪ Pool maintenance</li> <li>▪ Photofinishing services</li> <li>▪ Computer repair</li> <li>▪ Lawn maintenance</li> <li>▪ Appliance repair</li> <li>▪ Dry cleaning and laundry</li> <li>▪ Auto repair and maintenance</li> <li>▪ Plumbing services</li> <li>▪ Veterinarian care</li> <li>▪ Carpet cleaning</li> <li>▪ House cleaning</li> </ul>	<ul style="list-style-type: none"> <li>▪ Land-phone and cable services</li> <li>▪ Health club (Fitness club)</li> <li>▪ Copying/Printing services</li> <li>▪ Airlines</li> <li>▪ Movie theaters</li> <li>▪ Express mail services</li> <li>▪ Amusement and theme parks</li> <li>▪ Budget hotels</li> <li>▪ Car rental services</li> <li>▪ Cafeteria</li> </ul>

### Sampling and Data Collection

An open-ended question survey was employed to gather input to extract additional scales for the constructs, e.g., COCB motivation, COCBs, and customer co-creation values. This survey was conducted online to access respondents who live in a variety of regions and to minimize the risk of interviewer-related bias or errors such as social desirability and prestige (Hair, Brush, and Ortinau, 2003; Braunsberger, Wybenga, and Gates, 2007). Moreover, to achieve the added benefit of the snowball sampling technique, an initial group of 159 college students at a southwest university were employed to complete the survey and/or to recruit additional online participants who were willing to participate in the survey. Each student was requested to distribute the

survey to people who they knew because snowball sampling is effective and accommodative when participants are recruited by trusted friends, family, or group members (Puri, Adams, Ivey, and Nachtigall, 2011). Moreover, snowball sampling allows the researcher to approach, beyond the limits of a student sample, subjects with greater variability in demographic attributes with regard to such factors as age, education, occupation, and residence (Kau and Loh, 2006). The three questionnaire versions were randomly distributed to students who participated in the survey and/or recruited participants (Service Group 1: N=54, Service Group 2: N=53, Service Group 3: N=52). A reminder email message was sent in order to promote completing the survey and recruiting of participants a week later.

Students who distributed the survey to individuals received extra credits toward their class grade. In addition, all respondents who completed this online survey were given an opportunity to win one of four \$25 gift cards. After eliminating incomplete data, a total of 193 usable data sets were obtained for the scale development (Service Group 1: N=82, Service Group 2: N=54, Service Group 3: N=57). The participants of the qualitative survey included 79.8% female respondents and 69.4% Caucasian. Regarding age of respondents, 19.4% were 30 years or older. 55.4% of the sample had some college credit and 21.2% hold a bachelor's degree. In addition, 14.0% of the respondents reported annual household incomes of \$30,000 to \$49,999, 12.4% reported annual household incomes of \$50,000 to \$69,999, and 42.0% reported annual income of more than \$70,000. Compared with the profile of general demographic characteristics in the United States (U.S. Census Bureau, 2000), the respondents were similar to general U.S.



consumers in terms of demographic information (i.e., gender, ethnicity, age, education, and annual household income).

### **Open-Ended Questionnaire Development**

Participants were required to be 18 years old or over and have the ability to read and write in English. The qualitative questionnaires, which consisted of five parts, started with a statement that includes the general definition of a service organization. Part 1 of each version provided respondents with a choice of 10 to 14 examples of service organizations under that specific service group. Respondents, who were randomly assigned to one of the three service groups (i.e., Service Group 1, 2, or 3), were asked if they had had a transaction with the given service sector within the past six months. The three questionnaire versions differed only in this screening question in regard to the service group and examples of service organizations, and included identical questions in the following sections.

Because the primary goal of the current study was to develop a scale that has general applicability, the pooling of data from all three types of service groups was deemed an appropriate method. If respondents had never transacted with one of the service organizations, they were not permitted to take the survey and were provided with an appreciation message (e.g., *“Thank you for your interest in this research project”*). Subsequently, qualified respondents were asked to recall the particular service organization and to provide the name of the service organization in the open-ended question format.

Even though there are some limitations of retrospective design such as recall bias, many researchers in the service marketing literature have utilized retrospective questions

by proposing this procedure to minimize relevant errors: 1) asking for a recent incident (e.g., in the past six months), 2) allowing respondents to choose their own service organization, and 3) providing respondents with enough time to complete the survey (e.g., Holloway and Beatty, 2003; Groth, 2005; Matos et al., 2009). According to Groth (2005), a method based on retrospective design provides an opportunity to capture a huge variety of service organizations and, thus, increase the generalizability of the research findings across the different service domains.

In Part 2, based on the definition and examples of the voluntary and discretionary behaviors (i.e., COCBs) provided to respondents, qualified respondents were asked if they had performed COCBs for the service organization they had indicated previously in the survey. If respondents had performed COCBs in the past, they were directed to answer open-ended questions pertaining to those voluntary behaviors. Additionally, they were asked about COCBs they might exhibit for the service organization in the future. If respondents did not participate in COCBs in the past, they were asked only for potential future voluntary and discretionary behaviors they might execute for their selected service organization. Furthermore, all respondents who either performed COCBs or not answered questions with regard to their observations/knowledge of other customers' voluntary and discretionary behaviors. These questions were also expected to extract more items beyond respondents' own behaviors. Out of 193 respondents, 59.1% answered that they had experienced COCBs for their service organization (N=114), and 54.4% answered that they had observed or heard about COCBs performed by other people (N=105). Additionally, 38.9% of the respondents answered that they had both participated in COCBs and observed or heard about COCBs of other people (N=75).

In Part 3, the respondents who had participated in COCBs were asked about the motivations or beliefs that led them to perform voluntary behaviors. If respondents had not performed COCBs in the past, they were directed to answer a question pertaining to motivations or beliefs that might lead them to future COCBs.

Part 4 contained questions regarding the values, benefits, and positive outcomes they had perceived through their previous actual voluntary and discretionary behaviors. If they had not previously experienced COCBs, respondents answered questions regarding those values and benefits that they would expect to receive through their COCBs. To obtain more detailed and concrete information about customer co-creation value, Part 4 began with a question about general benefits or positive outcomes, and then asked questions regarding economic, individual, and social co-creation value by providing the definition and examples of each dimension of customer co-creation value. Because this research conceptualized these three types as the facets composing customer co-creation value (Sheth et al., 1991; Sweeney and Soutar, 2001), questions regarding these values were specified into three questions. Lastly, the questionnaire contained demographic questions such as gender, age, education, marriage status, and income in Part 5 (see Appendix A).

## **Data Analysis and Results**

### **Item Generation and Purification**

The goal of item generation and purification was to generate an initial pool from the qualitative research and to purify the measurement items that represent each construct

(e.g., COCBs, COCB motivation, and customer co-creation value). An initial pool<sup>3</sup> of 129 items, 114 items, and 342 items was generated to reflect themes of COCBs, COCB motivation, and customer co-creation value, respectively. After completing the data collection, the statements in three themes or constructs—COCBs, COCB motivation, and customer co-creation value—were screened to eliminate the missing and inappropriate items and responses pertaining to irrelevant information, which resulted in 89 items, 92 items, and 216 items, respectively, being dropped. The first judge group comprising five judges—two researchers and three trained judges—were then asked to assess a total of 397 statements (COCBs=89 items, COCB motivation=92 items, customer co-creation value=216 items), assigning the statements to categories based on relevance of each dimension representing each construct.

The step of item purification started with evaluating how clearly each item represents its relevant theme. At this point in the process, all items were retained without reducing redundancies after assessment by the first group of judges. This feature helps to avoid bias that is predetermined by researchers (see Groth, 2005). The second group of judges, two researchers and two trained judges, was given the conceptual definitions for each dimension of the three constructs—COCBs, COCB motivation, and customer co-creation value. Each judge was asked to rate how well each statement represents the different dimensions under each construct, as being either “clearly representative,” “somewhat representative,” or “not representative” of the dimension. If three of the four

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<sup>3</sup> 129 items of COCBs include statements pertaining to COCBs that respondents had performed for their service provider because the current study focuses on COCBs that customers *actually* conducted in the past. 342 items of customer co-creation value contain all values including economic, individual, and social values that respondents had obtained from their previous COCBs. Even though there were many statements with identical meaning and/or wordings, all statements were retained for the initial pool for the purpose of scale development.

judges consistently rated a statement as clearly representative and the fourth judge evaluated it to be somewhat representative, the statements were retained (Bearden, Hardesty, and Rose, 2001; Tian, Bearden, and Hunter, 2001; Zaichkowsky, 1985). More details of item generation and purification for each construct are described in the following section.

### ***COCBs***

After carefully reading the definitions for the four dimensions of COCBs (*feedback, advocacy, helping other customers, and tolerance*), which had been proposed by the previous literature (see Groth, 2005; Yi and Gong, 2013), each judge in the first judging group was asked to allocate the 89 statements to categories based on relevance of each dimension of COCBs. Two additional categories, “others” and “not applicable,” were included to discriminate items that did not belong to the existing dimensions (others) and items that were not related to COCBs per se (not applicable). A statement was retained if at least four of the five judges selected it to the same dimension (see Tian et al., 2001), resulting in 78 items for five dimensions (i.e., *feedback, advocacy, helping other customers, tolerance, and others*).

The retained items demonstrated evidence of the existing COCBs by being categorizable into one of the four dimensions—*feedback, advocacy, helping other customers, or tolerance*. Interestingly, the current study found that items included in the “others” category were classified by two distinct themes: *playing the role of employee* and *courtesy*. For example, respondents mentioned that they voluntarily cleaned up, picked up trash, and advised a service employee in order to help the service organization. Thus, as a type of COCB, the *playing the role of employee* dimension included statements

pertaining to substituting employees' responsibilities or helping operations of the service organization. In addition, the *courtesy* dimension contained items related to generous behaviors to service employees and other customers. Yi and Gong (2013) argue that courteous behaviors such as kindness, politeness, and friendliness are categorized as customer participation behaviors or in-role behaviors, rather than customer citizenship behaviors. However, in the current study, respondents answered that generous or courteous behaviors, which they showed to service employees and/or other customers, were voluntary behaviors. Considering that Yi and Gong's (2013) study is an initial attempt that develops a multidimensional scale of customer co-creation behaviors that consists of both customer participation behaviors (in-role) and customer citizenship behaviors (extra-role), the current study discriminates which category courteous behaviors belong to, i.e., consumers perceive it as a customer citizenship behavior (extra-role).

Next, in order to purify the measure items, four judges in the second judging group evaluated each of 78 items of COCBs. Each judge rated how well each statement represents the different dimensions under COCBs, as being either "clearly representative," "somewhat representative," or "not representative" of the dimension. If three of four judges consistently rated the statement as clearly representative and the fourth judge evaluated it to be somewhat representative, the statements were retained. Through the process of item purification, 26 items were eliminated, leaving 52 items. In order to ascertain if there were additional items that measure each dimension of COCBs, the 52 retained items were compared with existing scale items (Groth, 2005; Yi and Gong, 2013). Supporting the previous research (Groth, 2005; Yi and Gong, 2013), most

of the items were found to correspond to one of the existing items that measure each dimension of COCBs. Thus, the findings at the item purification stage confirmed that the existing scale items are appropriate to measure all the four of the existing dimensions of COCBs (*feedback*, *advocacy*, *helping other customers*, and *tolerance*) plus two more dimensions this study redeveloped (*playing employee* and *courtesy*). In the 52 retained items, there were numerous statements with identical meanings because the present study retained all responses to avoid bias that is prejudged by researchers. With an effort to reduce redundancies, items with identical meanings were eliminated at this point in the process, and then a total of 28 items was retained.

Comparing the previously-established scale items of COCBs, the current research revealed two additional items for the *feedback* dimension and one additional item for the *advocacy* dimension. As shown in Table 3, when customers received either good or poor service, they might inform the service organization. Even though Groth (2005) found a similar item, it was different from the finding of this study because his item considered only receiving good services. Additionally, customers tended to leave feedback about what they received from the service organization through a website of the service organization. For the *advocacy* dimension, the qualitative data analysis revealed one additional item, “I have shared with others my positive experiences with the service organization via social media.” These last two newly developed items reflect the current phenomenon of how social media has become a relatively new and meaningful vehicle that can promote service organizations and communication among customers.

In addition to new items in the *feedback* and *advocacy* dimensions, this stage uncovered four additional items in the *tolerance* dimension. Because service failure is

one of the most important factors influencing customer satisfaction and loyalty in the service industry (McCollough, Berry, and Yadav, 2000; Hess, Ganesan, and Klein, 2003), these four items that include situations where service failure or mistakes occur may need to be considered as reasonable items to measure customer tolerance. The four items were “I have been kind and considerate even though a mistake was made,” “I have tipped well even though a mistake was made,” “I have not complained when a mistake was made,” and “I have reminded the service organization about my need when the service was not delivered as expected.”

*Playing employee* and *courtesy*, newly found dimensions of COCBs at the item purification stage of this study, contained four items (e.g., “I have cleaned up my mess”) and three items (e.g., “I have tried to be kind and polite to employees who work at the service provider”), respectively. However, additional items in the *helping other customers* dimension were not found by this qualitative study. Table 3 provides items and dimensions pertaining to COCBs that were extracted at the item purification stage.

**Table 3.** COCBs: Dimensions and Scale Items at the Item Purification Stage

COCB - Dimensions and Scale Items	
<b>Feedback</b>	
1.	When I have had a useful idea on how to improve service, I let the service organization know.
2.	When I have received good service from the service organization, I commented about it.
3.	When I have experienced a problem, I let the service provider know about it.
4.	When I have had feedback about the service, I filled out a customer survey form.
5.	<i>I have informed the service provider about great or poor service received from an individual employee. (NEW)</i>
6.	<i>When I have had feedback about the service, I provided comments through the service provider's website. (NEW)</i>
<b>Advocacy</b>	
1.	I have said positive things about the service provider and/or its employees to others.
2.	I have recommended the service provider to others.
3.	I have encouraged friends and relatives to use the service organization.
4.	<i>I have shared with others my positive experiences with the service provider via social media. (NEW)</i>

(table continues)



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### COCB - Dimensions and Scale Items

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#### **Helping other customers**

1. I have assisted other customers when they needed my help.
  2. I have helped other customers when they seemed to have problems.
  3. I have taught other customers to use the service correctly.
  4. I have given advice to other customers.
- 

#### **Tolerance**

1. I have put up with it when the service was not delivered as expected.
  2. I have been patient and waited for the employee to recover from a mistake.
  3. I have adapted to the situation when I have waited longer than I expected to receive the service.
  4. *I have been kind and considerate even though a mistake was made. (NEW)*
  5. *I have tipped well even though a mistake was made. (NEW)*
  6. *I have not complained when a mistake was made. (NEW)*
  7. *I have reminded the service organization about my need when the service was not delivered as expected. (NEW)*
- 

#### **Playing employee**

1. *I have cleaned up my mess. (NEW)*
  2. *When I have seen trash, I have picked it up. (NEW)*
  3. *I have helped the service provider with some of its operations. (NEW)*
  4. *I have helped an employee out by explaining how operational procedures of the service provider should be carried out. (NEW)*
- 

#### **Courtesy**

1. *I have tried to be kind and polite to employees who work at the service provider. (NEW)*
  2. *I have tried to be kind and polite to other customers of the service provider. (NEW)*
  3. *I have generously tipped employees of the service provider, as I typically do. (NEW)*
- 

*Note: \* Italicized statements indicate newly-found items at the stage of item purification.*

### **COCB Motivation**

Because COCB motivation is a new construct that does not have particular scale items that measure it, the main purpose of the scale generation stage was to develop dimensions and to categorize the relevant items to the developed dimensions. Five judges who belonged to the first judging group were given the definition and a related explanation regarding COCB motivation (see Table 4). In addition, even though they were given some examples of dimensions pertaining to COCB motivation, the number of dimensions that could be created was not predetermined, that is, the judges could decide the dimensions based on their own judgment.

The dimensions that were chosen by four of the five judges (at least 75% overlap) (Greenberg, 1986) were retained. Eliminating the eight items that were not related to COCB motivation per se ('not applicable' category) from 92 items, this procedure produced five dimensions with 84 items that represent COCB motivation, regardless of the type of service group. The five dimensions can be explained by the following themes—*Personal principles/beliefs about treatment of others* (Theme 1), *Expectation of (in)tangible benefits to oneself* (Theme 2), *Understanding the challenges of the service business* (Theme 3), *Support/bolstering of the service organization* (Theme 4), and *Reward for good service/relationship with the service organization* (Theme 5). The first two themes, i.e., *Personal principles/beliefs about treatment of others* (Theme 1) and *Expectation of (in)tangible benefits to oneself* (Theme 2), reflect personal aspects of behavioral motivation, as customer voluntary behaviors may be motivated by the customers' own philosophies or mottos, such as "individuals should do to others as they would have others do to them." In addition, customers may expect specific benefits through their voluntary behaviors, including two types of benefits: tangible and intangible. For instance, customers may expect tangible rewards such as discounts and free service when they help their service organization. As for intangible benefits, subjective attitudes and perceptions not expressed in economic and physical terms or benefits, they also expect to receive recognition or special treatment by the service organization. Included in this theme are expected benefits related to feelings of self-contentment such as feeling good or feeling pride of achievement.

The findings also revealed that customers may be motivated by social influences or aspects. For example, customers may understand how challenging the service business

is (Theme 3: *Understanding the challenges of the service business*) and want to support success and growth of the service organization (Theme 4: *Support/Bolstering of the service organization*). Additionally, when customers have a positive evaluation or positive feelings regarding the performance that the service organization has performed and/or have been in a good relationship with the service organization, they may want to reward the service organization for its good performance and/or relationship with them by performing beneficial behaviors for the service organization (Theme 5: *Reward for good service/relationship with the service organization*). The qualitative portion of this current study found this theme as one of the motivations that lead customers to participate in COCBs. Table 4 presents concepts pertaining to the five themes and examples of actual responses that were provided by survey participants in the item generation stage.

**Table 4.** COCB Motivation: Theme, Conceptual Definition, and Examples

COCB Motivation Themes, Conceptual Definitions, and Examples	Number of Statements
<p><b>Theme 1:</b> Personal principles/beliefs about treatment others</p> <p><u>Definition:</u> Beliefs and philosophies that individuals should treat others with kindness</p> <p><u>Examples:</u> <i>"I believe that everyone should be treated with respect and kindness. Customers should be patient and understanding when mistakes are made. I live by the golden rule, treat others how you want to be treated."</i></p>	19
<p><b>Theme 2:</b> Expectations of (in)tangible benefits to oneself</p> <p><u>Definition:</u> Expectation about a tangible benefit (e.g., discounts, free service, a position with the company, etc.) and/or an intangible benefit (e.g., feeling good about themselves, being recognized by the service organization, etc.) being received after performing the COCB</p> <p><u>Examples:</u> <i>"I was motivated by thoughts that I should not only help the business, but also make me feel accomplished and satisfied as I helped out in a positive way."</i></p> <p><i>"I am often motivated to provide feedback because I want to be incentivized. In my past experiences, I have taken customer surveys on receipts in order to acquire a coupon for my next transaction."</i></p>	5

(table continues)

COCB Motivation Themes, Conceptual Definitions, and Examples	Number of Statements
<p><b>Theme 3:</b> Understanding challenge of service business</p> <p><u>Definition:</u> Understanding that operating a service business and providing services to customers can be challenging</p> <p><u>Examples:</u> <i>“I understand that everyone makes mistakes because it is hard to run a business.”</i></p> <p><i>“I have always felt that trying to relate to how busy the restaurant is can and should be taken into account. ...”</i></p>	18
<p><b>Theme 4:</b> Support/Bolster the service organization</p> <p><u>Definition:</u> Hope for improvements to be made in the service in the future or to maintain the current good service levels and desires to encourage the service organization</p> <p><u>Examples:</u> <i>“I thought it was important for them to know how their ATM services were performing and how they could be improved.”</i></p> <p><i>“I hoped the owner and this restaurant would succeed.”</i></p>	29
<p><b>Theme 5:</b> Reward for good service/relationship with the service organization</p> <p><u>Definition:</u> Positive feelings or evaluations towards performance of the service organization and/or good relationship with the service organization</p> <p><u>Examples:</u> <i>“I felt that when I was treated with excellent customer service, I wanted to reward the company by word-of-mouth advertisement.”</i></p> <p><i>“Because I felt that they did a good job and treated me with respect, I should also respect them as well.”</i></p>	13

The second judging group for item purification assessed how well each statement represents the different themes under COCB motivation as either “clearly representative,” “somewhat representative,” or “not representative”. The judgment procedure conducted by the second judging group resulted in the retention of 49 items, removing 35 items. Because COCB motivation does not have extant scale items, a total of 49 items were sorted into one of the five themes that were developed by the previous step of the judges’ analysis—Theme 1: *Personal principles/beliefs about treatment of others*, Theme 2: *Expectation of (in)tangible benefits to oneself*, Theme 3: *Understanding of the challenges of the service business*, Theme 4: *Support/Bolstering of the service organization*, and Theme 5: *Reward for good service/relationship with the service organization*. Like the item pools that represent COCBs, 49 items included numerous statements with identical

meanings and similar wordings because all response from individuals were retained to avoid bias that is predetermined by researchers. At this point, items with identical meanings or wording were eliminated in order to minimize redundancies, retaining a pool of 26 items for validity and reliability testing (see Table 5).

Theme 1, *Personal principles/beliefs about treatment of others*, had five items including “When I performed my voluntary behaviors, I was motivated by beliefs that helping others was the right thing to do” and “When I performed my voluntary behaviors, I was motivated by beliefs that I do to others, as I would have them do to me.” The second theme, *Expectation of (in)tangible benefits to oneself*, included nine items (e.g., “When I performed my voluntary behaviors, I was motivated by thoughts that my voluntary behaviors would allow me to have a better service experience”). In the third theme, *Understanding the challenges of the service business*, there were five items such as “When I performed my voluntary behaviors, I was motivated by thoughts that the tasks the service organization performed were tough and challenging.” The *Support/Bolstering of the service organization* theme (Theme 4) retained four items, and the *Reward for good service/relationship with service organization* theme (Theme 5) contained three items as shown in Table 5.

**Table 5.** COCB Motivation: Dimensions and Scale Items at the Item Purification Stage

COCB Motivation - Dimensions and Scale Items	
<b>Theme 1: Personal principles/beliefs about treatment of others</b>	
When I performed my voluntary behaviors, I was motivated by <i>beliefs</i> that ...	
1. ... it is worthwhile to help others out.	
2. ... everyone should be treated with respect and kindness	
3. ... helping others is the right thing to do.	
4. ... helping others makes me a good person.	
5. ... I should do to others as I would have them do to me.	

(table continues)

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### COCB Motivation - Dimensions and Scale Items

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#### **Theme 2: Expectation of (in)tangible benefits to oneself**

When I performed my voluntary behaviors, I was motivated by *thoughts* that ...

1. ... my voluntary behaviors would ultimately benefit me as I might take advantage of the provider's services in the future.
2. ... I might be given an incentive for my voluntary behaviors.
3. ... my voluntary behaviors would allow me to have a better service experience.
4. ... my voluntary behaviors would prevent the service provider from retaliating against me.
5. ... my voluntary behaviors would benefit my own career.

When I performed my voluntary behaviors, I was motivated by *desires* to...

6. ... feel a sense of accomplishment with my voluntary behaviors.
  7. ... feel satisfied with my voluntary behaviors.
  8. ... experience personal growth.
  9. ... feel that I have made a positive impact on the service/situation.
- 

#### **Theme 3: Understanding the challenges of the service business**

When I performed my voluntary behaviors, I was motivated by *thoughts* that ...

1. ... the tasks that the service provider performed were tough and challenging.
  2. ... it is reasonable for me to understand the human side of the service provider's operation.
  3. ... the service provider might make mistakes due the difficulty of providing perfect service.
  4. ... my voluntary participation would make the service provider's task easier.
  5. ... the service provider was doing its best under the circumstances.
- 

#### **Theme 4: Support/Bolstering of the service organization**

When I performed my voluntary behaviors, I was motivated by *thoughts* that ...

1. ... my voluntary behaviors would help the service provider grow and advance.
  2. ... my voluntary behaviors would provide the service provider with opportunities for improving the current service level.
  3. ... my voluntary behaviors would make the service provider and/or employees happy and encouraged.
  4. ... my voluntary behaviors would help the continuing success of the service provider.
- 

#### **Theme 5: Reward for good service/relationship with the service organization**

When I performed my voluntary behaviors, I was motivated by *thoughts* that ...

1. ... the service provider had done a good job.
  2. ... I was in a friendly and/or good relationship with the service provider.
  3. ... they had treated me in the best possible way.
- 

### ***Customer Co-Creation Value***

In order to categorize the measurement items pertaining to customer co-creation value to a relevant dimension, the five judges who constituted the first judging group were asked to read the definition and explanation of three dimensions—economic,

individual, and social—of customer co-creation value. Then they assigned 216 statements, obtained after eliminating the inappropriate items and irrelevant responses from the initial pool, to one of the three dimensions or “others” or to “not applicable.” The result of this procedure showed that there were no statements in the “others” category, which means that there is no additional dimension of customer co-creation value. The statements that were not selected by at least four of the five judges and the statements that were allocated to the “not applicable” category were dropped, retaining 149 items under the three dimensions—economic, individual, and social—of customer co-creation value.

Next, the second judging panel evaluated how well each statement represents the relevant dimensions under customer co-creation value, based on the criteria: “clearly representative,” “somewhat representative,” or “not representative.” Out of 149 items, a total of 79 items were retained after the judging procedure of stage of item purification. By integrating items with identical meanings and comparing those with the existing scale items (see Chan et al., 2010; Dong et al., 2008), 25 items remained for the three dimensions of customer co-creation value— economic, individual, and social co-creation value. In this study, economic co-creation value refers to customer perceptions of service quality, customized services, and customer control during and/or after voluntarily participating in the service delivery process (Chan et al., 2010) and financial, physical, and mental rewards that customers may obtain from their investment or sacrifice when voluntarily participating in the service delivery process. Individual co-creation value is defined as a customer’s feelings of accomplishment and enjoyment during and/or after voluntarily participating in the service delivery process, including feeling a sense of goal

achievement through accomplishment, pleasure, prestige, and personal growth from engaging in COCBs. In addition, social co-creation value means the customer's sense of enjoyable interaction with and social approval from service organizations during and/or after the service delivery process. It also includes the sense derived from developing a good relationship with service organizations through COCBs.

For economic co-creation value, two items in the existing measures were not revealed through this study, namely "My voluntary participation allows me to receive more control over the services quality" and "My voluntary participation allows me to receive less service failure". Rather, the findings of this qualitative research uncovered an additional five items pertaining to monetary benefits or financial rewards, resulting in a total of eight items in economic co-creation value. Similarly, one of the five existing items that represent individual co-creation value was not uncovered in this qualitative stage: "My voluntary participation allows me to feel independence." However, the results of the qualitative data analysis showed seven potential items for individual co-creation value (Table 6). In addition, there were three additional items in social co-creation value, resulting in a total of six items achieved by summing the existing three items.

**Table 6.** Customer Co-Creation Value: Dimensions and Scale Items at the Item Purification Stage

<b>Customer Co-Creation Value - Dimensions and Scale Items</b>	
<b>Economic Co-creation Value</b>	
	My voluntary behaviors allowed me to ...
1.	... receive higher quality services.
2.	... receive more customized services.
3.	... receive more professional services.
4.	... save time in service delivery. (NEW)
5.	... save costs for service delivery. (NEW)
6.	... receive greater efficiency in service delivery. (NEW)
7.	... gain more value for my money. (NEW)
8.	... receive rewards (e.g., discounts, coupons, and/or free offerings). (NEW)

(table continues)



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### Customer Co-Creation Value - Dimensions and Scale Items

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#### Individual Co-creation Value

My voluntary behaviors allowed me to ...

1. ... have feelings of accomplishment.
  2. ... have feelings of enjoyment.
  3. ... feel innovative in how I interacted with the service provider.
  4. ... have increased confidence in my skills.
  5. ... *have a sense of pride. (NEW)*
  6. ... *have feelings of satisfaction. (NEW)*
  7. ... *have good feelings about myself. (NEW)*
  8. ... *have a good experience working with others. (NEW)*
  9. ... *learn about the service provider's operations. (NEW)*
  10. ... *learn about the service provider's policies. (NEW)*
  11. ... *learn about how the service provider treats its customers. (NEW)*
- 

#### Social Co-creation Value

My voluntary behaviors allowed me to ...

1. ... build a better relationship with the service provider.
  2. ... make the service interaction more enjoyable.
  3. ... receive relational approval from the service provider.
  4. ... *have feelings of affiliation/involvement. (NEW)*
  5. ... *be a friend to the service employees. (NEW)*
  6. ... *be recognized by the service provider. (NEW)*
- 

*Note:* \* Italicized statements indicate newly-found items through the stage of item purification.

#### Item Validation

##### *Survey Instrument, Sampling, and Data Collection*

In an effort to refine the scale items for COCBs, COCB motivation and customer co-creation values and to examine their psychometric properties, this study incorporated existing scales and the newly-developed scale items. Similar to the qualitative research component, three versions of the survey, each standing for the three distinct types of service group, were used to collect the data for item validation. The survey instrument started with a question asking participants to identify a particular service organization (e.g., restaurant, banking services, or airlines) and the name of the service business (e.g., Denny's, Chase, or United Airlines), within the service group assigned, a business with

which they had had a transaction in the prior six months. The following section of the survey instrument included question statements pertaining to COCBs directed toward the service organization, COCB motivation, and customer co-creation value, incorporating existing scales and this study's newly-developed scale items.

As in the qualitative research component, a snowball technique was utilized to collect the data. A total of 117 college students were asked to complete the survey and/or to recruit individuals whom they knew. Respondents were randomly assigned to one of the three versions of the online survey instrument, the versions representing three types of service group. The present study collected data from a total of 332 respondents who had transacted with a specific service organization in the prior six months.

Items related to COCBs were measured by using 7-point Likert Scale (1=strongly disagree; 7=strongly agree). If respondents answered, on average, less than 3.00 on performing COCBs, they were eliminated from the current study, under the assumption that they had not performed any type of COCBs. After eliminating incomplete data and data of respondents who did not actively perform COCBs, a total of 310 respondents were utilized as the sample for the exploratory analysis (Service Group 1: N=112, Service Group 2: N=101, and Service Group 3: N=97). Gender distribution of participants was 31% male and 69% female. Ethnic distribution was as follows: 66.1% Caucasian, 18.1% Asian/Asian-American, 10.3% Hispanic-American, and 5.5% others. Of the respondents, 20.6% reported annual household incomes of \$10,000 to \$49,999, 24.2% reported annual household incomes of \$50,000 to \$89,999, and 35.5% reported annual income of more than \$90,000. Regarding education, 66.8% of the sample had at least some college credit, among which 23.3% hold a bachelor's degree and 5.1% hold a graduate college degree.

The characteristics of respondents represent the profile of general demographic characteristics in the United States.

A MANOVA test was conducted to detect whether there was a significant difference among the three service-type groups with regard to the three constructs under study—COCBs, COCB motivation, and customer co-creation value. The results of MANOVA and post-hoc tests showed that the three service groups do not differ from each other in regard to COCBs ( $p=.108$ ) and COCB motivation ( $p=.533$ ), but differed from each other in terms of customer co-creation value ( $p=.045$ ). In order to assess whether service groups should be included as a control variable in the analysis, regression analysis was conducted with customer co-creation value as the dependent variable. The result revealed that there was no significant change in the value and significant level of the path coefficient in the regression model when including the service groups as a control variable. Thus, all data from three versions of the survey were combined to conduct the following analyses.

### ***Dimensionality, Reliability, and Validity Testing***

As recommended by Churchill (1979), corrected item-to-total correlations and item correlations for each set of items were conducted to refine the scale and to improve the reliability or alpha value of underlying dimensions that represent each construct—COCBs, COCB motivation, and customer co-creation value. Items that had low corrected item-to-total correlations ( $\leq .50$ ) and those that had low correlation with other items ( $\leq .30$ ) were eliminated (Bearden et al., 2001; Zaichkowsky, 1985), resulting in improvement in the alpha value. Exploratory factor analysis (EFA), using principal components analysis with varimax rotation, was applied at this stage as it is an appropriate method not only to

ascertain how well items load on non-hypothesized factors but also to identify the number of factors representing a specific construct (Kelloway, 1995). In this process, items that had low commonalities ( $\leq .30$ ), high cross-loadings ( $\geq .40$ ), and low factor loading ( $\leq .50$ ) were deleted from further analysis (Hair, Black, Babin, and Anderson, 2009).

In order to confirm dimensionality and to evaluate internal consistency, construct validity, and discriminant validity of the scale of each construct, a confirmatory factor analysis (CFA) was conducted using AMOS 18.0 software. If items did not have acceptable item reliability ( $\geq .50$ ) and worsened construct validity ( $\geq .70$ ) and the average variance extracted (AVE) ( $\geq .50$ ) of a relevant dimension, they were eliminated from the set of items (Fornell and Larcker, 1981; Bagozzi and Yi, 1988). To assess discriminant validity, the AVE of each factor was compared with the squared intercorrelation coefficient (SIC) between factors. If AVE is greater than SIC between factors, discriminant validity is satisfactory (Fornell and Larcker, 1981). As another way to evaluate discriminant validity, a chi-square difference test was conducted by fixing the correlation between various factors at 1.0 and then re-estimating the measurement model (see Segars and Grover, 1993). According to Bagozzi and Phillips (1982), if the chi-square value for the constrained model is significantly greater than that of the unconstrained model, discriminant validity is confirmed. Thus, dimensionality, reliability, construct validity, and discriminant validity of the scale of each construct were assessed as follows.

### *COCBs*

Through an iterative process of the corrected item-to-total correlations and item correlations analysis, a total of 12 items was removed, retaining 16 items. With the purpose to detect the number of factors representing COCBs, the results of EFA showed that there were no items that had low commonalities ( $\leq .30$ ), high cross-loadings ( $\geq .40$ ) and low factor loading ( $\leq .50$ ). Thus, all 16 items were retained at the satisfactory level. Even though the item purification stage suggested that there were six conceptual dimensions representing COCBs, i.e., *feedback*, *advocacy*, *helping other customers*, *tolerance*, *playing the role of employee*, and *courtesy*, the result of EFA loaded four dimensions at an eigenvalue exceeding 1 with 64.72% of the total variance. The four dimensions corresponded to four dimensions of COCBs that were suggested by the previous research (see Yi and Gong, 2013): *Helping*, *Advocacy*, *Tolerance*, and *Feedback*. Internal consistency of the four constructs ranged from .73 to .88, and construct reliability of each construct and model fit met the satisfactory standards ( $\chi^2_{(91)}=226.229$ ,  $p<.000$ , CFI=.932, TLI=.911, IFI=.933, RMSEA=.069) (see Table 7). Even though AVE of *Tolerance* and *Feedback* were somewhat low, a decision was made to retain all items under the four factors. Most of the items, except for the three that were newly found through this study, were existing scale items developed through rigorous processes in previous research. EFA and construct validity of each construct was satisfactory.

**Table 7.** COCBs: Scale Items and Reliability

Factors/Items	EFA				CFA		
	F1	F2	F3	F4	Std. Loading	CR	AVE
<b>Factor 1: Helping</b>							
1. I have assisted other customers when they needed my help.	.78				.61		
2. I have helped other customers when they seemed to have problems.	.76				.69		
3. I have taught other customers to use the service correctly.	.69				.76	.83	.50
4. I have given advice to other customers.	.73				.77		
5. <i>I have helped the service organization with some of its operations. (NEW)</i>	.70				.65		
<b>Factor 2: Advocacy</b>							
1. I have encouraged friends and relatives to use the service organization.		.88			.88		
2. I have recommended the service organization and the employee to others.		.86			.91	.89	.72
3. I have said positive things about the service organization and the employee to others.		.83			.75		
<b>Factor 3: Tolerance</b>							
1. I have been patient and waited for the employee to recover from a mistake.			.74		.74		
2. I have put up with it when the service was not delivered as expected.			.70		.45		
3. I have adapted to the situation when I have waited longer than I expected to receive the service.			.69		.62	.74	.42
4. <i>I have been kind and considerate even though a mistake was made. (NEW)</i>			.67		.74		
<b>Factor 4: Feedback</b>							
1. When I have had feedback about the service, I filled out a customer survey form.				.73	.72		
2. When I had a useful idea on how to improve service, I let the service organization know.				.69	.66	.74	.42
3. When I experienced a problem, I let the service organization know about it.				.66	.54		
4. <i>I have informed the service provider about great or poor service received from an individual employee. (NEW)</i>				.70	.66		
Eigenvalue	3.05	2.74	2.30	2.28	<b>Model fit</b>	$\chi^2_{(91)}=226.229$	
Variance %	19.03%	17.11%	14.35%	14.23%		CFI=.932	
Cronbach's alpha	.83	.88	.73	.73		TLI=.911	
						IFI=.933	
						RMSEA=.069	

*Note:* CR=Construct Reliability, AVE=average variance extracted, CFI=Comparative Fit Index, TLI=Tucker-Lewis Index, IFI=Incremental Fit Index, RMSEA=Root Mean Square Error of Approximation; Italicized statements indicate the newly-developed scale items through the current study and non-italicized statements mean the existing scale items in the prior studies.

In addition, as shown in Table 8, discriminant validity among four dimensions of COCBs was confirmed because AVE is greater than SIC between factors (Fornell and Larcker, 1981) except one between *Helping* and *Feedback*. To assess discriminant validity between *Helping* and *Feedback*, the test of chi-square difference between the unconstrained model and the constrained model was conducted and the results showed significant increase ( $\Delta\chi^2=6.02$ ,  $\Delta df=1$ ,  $p<.05$ ). Thus, discriminant validity among all four dimensions of COCB motivation were confirmed.

**Table 8.** Convergent and Discriminant Validity: COCBs

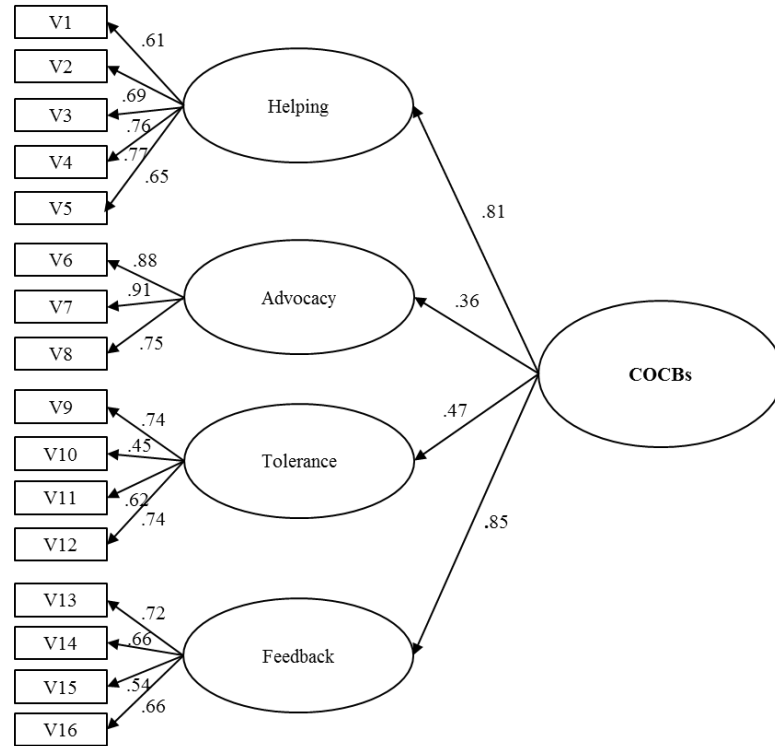
Factor	1	2	3	4	Mean	SD
1. Helping	<b>.50</b>	.08	.15	.47	4.15	1.21
2. Advocacy		<b>.72</b>	.35	.11	5.45	1.19
3. Tolerance			<b>.42</b>	.15	5.09	0.99
4. Feedback				<b>.42</b>	4.28	1.20

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

Previous studies that have developed scale items to measure COCBs have confirmed a second-order factor construct of COCBs (see Groth, 2005; Yi and Gong, 2013). Thus, a second-order CFA was conducted in an effort to assess if the COCB construct has satisfactory reliability and validity, combining the newly-found three items into the existing scales. All dimensions of the COCB construct were found to be significantly and positively related to the second-order construct as revealed by good model fit:  $\chi^2_{(92)}=226.961$ ,  $p<.000$ , CFI=.933, TLI=.912, IFI=.934, RMSEA=.069. Thus, the results support that the four dimensions--*Helping*, *Advocacy*, *Tolerance*, and

*Feedback*, serve as indicator variables for the corresponding second-order factor, COCBs (see Figure 3).

**Figure 3.** Second-Order Factor Analysis of COCBs



**Model Fit:**  $\chi^2=226.961$ ,  $df=92$ , CFI=.933, TLI=.912, IFI=.934, RMSEA=.069

### *COCB Motivation*

With an iterative process of calculating the alpha value and item-to-total correlation, a total of 22 items representing COCB motivation were retained, eliminating 4 items. EFA was applied at this stage as it is an appropriate method not only to ascertain how well items load on non-hypothesized factors but also to identify the number of factors representing a specific construct (Kelloway, 1995). The results of EFA deleted eight items that had unsatisfactory levels of commonality, cross-loading, and factor loading. In analyzing the 14 retained items, four dimensions were loaded based on an eigenvalue exceeding 1, explaining 78.11% of the total variance. Even though the



judgment procedure on the qualitative analysis of the present study revealed that COCB motivation might conceptually consist of five dimensions, the results of the EFA found that a total of 14 items were retained into four dimensions representing COCB motivation: 1) *Self-enhancement* ( $\alpha=.92$ ), 2) *Personal principles* ( $\alpha=.83$ ), 3) *Desire to support the service organization* ( $\alpha=.78$ ), and 4) *Perception of the service organization's past performance* ( $\alpha=.86$ ).

*Self-enhancement* means an individual's desire to feel achievement or improve self-esteem through voluntary participating behaviors. *Personal principles* represent an individual's enduring beliefs or fundamental norms regarding behaviors that are right and ethical. Additionally, the third dimension that represents COCB motivation, *Desire to support the service organization*, is defined as an individual's aspirations or desires to encourage growth/success of the service organization and to improve the current level of service. Lastly, *Perception of the service organization's past performance* refers to the individual's evaluation or feelings regarding performance that the service organization has conducted in the past. These final four dimensions reflect two aspects of behavioral motivations: personal and social aspects (see Glasford, 2008). In particular, the first two dimensions, *Self-enhancement* and *Personal principles*, are related to a personal aspect, whereas *Desire to support the service organization* and *Perception of the service organization's past performance* reflect a social aspect.

Through a CFA process, which was conducted to assess the dimensionality, internal consistency, construct validity, and discriminant validity of the newly-developed scale of COCB motivation, one item in *Personal principles* and one item in *Desire to support the service organization* were deleted because they did not have acceptable item

reliability ( $\geq .50$ ) and worsened construct validity and the AVE of each dimension.

Excluding those two items, internal consistency ( $\geq .50$ ), construct reliability ( $\geq .70$ ), and AVE ( $\geq .50$ ) of all three factors were satisfied with recommended standards for reliability and dimensionality ( $\chi^2_{(46)} = 136.372$ ,  $p < .000$ , CFI=.962, TLI=.946, IFI=.963, RMSEA=.080) (see Table 9).

**Table 9.** COCB Motivation: Scale Items and Reliability

Factors/Items	EFA				CFA		
	Factor 1	Factor 2	Factor 3	Factor 4	Std. Loading	Construct Reliability	AVE
<i>When I performed my voluntary behaviors, I was motivated by thoughts/desires that ...</i>							
<b>Factor 1: Self-enhancement</b>							
<i>... I would feel satisfied with my voluntary behaviors.</i>	.89				.95		
<i>... I would feel a sense of accomplishment with my voluntary behaviors.</i>	.88				.93	.92	.80
<i>... I would experience personal growth.</i>	.81				.79		
<b>Factor 2: Personal principles</b>							
<i>... helping others is the right thing to do.</i>		.81			.75		
<i>... everyone should be treated with respect and kindness.</i>		.87			.75	.79	.56
<i>... it is worthwhile to help others out.</i>		.62			.76		
<b>Factor 3: Desire to support the service organization</b>							
<i>... my voluntary behaviors would help the service provider grow and advance.</i>					.72		
<i>... my voluntary participation would make the service provider's task easier.</i>			.84		.72	.78	.54
<i>... my voluntary behaviors would provide the service provider with opportunities for improving the current service level.</i>			.66		.72		
			.76		.77		
<b>Factor 4: Perception of the service organization's past performance</b>							
<i>... the service provider had treated me in the best possible way.</i>				.79	.81		
<i>... the service provider had done a good job.</i>				.57	.80	.84	.63
<i>... the service provider was doing its best under the circumstances.</i>				.81	.77		
Eigenvalue	2.64	2.47	2.20	2.04	<b>Model fit</b>	$\chi^2_{(46)}=136.372$	
Variance %	22.03%	20.56%	18.32%	17.20%		CFI=.962	
Cronbach's alpha	.92	.83	.78	.86		TLI= .946	
						IFI=.963	
						RMSEA=.080	

*Note:* CR=Construct Reliability, AVE=average variance extracted, CFI=Comparative Fit Index, TLI=Tucker-Lewis Index, IFI=Incremental Fit Index, RMSEA=Root Mean Square Error of Approximation; Italicized statements indicate the newly-developed scale items through the current study and non-italicized statements mean the existing scale items in the prior studies.

To assess discriminant validity, the AVE of each factor was compared with the SIC between factors (see Table 10). All AVE values were greater than the SICs between factors except one between *Personal Principles* and *Perception of the service organization's past performance*. However, the test of chi-square difference between the unconstrained model and the constrained model between the two factors showed significant increase, confirming discriminant validity between *Personal principles* and *Perception of the service organization's past performance* ( $\Delta\chi^2=4.95$ ,  $\Delta df=1$ ,  $p<.05$ ). Thus, all three dimensions of COCB motivation were satisfied with the recommended criterion, indicating sufficient discriminant validity.

**Table 10.** Convergent and Discriminant Validity: COCB Motivation

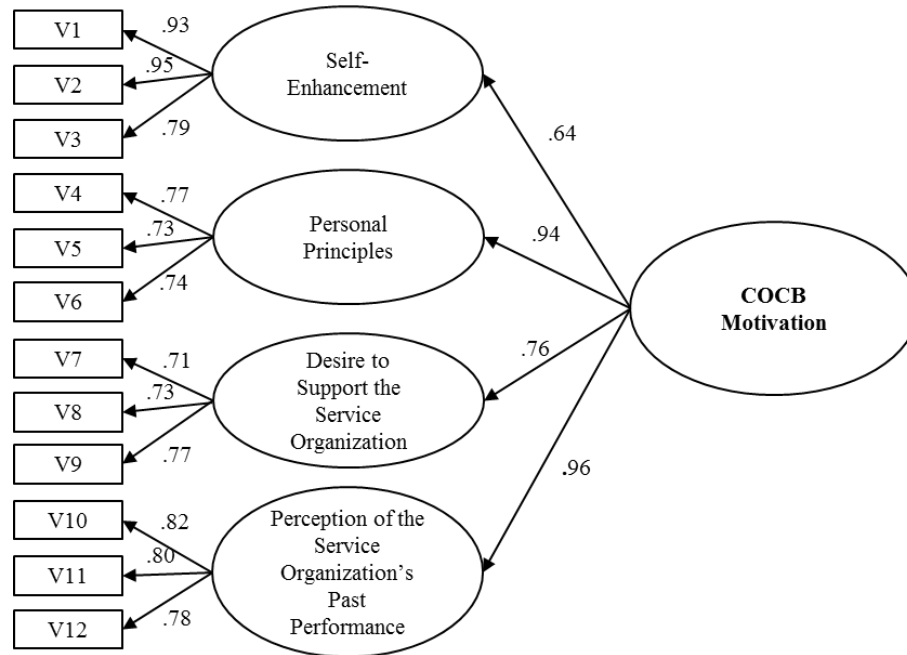
Factor	1	2	3	4	Mean	SD
1. Self-enhancement	<b>.80</b>	.36	.38	.32	5.29	1.30
2. Personal principles		<b>.56</b>	.42	.85	5.87	1.08
3. Desire to support the service organization			<b>.54</b>	.53	4.92	1.18
4. Perception of the service organization's past performance				<b>.63</b>	5.39	1.12

*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 COCB motivation construct. All dimensions of the COCB motivation construct were found to be significantly and positively related to the second-order construct as revealed by good model fit:  $\chi^2_{(48)}=156.444$ , CFI=.955, TLI=.938, IFI=.955, RMSEA=.086. Thus, the results support that the four dimensions—*Self-enhancement*, *Personal principles*, *Desire to support the service organization*, and *Perception of the service organization's past performance*—serve as indicator variables for the corresponding second-order factor, COCB motivation (see Figure 4).

The current study has hypothesized the positive impact of COCB motivation on COCBs as Hypothesis 1. By testing H1 with the main data through the quantitative research, the nomological validity of COCB motivation, the impact of COCB motivation on COCBs, will be also tested in Chapter 5.

**Figure 4.** Second-Order Factor Analysis of COCB Motivation



**Model Fit:**  $\chi^2=156.444$ ,  $df=48$ , CFI=.955, TLI=.938, IFI=.955, RMSEA=.086

#### *Customer Co-creation Value*

As for the COCB construct and COCB motivation construct, an iterative process of calculating the alpha value and item-to-total correlation as well as EFA were also carried out to confirm item validation of the customer co-creation value construct.

According to the literature (see Chan et al., 2010; Nsairi, 2012; Dong et al., 2008), it is proposed that there are three facets representing customer co-creation value that customers may perceive through their voluntary behaviors such as COCBs—*Economic*, *Individual*, and *Social co-creation value*. However, even though numerous repetitions of

the item-to-total correlation and EFA were performed, at this point the results of item validation of customer co-creation value were not satisfactory, not showing appropriate factor loading of items that represent each value dimension. Thus, all 25 items, developed at the item purification stage, were retained for the quantitative research. With more data obtained from the quantitative research component, item validation of customer co-creation value was re-tested.

## **CHAPTER 5**

### **HYPOTHESES TESTING THROUGH QUANTITATIVE RESEARCH**

Chapter 5 describes the quantitative research designed to test hypotheses related to the causal relationships in the conceptual model. The first section begins with the research methodology, including the study context, sampling, data collection, and questionnaire development. The section also introduces the operational definition and measures of each construct proposed in the conceptual model. The second section, data analysis and results, describes the processes of data analysis and its results as based on three parts of the proposed theoretical model: 1) social exchange-based antecedents, 2) personality-based antecedents, and 3) consequences of COCBs. Additionally, to better understand the entire mechanism in regard to antecedents and consequences of COCBs, the comprehensive model, which includes both antecedents and consequences of COCBs simultaneously, is tested.

### **Research Methodology**

#### **Questionnaire Development**

With regard to the scale items/scales that were borrowed from existing relevant literature, the wording of specific items was modified to reflect the focus of the current study. All items concerning antecedents of COCBs, both social exchange-based antecedents and personality-based antecedents, which are derived from the social psychology and organizational literature (Penner, 2002; Bateman and Crant, 1993; Seibert, Crant, and Kraimer, 1999), were revised for the services context. Measurement items concerning satisfaction and behavioral intention were derived from the marketing

and consumer research literature (Chan et al., 2010; Maxham, 2003; Maxham and Netemeyer, 2003; Tang and Chiang, 2010; McKee et al., 2006). In addition, scale items that measure three constructs—COCB motivation, COCBs, and customer co-creation value were used by integrating the scale items that were obtained from the extant literature (Yi and Gong, 2013; Chan et al., 2010; Dong et al., 2008) and new items that were generated through the scale development process (qualitative research) in the current study. All item statements were measured using 7-point Likert scales (1=strongly disagree to 7=strongly agree; 1=very unlikely to 7=very likely).

In order to identify ambiguous instructions and item wording, the pretest was conducted with a convenience sample representing general customers in the service industry (N=6). All items in reference to all the constructs were confirmed for clarity and comprehensibility of the measure items. This pretest that was conducted with the convenience sample helped to establish a more rigorous survey instrument suitable for the context of the present research. Based on the survey instrument refined through the pretest, the final survey (see Appendix B) was conducted with customer panels.

### **Study Context, Sampling, and Data Collection**

The offline service context may allow customers to have more opportunities to experience a customized service and to experience more diverse incidents that customers may participate in as compared to other contexts, such as an the online context and/or product offering industry. Therefore, the offline service context was chosen for both the qualitative research and quantitative research of the current study. With an effort to enhance the generalizability of the study across a variety of service organizations, the



current research adapted Bowen's (1990) three-group taxonomy of services, which depends on the level of customer contact and the level of customization.

Considering the 17 constructs employed in the present study, the target sample for this study was a national customer sample of approximately 600 respondents (200 for each service group) who have had transactions in the offline service industry that include face-to-face interactions between the customers and frontline employees. Respondents were screened for age (18 years old or older) and the ability to read and write English because the questionnaire was in an English-based format. The survey was created using the online Zoomerang software ([www.zoomerang.com](http://www.zoomerang.com)), which has been utilized by academicians and practitioners to target a general customer sample (see Sen, Bhattacharya, and Korschun, 2006). The participant list was purchased from an established market research firm, which provides a reliable online customer panel. Koschat and Swayne (1996) and Markettools (2006) mention that panels of customers provide an ideal data source for marketing research because they closely represent the U.S. population in regard to various demographic factors, including gender, age, ethnicity, education, and income.

The survey instrument is an appropriate research approach to ascertain attitudes and/or behaviors of individuals in a population (Creswell, 2003). In addition, the survey design allows researchers to ask questions concerning the variables of interest (Westaby, 2006) and to provide respondents with identical questions in the same way (Trochim, 2006). Due to these advantages, studies in employees' OCBs and COCBs have used the survey design to gather usable data (Bettencourt et al., 2002; Lin et al., 2008; Sun, Aryee, and Law, 2007). The data collection was also conducted via a web-based self-

administered survey by considering several advantages of the online survey, including lower cost, convenience, and no interviewer bias (Schillewaert and Meulemeester, 2005), and the ability to gather data from a large number of geographically diverse respondents (Sue and Ritter, 2007)

Because the present study examined COCBs based on customers' previous offline interactions with the service organization to which they were randomly assigned, the samples for the current study were screened for those interactions. Thus, respondents, who had transacted with an offline service organization in face-to-face service interaction in the past six months, were qualified to participate in this study. Respondents were also required to be 18 years old or over. If respondents were willing to participate in the survey, they were first presented with the disclosure form, which includes an explanation in detail of their rights as a research subject and the purpose of the research. After respondents read and agreed to the disclosure form, they were directed to participate in the survey. After signing a consent form, respondents were directed to the screening questions for qualifying for the sample by indicating their age and previous interactions with a particular service organization. Unqualified respondents were not permitted to proceed to the survey, but were provided with an appreciation message: *"Thank you for your interest in this research project."* Questionnaires were distributed to the target customer panel members by the market research firm, with the questionnaires being randomly assigned to one of the three service groups—Service Group 1, 2, or 3.

Part 1 of the questionnaire begins with a statement that contains the explanation of the study context and examples of a service organization to help respondents to better understand the content of the questionnaire. Qualified respondents were asked to recall

the particular service organization and to provide the name of the service organization within the service type in the open-ended question format. The remaining parts of Part 1 also include general questions pertaining to frequency of visiting the service organization and length of the relationship with the service organization. The three versions of the questionnaire differ only in these questions in Part 1 that were related to the service group and otherwise included identical questions in the following sections.

Part 2 of the survey instrument contains item statements that measure the dependent variable of the present study, behavioral intentions, including the intention to continue the relationship with the service organization and intention to recommend the service organization to others. The general customer's perceptions and attitudes of the service organization, which are based on social exchange with the service organization, were measured in Part 3 and Part 4: CPOS, CPGOJ, and CAC. Part 5 also contains item statements of COCBs, which cover four sub-dimensions: *Helping*, *Advocacy*, *Tolerance*, and *Feedback*. Prior to presenting the questions of the fifth part, respondents were given the definition and explanation of COCBs in order to help respondents understand the concept of COCBs. Only then were they guided to answer questions pertaining to incidents or experiences they had actually performed as COCBs for the service organization.

After answering the questions on COCBs, the respondents were then directed to Part 6, which contains questions about COCB motivation. Guiding respondents to keep thinking about the actual COCBs they had performed for the service organization they had indicated in the previous section, respondents were asked to answer questions about reasons, motivations, and/or inspirations that led them to those COCBs. In addition, Part

7 and Part 8 include questions with regard to perceived co-creation value (i.e., economic, individual, and social co-creation values) and customer satisfaction (satisfaction with service employees, service outcome(s), and the service organization) as a result of the recent incident(s) in which they have voluntarily participated with their designated service organization. Part 9 includes the statements that measure individual's personality traits—conscientiousness, agreeableness, prosocial personality, and proactive personality. To avoid the direct reflection of personality traits on responses to COCB questions and other constructs, only after that information was gathered was personality measured in Part 9. Lastly, in Part 10 was general demographic information also obtained from eight general categories: gender, age, marriage status, ethnicity, annual household income, education, current occupation, and state of residence. To minimize common method variance, the scale items, except for demographic information, were randomly ordered in each part.

## **Operational Definitions and Measures**

### ***Social Exchange-Based Antecedents***

#### ***Customer Perception of Organizational Support (CPOS)***

CPOS is operationally defined as the *degree to which customers perceive support and care from the service organization* (adapted from Eisenberger et al., 1986; Keh and Teo, 2001). The current research employed the scale items to measure CPOS from the study of Bettencourt et al. (2001), which adapted employee's perceived organizational support (Eisenberger et al., 1986) into the customer context. After appropriately modifying items based on differences in the employee and customer context, Bettencourt et al. (2001) validates seven measure items for CPOS ( $\alpha=.89$ ). As representative

examples, the scale items include “The service provider really cares about my well-being” and “The service provider cares about my opinions” (see Table 11).

#### *Customer Perception of Global Organizational Justice (CPGOJ)*

The present study operationalizes CPGOJ as *a customer's global perception or judgment of how fair the service organization is based on both his or her personal experience and general evaluation from other customers* (adapted from Blodgett et al., 1993; Matos et al., 2009). Lind (2001) argues that individuals form global justice of an entity (e.g., organization, peers, or supervisor) based on their personal experience, whereas Colquitt and Shaw (2005) and Kray and Lind (2002) suggest that individuals can also perceive overall justice by using information regarding the fairness experience of others in forming their impression or evaluation of fairness. By incorporating these two approaches of global justice, Ambrose and Schminke (2009) develop six scale items to investigate the effect of overall justice perception on employee's OCBs ( $\alpha=.93$ ). Thus, six items were adapted from Ambrose and Schminke (2009) by revising the wording to adjust to the goal of the current study. A sample item is “In general, I can count on the service organization to be fair” (see Table 11).

#### *Customer Affective Commitment (CAC)*

CAC is operationalized as *the extent to which customers feel an emotional involvement in, and attachment to, the organization* (see Allen and Meyer, 1990). Scales to assess CAC were adopted from Meyer and Allen (1991), Huang and You (2011), and Vandenberghe and Bentein, (2009). Meyer and Allen (1991) suggest three conceptualizations of organizational commitment (i.e., affective, continuance, and normative commitment) and many studies have proved the validation and reliability of

the organizational commitment (Chen and Francesco, 2003; Huang and You, 2011). Thus, six affective commitment items are the most appropriate measures that can measure affective dimension of commitment (Myer and Allen, 1991; Huang and You, 2011; Vandenberghe and Bentein, 2009). Particularly, Huang and You (2011) recently confirm the positive influence of affective commitment on OCBs ( $\alpha=.82$ ). The current study focuses on affective commitment that customers perceive about the service organization. For the purpose of the study, thus, it was necessary that some words be modified (see Table 11).

**Table 11.** Measures for Social Exchange-Based Antecedents

Construct	Scale Item(s)	Source(s)
Customer Perception of Organizational Support (CPOS) (1=Strongly disagree; 7=Strongly agree)	1. The service organization values my contribution to its well-being. 2. The service organization really cares about my well-being. 3. The service organization cares about my opinions. 4. The service organization tries to provide the best service possible. 5. The service organization cares about my general satisfaction. 6. The service organization shows very little concern for me. <sup>R</sup> 7. The service organization takes pride in my accomplishment.	Bettencourt et al. (2001)
Customer Perception of Global Organizational Justice (CPGOJ) (1=Strongly disagree; 7=Strongly agree)	1. Overall, I'm treated fairly by the service organization. 2. In general, I can count on the service organization to be fair. 3. In general, the treatment I receive around the service organization is fair. 4. Usually, the way the service organization offers service is not fair. <sup>R</sup> 5. For the most part, the service organization treats its customers fairly. 6. Most of the people who visit the service organization would say they are often treated unfairly. <sup>R</sup>	Ambrose and Schminke (2009)
Customer Affective Commitment (CAC) (1=Strongly disagree; 7=Strongly agree)	1. I feel a strong sense of belonging to the service organization. 2. This service organization has a great deal of personal meaning for me. 3. I feel emotionally attached to the service organization. 4. I am proud to belong to this service organization. 5. I feel like part of the family at the service organization. 6. I really feel as if this service organization's problems are my own.	Meyer and Allen (1991); Huang and You (2011); Vandenberghe and Bentein (2009)

### ***Customer Personality-Based Antecedents***

The original version of the Big-Five personality instruments, which are developed by Goldberg and his colleagues (1999; 2001), constitutes 100 items, 20 items for each personality type (i.e., conscientiousness, agreeableness, emotional stability, openness to experience, and extraversion). With an extremely long survey instrument, answering similar questions repeatedly may make respondents bored and, therefore, it may cause common method biases such as saying ‘yes’ consistently. According to Robins, Hendin, and Trzesniewski, (2001), short versions of instruments were applied to large-scale surveys, longitudinal studies, pre-screening packets, and experience-sampling studies. Robins et al. (2001) also argue that short versions “eliminate item redundancy and, therefore, reduce the fatigue, frustration, and boredom associated with answering highly similar questions repeatedly” (p. 152). Thus, the present study utilized Goldberg’s IPIP Big-Five personality scales<sup>4</sup>, which contains 10 items for each personality type (Goldberg and his colleague).

#### ***Conscientiousness***

Conscientiousness includes *not only an individual’s will to achieve goals, self-motivation, and efficaciousness but also orderliness and cautiousness* (see Barrick and Mount, 1991; 1995; Borman et al., 2001). Ten items in Goldberg’s IPIP Big-Five personality scale were adapted to measure the degree of conscientiousness of respondents

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<sup>4</sup> Goldberg’s International Personality Item Pool (IPIP) Big-Five Personality scale was developed by Goldberg and his colleagues. Many personal and psychological researchers have confirmed strong reliability and validity of IPIP across various contexts and various sample categories (Gow, Whiteman, Patties, and Deary, 2005; Buchanan, Johnson, and Goldberg, 2005). Thus, Goldberg’s IPIP has been widely used in a number of research projects as a public domain personality inventory.



in the present study because the items show good internal consistency ( $\alpha=.79$ ). A sample item is “I am exacting in my work” (see Table 12).

### *Agreeableness*

Agreeableness is operationalized as *the degree to which an individual is easy to get along with and perceives pleasantness when engaged with others by reflecting interpersonal tendencies* (adapted from Tan et al., 2004; Hogan and Shelton, 1998).

Because Goldberg’s IPIP personality scale shows relatively high reliability ( $\alpha=.82$ ), many who research employees’ OCBs have adapted this 10-items agreeableness scale (Tan et al., 2004; Vey and Campbell, 2004). A sample item includes “I feel others’ emotions” (see Table 12).

### *Prosocial Personality*

Prosocial personality is defined as *the degree of an individual’s tendency to feel concern about and responsibility for others, and to engage in helping behaviors* (adapted from Penner et al., 1995; Borman and Motowidlo, 1997). Prosocial personality was measured with the Prosocial Personality Battery (PSB), composed of two dimensions: Other-oriented Empathy and Helpfulness (Penner et al., 1995; Penner, 2002). Arguing that Other-oriented Empathy and Helpfulness are theoretically and empirically distinct concepts, Penner et al. (1995) and Penner (2002) suggest the 30-item self-report measures. While Other-oriented Empathy refers to the prosocial thoughts and feelings of individuals, Helpfulness refers to a self-reported history of engaging in prosocial or helpful behaviors. More specifically, Other-oriented Empathy reflects the cognitive and affective components of individual’s prosocial personality by measuring *Moral reasoning*, *Social responsibility*, and *Empathy*, whereas Helpfulness measures behavioral

components by focusing on *Altruism* and *Personal Distress*. By applying PSB, Finkelstein et al. (2005) demonstrated that prosocial personality is a predictor of volunteer activities. Table 12 shows scale items that measure customer prosocial personality and its source.

#### *Proactive Personality*

Proactive personality is operationally defined as *the relatively stable tendency or predisposition to influence environmental change and to initiate behaviors* (Bateman and Crant, 1993). Proactive personality is measured with a 10-item scale from Siebert et al. (1999;  $\alpha=.86$ ), which was revised from the original 17-item scale by Bateman and Crant (1993). Proactive personality has been viewed as a distinct concept separate from other personality traits such as self-efficacy and locus of control (Parker, Williams, and Turner, 2006). Sample items are “If I see something I don’t like, I fix it” and “I am always looking for better ways to do things” (see Table 12).

**Table 12.** Measures for Customer Personality-Based Antecedents

Construct	Scale Item(s)	Source(s)
Conscientiousness <i>(1=Very inaccurate; 7=Very accurate)</i>	1. I am always prepared. 2. I pay attention to details. 3. I get chores done right away. 4. I like order. 5. I follow a schedule. 6. I am exacting in my work. 7. I leave my belonging around. <sup>R</sup> 8. I make a mess of things. <sup>R</sup> 9. I often forget to put things back in their proper place. <sup>R</sup> 10. I shirk my duties. <sup>R</sup>	Goldberg (2001)
Agreeableness <i>(1=Very inaccurate; 7=Very accurate)</i>	1. I am interested in people. 2. I sympathize with others' feeling. 3. I have a soft heart. 4. I take time out for others. 5. I feel others' emotions. 6. I make people feel at ease. 7. I am not really interested in others. <sup>R</sup> 8. I insult people. <sup>R</sup> 9. I am not interested in other people's problem. <sup>R</sup> 10. I feel little concern for others. <sup>R</sup>	Goldberg (2001)

*(table continues)*

Construct	Scale Item(s)	Source(s)
Prosocial Personality <i>(1=Strongly disagree;            7=Strongly agree or            1=Never; 7=Very Often)</i>	<p><b>Other-oriented Empathy</b></p> <p><u>Moral reasoning</u></p> <ol style="list-style-type: none"> <li>1. My decisions are usually based on my concern for other people.</li> <li>2. My decisions are usually based on what is the most fair and just way to act.</li> <li>3. I choose alternatives that are intended to meet everybody's needs.</li> <li>4. I choose a course of action that maximizes the help other people receive.</li> <li>5. I choose a course of action that considers the rights of all people involved.</li> <li>6. My decisions are usually based on concern for the welfare of others.</li> </ol> <p><u>Social responsibility</u></p> <ol style="list-style-type: none"> <li>7. When people are nasty to me, I feel very little responsibility to treat them well.<sup>R</sup></li> <li>8. I would feel less bothered about leaving litter in a dirty park than in a clean one.<sup>R</sup></li> <li>9. No matter what a person has done to us, there is no excuse for taking advantage of them.</li> <li>10. With the pressure for grades and the widespread cheating in school nowadays, the individual who cheats occasionally is not really as much at fault.<sup>R</sup></li> <li>11. It doesn't make much sense to be very concerned about how we act when we are sick and feeling miserable.<sup>R</sup></li> <li>12. If I broke a machine through mishandling, I would feel less guilty if it was already damaged before I used it.<sup>R</sup></li> <li>13. When you have a job to do, it is impossible to look out for everybody's best interest.<sup>R</sup></li> </ol> <p><u>Empathy</u></p> <ol style="list-style-type: none"> <li>14. I sometimes find it difficult to see things from the "other person's" point of view.<sup>R</sup></li> <li>15. When I see someone being taken advantage of, I feel kind of protective towards them.</li> <li>16. I sometimes try to understand my friends better by imagining how things look from their perspective.</li> <li>17. Other people's misfortunes do not usually disturb me a great deal.<sup>R</sup></li> <li>18. If I'm sure I'm right about something, I don't waste much time listening to other people's arguments.<sup>R</sup></li> <li>19. When I see someone being treated unfairly, I sometimes don't feel very much pity for them.<sup>R</sup></li> <li>20. I am often quite touched by things that I see happen.</li> <li>21. I believe that there are two sides to every question and try to look at them both.</li> <li>22. When I'm upset at someone, I usually try to "put myself in their shoes" for a while.</li> </ol>	Penner (2002)

(table continues)

Construct	Scale Item(s)	Source(s)
	<p><b>Helpfulness</b></p> <p><u>Altruism</u></p> <p>23. I have helped carry a stranger's belongings (e.g., books, parcels, etc.).</p> <p>24. I have allowed someone to go ahead of me in a line (e.g., supermarket, copying machine, etc.)</p> <p>25. I have let a neighbor whom I didn't know too well borrow an item of some value (e.g., tools, a dish, etc.).</p> <p>26. I have, before being asked, voluntarily looked after a neighbor's pets or children without being paid for it.</p> <p>27. I have offered to help a handicapped or elderly stranger across a street.</p> <p><u>Personal distress</u></p> <p>28. I am usually pretty effective in dealing with emergencies.<sup>R</sup></p> <p>29. I tend to lose control during emergencies.</p> <p>30. When I see someone who badly needs help in an emergency, I go to pieces</p>	
<p>Proactive Personality (1=Strongly disagree; 7=Strongly agree)</p>	<p>1. I am constantly on the lookout for new ways to improve my life.</p> <p>2. Wherever I have been, I have been a powerful force for constructive change.</p> <p>3. Nothing is more exciting than seeing my ideas turn into reality.</p> <p>4. If I see something I don't like, I fix it.</p> <p>5. No matter what the odds, if I believe in something I will make it happen.</p> <p>6. I love being a champion for my ideas, even against others' opposition.</p> <p>7. I excel at identifying opportunities.</p> <p>8. I am always looking for better ways to do things.</p> <p>9. If I believe in an idea, no obstacle will prevent me from making it happen.</p> <p>10. I am spot a good opportunity long before others can.</p>	<p>Bateman and Crant (1993); Siebert et al. (1999)</p>

### ***COCB Motivation***

In the current study, COCB motivation is defined as *a broad array of consumers' psychological drivers that induce them to perform voluntary behaviors for their service organizations, including social and personal factors* (developed by the author). Most items of participation motivation imply expectations or motives that lead to voluntary participation behaviors resulting in the desired outcomes, and the scale items have never been applied to the service context. Thus, there was recognition that it is necessary to develop new scale items that measure COCB motivation. Scale items that were created by the qualitative research of this study were used to measure COCB motivation, indicating four dimensions that represent COCB motivation (i.e., *Self-enhancement, Personal principles, Desire to support the service organization, and Perception of the service organization's past performance*). A sample item is "When I performed my COCBs, I was motivated by thoughts that everyone should be treated with respect and kindness." Table 13 includes the final set of scale items that measure COCB motivation, which were developed through the current study.

**Table 13.** Measures for COCB Motivation

Construct	Scale Item(s)	Source(s)
COCB Motivation <i>(1=Strongly disagree; 7=Strongly agree)</i>	<p>When I performed my voluntary behaviors, I was motivated by thoughts/desires/beliefs that ...</p> <p><u>Self-enhancement</u></p> <ol style="list-style-type: none"> <li>1. ... I would feel satisfied with my voluntary behaviors.</li> <li>2. ... I would feel a sense of accomplishment with my voluntary behaviors.</li> <li>3. ... I would experience personal growth.</li> </ol> <p><u>Personal principles</u></p> <ol style="list-style-type: none"> <li>1. ... helping others is the right thing to do.</li> <li>2. ... everyone should be treated with respect and kindness.</li> <li>3. ... it is worthwhile to help others out.</li> </ol> <p><u>Desire to support the service organization</u></p> <ol style="list-style-type: none"> <li>1. ... my voluntary behaviors would help the service provider grow and advance.</li> <li>2. ... my voluntary participation would make the service provider's task easier.</li> <li>3. ... my voluntary behaviors would provide the service provider with opportunities for improving the current service level.</li> </ol> <p><u>Perception of the service organization's past performance</u></p> <ol style="list-style-type: none"> <li>1. ... the service provider had treated me in the best possible way.</li> <li>2. ... the service provider had done a good job.</li> <li>3. ... the service provider was doing its best under the circumstances.</li> </ol>	Developed by researcher

### ***COCBs***

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. In incorporating and modifying these previous studies that have given attention and effort to developing scale items for COCBs, Yi and Gong (2013) suggest four dimensions of COCBs: feedback, advocacy, helping, and tolerance. Furthermore, because Yi and Gong's (2013) research is one of the most recent investigations that differentiate the measures and dimensions constituting customer participation behaviors and COCBs in the service context, the COCB measures developed by Yi and Gong (2013) may reflect voluntary or discretionary behaviors of customers more appropriately than those used in previous research.

Because there are no known replication and validation of measurement developed by Yi and Gong (2013), the present study confirmed their scale comprising four dimensions of COCBs. In addition, the qualitative revealed additional scale items. The study supports the findings of Yi and Gong (2013) as the most recent research pertaining to scale development that measure COCBs. The additional items that were obtained from the qualitative research were integrated into the existing items under Yi and Gong's established four dimensions. Thus, the final set of measures consists of five items for helping, three items for advocacy, four items for tolerance, and four items for feedback (see Table 14).



**Table 14.** Measures for COCBs

Construct	Scale Item(s)	Source(s)
COCBs <i>(1=Strongly disagree; 7=Strongly agree)</i>	<p><u>Helping</u></p> <ol style="list-style-type: none"> <li>1. I have assisted other customers when they needed my help.</li> <li>2. I have helped other customers when they seemed to have problems.</li> <li>3. I have taught other customers to use the service correctly.</li> <li>4. I have given advice to other customers.</li> <li>5. <i>I have helped the service organization with some of its operations. (NEW)</i></li> </ol> <p><u>Advocacy</u></p> <ol style="list-style-type: none"> <li>1. I have encouraged friends and relatives to use the service organization.</li> <li>2. I have recommended the service organization and the employee to others.</li> <li>3. I have said positive things about the service organization and the employee to others.</li> </ol> <p><u>Tolerance</u></p> <ol style="list-style-type: none"> <li>1. I have been patient and waited for the employee to recover from a mistake.</li> <li>2. I have put up with it when the service was not delivered as expected.</li> <li>3. I have adapted to the situation when I have waited longer than I expected to receive the service.</li> <li>4. <i>I have been kind and considerate even though a mistake was made. (NEW)</i></li> </ol> <p><u>Feedback</u></p> <ol style="list-style-type: none"> <li>1. When I have had feedback about the service, I filled out a customer survey form.</li> <li>2. When I had a useful idea on how to improve service, I let the service organization know.</li> <li>3. When I experienced a problem, I let the service organization know about it.</li> <li>4. <i>I have informed the service provider about great or poor service received from an individual employee. (NEW)</i></li> </ol>	Yi and Gong (2013) and Developed by authors

### ***Customer Co-Creation Value***

Similar to the measures of COCB motivation and actual COCBs, the current study initially intended to develop the measures of customer co-creation value by finding additional scale items for three dimensions of customer co-creation value. As mentioned in the prior section, however, the scale validity and dimensionality of the existing and newly-developed scale items were not successfully confirmed. Thus, all items from existing scales and those discovered through the qualitative research were retained for the quantitative research. The scale validation of customer co-creation value is re-tested with the data obtained through the quantitative research.

### ***Economic Co-Creation Value***

Economic co-creation value is defined as *customers' perceptions of service quality and customized services and financial, physical, and mental rewards that customers may obtain from their investment or sacrifice during and/or after engaging in COCBs* (Chan et al., 2010 and developed by the author). Recently, Chan et al. (2010) used five scale items to measure economic value through customer participation by adapting items from previous studies ( $\alpha = .90$ ; see Hartline and Ferrell, 1996; Zeithaml, 1988). However, the participants' responses in the qualitative research of the current study did not show two of the existing five items, "My voluntary participation allowed me to receive more control over the services quality" and "My voluntary participation allowed me to receive less service failure." Thus, the two items were excluded, assuming that they are not economic co-creation values derived from COCBs. Combining three existing items with the additional five items found by the qualitative research, eight items

were used to measure economic co-creation value. A sample item is “My voluntary participation allowed me save costs for service delivery.”

#### *Individual Co-Creation Value*

The current study defines individual co-creation value as *customers’ feeling a sense of goal achievement through accomplishment, pleasure, prestige, and personal growth during and/or after engaging in COCBs* (adapted from Woodruff, 1997; Meuter et al., 2005). Dong et al. (2008) measure customers’ perceptions of goal-achievement and enjoyment derived from customer participation by adapting intrinsic motives items of Meuter et al. (2005). The present study borrowed four of the five items (Dong et al., 2008), which were validated through the qualitative research stage, to measure individual co-creation value by modifying them for the context of this study. The item from Dong et al.’s (2008) study that was not found in qualitative study of the current study was “My voluntary participation allowed me to feel independence.” In addition, seven items from the qualitative research were included. A sample item is “My voluntary participation allowed me to have good feelings about myself.”

#### *Social Co-Creation Value*

Social co-creation value is *customers’ sense of enjoyable interaction with and social approval from the service organizations during and/or after engaging in COCBs, including the sense derived from developing the good relationship with the service organizations through COCBs*. The three scale items adapted from Chan et al. (2010), Hartline and Ferrell, (1996), and Zeithaml (1988) and newly created three items were used to measure social co-creation value. The measure item includes “My voluntary participation allowed me to build a better relationship with the service organization.”

Table 15 shows scale items that measure three dimensions (i.e., *Economic co-creation*, *Individual co-creation*, and *Social co-creation value*) of customer co-creation value.

**Table 15.** Measures for Customer Co-Creation Value

Construct	Scale Item(s)	Source(s)
Economic Co-Creation Value (1=Strongly disagree; 7=Strongly agree)	<p>My voluntary participating behaviors allowed me to ...</p> <ol style="list-style-type: none"> <li>1. ... receive higher quality services.</li> <li>2. ... receive more customized services.</li> <li>3. ... receive more professional services.</li> <li>4. ... <i>save time in service delivery.</i></li> <li>5. ... <i>save costs for service delivery.</i></li> <li>6. ... <i>receive greater efficiency in service delivery.</i></li> <li>7. ... <i>gain more value for my money.</i></li> <li>8. ... <i>receive rewards (e.g., discounts, coupons, and/or free offerings).</i></li> </ol>	Chan et al. (2010); Hartline and Ferrell, (1996); Zeithaml (1988); Developed by authors
Individual Co-Creation Value (1=Strongly disagree; 7=Strongly agree)	<p>My voluntary participating behaviors allowed me to ...</p> <ol style="list-style-type: none"> <li>1. ... have feelings of accomplishment.</li> <li>2. ... have feelings of enjoyment.</li> <li>3. ... feel innovative in how I interact with this service organization.</li> <li>4. ... have increased confidence in my skills.</li> <li>5. ... <i>have a sense of pride.</i></li> <li>6. ... <i>have feelings of satisfaction.</i></li> <li>7. ... <i>have good feelings about myself.</i></li> <li>8. ... <i>have a good experience working with others.</i></li> <li>9. ... <i>learn about the service provider's operation.</i></li> <li>10. ... <i>learn about the service provider's policies.</i></li> <li>11. ... <i>learn about how the service provider treats its customers.</i></li> </ol>	Dong et al. (2008) and Meuter, et al. (2005) ; Developed by authors
Social Co-Creation Value (1=Strongly disagree; 7=Strongly agree)	<p>My voluntary participating behaviors allowed me to ...</p> <ol style="list-style-type: none"> <li>1. ... build a better relationship with the service organization.</li> <li>2. ... make the service interaction more enjoyable.</li> <li>3. ... receive relational approval from the service organization.</li> <li>4. ... <i>have feelings of affiliation/involvement.</i></li> <li>5. ... <i>be a friend to the service employees.</i></li> <li>6. ... <i>be recognized by the service organization.</i></li> </ol>	Chan et al. (2010); Hartline and Ferrell, (1996); Zeithaml (1988); Developed by authors

### ***Customer Satisfaction***

In this study, customer satisfaction is operationalized as the extent to which customers subjectively judge a service outcome, frontline employee, and the overall service organization, which is related to participating in the service delivery process (adapted from Oliver, 1997). This study investigated satisfaction from various aspects of service consuming experiences by differentiating transaction-specific satisfaction from overall satisfaction, namely *satisfaction with the service outcome* that customers receive during and/or after participating in COCBs, *satisfaction with the frontline employee* who interacts with customers during and/or after participating in COCBs, and *overall satisfaction with the service organization*. Items to measure satisfaction with the service outcome and with the frontline employee were adapted from previous studies that have investigated the effect of perceived value on satisfaction (Lam, Shankar, Erramilli, and Murthy, 2004; Chan et al., 2010). By modifying the wording to match the context of the present study, two four-item scales to measure customer satisfaction with the service outcome and with the frontline employee were given with 7-point Likert scales ( $\alpha=.92$ ) (Chan et al., 2010). To measure overall satisfaction with the organization, the satisfaction scale developed by Maxham (2001) was used because the scale has been applied to examine the influence of satisfaction with a specific incident (e.g., service recovery satisfaction) on overall firm satisfaction. Overall satisfaction with the organization was measured with four items (see Table 16).

### ***Behavioral Intentions***

As ultimate dependent variables of the study, two dimensions of customer behavioral intentions were measured: *intention to continue the relationship* and *intention*

*to recommend to others*. Behavioral intentions are operationalized as intentions or willingness to perform actions such as continuing to consume the service from the service organization and recommending the service organization to other customers in the future. The behavioral intentions were measured by using scale items, adapted from prior research (Maxham, 2001, Maxham and Netemeyer, 2003; Tang and Chiang, 2010; McKee, Simmers, and Licata, 2006). Intention to continue the relationship with the service organization was measured with four items (e.g., “I have a strong intention to visit the service organization again”). Also, three items were used to measure intention to recommend to others (e.g., “I would recommend the service organization to my friends”) (see Table 16).

**Table 16.** Measures for Satisfaction and Behavioral Intentions

Construct	Scale Item(s)	Source(s)
Satisfaction with the Service Outcome (1=Strongly disagree; 7=Strongly agree)	<i>When I have performed voluntary participating behaviors for the service organization,</i> 1.I have felt satisfied with the service outcome I received from the service organization. 2.The service organization has done a good job at offering the service. 3.The service outcome of the service organization has met my expectations. 4.I have been satisfied with the overall service offering provided by the service organization.	Lam et al. (2004); Oliver and Swan (1989); Chan et al. (2010)
Satisfaction with the Frontline Employee (1=Strongly disagree; 7=Strongly agree)	<i>When I have performed voluntary participating behaviors for the service organization,</i> 1.I have been satisfied with the service frontline employee who provided me the service. 2.The service frontline employee who provided me the service has done a good job with the service. 3.The service frontline employee who provided me the service has met my expectations. 4.I have been satisfied with service frontline employees who worked at the service organization.	Lam et al. (2004); Oliver and Swan (1989); Chan et al. (2010)
Overall Satisfaction with the Service Organization (1=Strongly disagree; 7=Strongly agree)	<i>When I have performed voluntary participating behaviors for the service organization,</i> 1.I have been satisfied with my overall experiences with the service provider, i.e., the company providing the service. 2.In my opinion, the service provider, i.e., the company providing the service, gave satisfactory service. 3.As a whole, I have been satisfied with the service organization, i.e., the company providing the service. <i>About the service organization that I have indicated ...</i> 4. When you have performed voluntary participating behaviors for the service provider, how satisfied have you been with the service provider? (1 = Very dissatisfied; 7 = Very satisfied)	Maxham (2001); Maxham and Netemeyer (2003)
Intention to Continue the Relationship (1=1=Very unlikely; 7=Very likely)	1.I consider the service organization as my first choice compared to other service organizations. 2.I have a strong intention to visit the service organization again. 3.I intent to continue using the service organization in the future. 4.Overall, I will keep using the service organization as regularly as I do now.	Maxham and Netemeyer (2003); Tang and Chiang (2010)
Intention to Recommend to Other Customers (1=Very unlikely; 7=Very likely)	1.I would recommend the service organization to my friends. 2.If my friends were looking for services offered by the service organization, I would tell them to try the service organization. 3.I would spread positive word of mouth recommendations about the service provider.	McKee et al. (2006); Maxham (2001)



## **Data Analysis and Results**

### **Preliminary Data Analysis**

A total of 692 completed responses were collected through the online survey. After removing 27 with incomplete data, the data from 665 respondents were retained for the hypotheses testing, having 197 from Service Group 1; 213 from Service Group 2; and 255 from Service Group 3. The preliminary data analysis was first conducted to examine respondents' demographic characteristics among the three service groups and to test multicollinearity among the exogenous constructs (social exchange-based antecedents and personality-based antecedents). A chi-square comparison was performed to ascertain whether there were differences in demographic variables of respondents among the three service groups. The results showed that there were no differences in the demographic characteristics—gender, age, marital status, ethnicity, annual family household income, education level, and current occupation ( $p > .05$ ) (see Table 17).

### ***Characteristics of Respondents***

The result of the descriptive analysis showed that gender was nearly equally distributed in the sample, indicating 42.3% male and 57.7% female. In the entire sample, 64.3% of the respondents were 35 years or older, 43.6% were single, and 78.2% were Caucasian. In addition, 21.9% of the sample reported that they had annual family household income of more than \$70,000. More than 90% of the respondents had at least completed high school, including 23.0% with a bachelor's degree and 11.2% with a graduate degree. The demographic characteristics of respondents in the current study were similar to general demographic information on U.S. consumers in term of gender, age, marital status, ethnicity, annual income, education, and occupation (U.S. Census

Bureau, 2000). The details of respondents' demographic characteristics are summarized in Table 17.

**Table 17.** Respondents' Demographic Characteristics and Differences among Three Service Groups (N=665)

Characteristics	Percentage	$\chi^2_{(df)}$ , p value
<i>Gender</i>		
Male	42.3	2.36 <sub>(2)</sub> , p=.31
Female	57.7	
<i>Age</i>		
18-24	10.8	20.53 <sub>(16)</sub> , p=.20
25-29	12.8	
30-34	12.0	
35-39	10.8	
40-44	9.9	
45-49	11.0	
50-54	15.9	
55-59	9.5	
60 and over	7.2	
<i>Marital Status</i>		
Single	43.6	2.13 <sub>(6)</sub> , p=.91
Married	41.1	
Divorced	13.2	
Widowed	2.1	
<i>Ethnicity</i>		
Caucasian	78.2	12.11 <sub>(12)</sub> , p=.44
African-American	11.0	
Hispanic/Hispanic-American	3.5	
Asian/Asian-American	4.7	
Pacific Islander	0.2	
Native American	0.9	
Other	1.7	
<i>Annual Family Household Income</i>		
Less than \$10,000	12.9	6.33 <sub>(10)</sub> , p=.79
\$10,000 to \$29,999	24.1	
\$30,000 to \$49,999	25.7	
\$50,000 to \$69,999	15.3	
\$70,000 to \$89,999	9.3	
\$90,000 or more	12.6	

(table continues)

Characteristics	Percentage	$\chi^2_{(df)}$ , p value
<u>Education</u>		
Some high school	3.0	11.48 <sub>(14)</sub> , p=.65
High school graduate	20.2	
Some college credit	29.3	
Associate degree	11.7	
Bachelor's degree	23.0	
Master's degree	8.6	
Doctorate degree	2.6	
Other	1.7	
<u>Occupation</u>		
Laborer	5.0	15.07 <sub>(18)</sub> , p=.66
Machine operator/service worker	2.7	
Craftsman	1.5	
Clerical or sales worker	7.4	
Administrative personnel	5.9	
Manager	8.0	
Professional	17.0	
Student	10.7	
Retired	12.3	
Other	29.6	

In addition to the demographic characteristics of respondents, the questionnaire includes two questions regarding their patronage of the service organization: 1) how frequently respondents have patronized the service organization in the past six months and 2) for what time period they have patronized the service organization. The chi-square comparison test showed that the three service groups differed from each other in terms of the use frequency ( $p=.012$ ), but that there was no significant difference among the three service groups with regard to patronage period ( $p=.080$ ). However, the frequency that respondents had interacted with the service organization did not significantly influence COCBs, a main construct of the current study ( $p=.187$ ). Therefore, it was not necessary to include the use frequency as a control variable in the analysis.

Additionally, MANOVA tests were carried out to diagnose whether or not there were significant differences in COCB motivation and COCBs among the three service

groups. The results revealed that COCBs were not different among the three service groups ( $p=.972$ ). However, there was a significant difference among the service groups in COCB motivation ( $p=.046$ ). Thus, regression analysis was conducted to test whether service group type should be included as a control variable in the analysis. The results of the regression analysis revealed that the value and significance level of the path coefficient of each predictor did not change significantly when including the service group as a control variable. Thus, data from the three service groups were combined together for further analyses.

### ***Multicollinearity Testing among Exogenous Constructs***

Multicollinearity is a problematic and undesirable feature in models based on a multiple regression because it may complicate an evaluation of the indicator's validity (see Diamantopoulos and Winklhofer, 2001). In this study, the variance inflation factors (VIF) for relevant regression models did not exceed 10 (Kleinbaum, Kupper, and Muller, 1988; Hair, Anderson, Tatham, and Black, 1995). Thus, multicollinearity was not a problematic issue for the exogenous constructs of this study: CPOS, CPGOJ, customer conscientiousness, customer agreeableness, customer prosocial personality, and customer proactive personality.

### **Exploratory Factor Analysis**

Exploratory Factor Analysis (EFA) was performed to refine the measurement for each construct. EFA, with principal components analysis as the extraction method with varimax rotation as the rotation method, helps not only to confirm the sub-dimensions of the second-order constructs (prosocial personality, COCB motivation, and COCB(s)) but also to distinguish the three dimensions of customer co-creation value (economic,

individual, and social value). In this process, items that had low commonalities ( $\leq .30$ ), high cross-loadings ( $\geq .40$ ), and low factor loadings ( $\leq .50$ ) were deleted from further analyses (Hair et al., 2009). In addition, the number of factors extracted was based on an eigenvalue exceeding 1.

### ***EFA Results of COCB Motivation and COCBs***

Through previous research (see Yi and Gong, 2013) and the qualitative research in this study, COCB motivation and COCBs were conceptualized as second-order factor constructs. As expected, the results of the EFA showed a four-factor solution for both COCB motivation and the COCBs construct. More specifically, COCB motivation was a second-order factor construct that is comprised of four dimensions—*Self-enhancement*, *Personal principles*, *Desire to support the service organization*, and *Perception of the service organization's past performance*, explaining 84.45% of the total variance. In the process of the EFA with data from 665 respondents, one indicator in *Self-enhancement* (“I would feel satisfied with my voluntary behaviors”) was excluded due to low factor loading.

The results of the EFA also confirmed that COCB is the second-order factor construct as the previous researchers Yi and Gong (2013) had demonstrated, generating the four dimensions—*Helping*, *Advocacy*, *Tolerance*, and *Feedback*. Moreover, the results revealed that the new additional items that were developed through the qualitative study of this study were mingled with the existing items. However, one indicator in the Feedback dimension (“When I have had a useful idea on how to improve service, I let the service provider know”) was excluded due to low loading (see Table 18).

**Table 18.** EFA Results of COCB Motivation and COCBs

Scale Items	Factor Loading	Eigen Value	Variance %
<b><i>COCB Motivation</i></b>			
When I performed my voluntary behaviors, I was motivated by thoughts/desires/beliefs that ...			
<u><i>Self-enhancement</i></u> ( $\alpha=.802$ )		1.476	13.42
1. ... I would feel a sense of accomplishment with my voluntary behaviors.	.676		
2. ... I would experience personal growth.	.775		
<u><i>Personal principles</i></u> ( $\alpha=.911$ )		2.615	23.77
1. ... helping others is the right thing to do.	.853		
2. ... everyone should be treated with respect and kindness.	.843		
3. ... it is worthwhile to help others out.	.786		
<u><i>Desire to support the service organization</i></u> ( $\alpha=.920$ )		2.589	23.53
1. ... my voluntary behaviors would help the service provider grow and advance.	.780		
2. ... my voluntary participation would make the service provider's task easier.	.779		
3. ... my voluntary behaviors would provide the service provider with opportunities for improving the current service level.	.841		
<u><i>Perception of the service organization's past performance</i></u> ( $\alpha=.885$ )		2.610	23.73
1. ... the service provider had treated me in the best possible way.	.839		
2. ... the service provider had done a good job.	.849		
3. ... the service provider was doing its best under the circumstances.	.795		
<b><i>COCBs</i></b>			
<u><i>Helping</i></u> ( $\alpha=.902$ )		3.695	24.63
1. I have assisted other customers when they needed my help.			
2. I have helped other customers when they seemed to have problems.	.808		
3. I have taught other customers to use the service correctly.	.850		
4. I have given advice to other customers.	.825		
5. I have helped the service organization with some of its operations.	.816		
<u><i>Advocacy</i></u> ( $\alpha=.922$ )		2.814	18.76
1. I have encouraged friends and relatives to use the service organization.	.779		
2. I have recommended the service organization and the employee to others.	.895		
3. I have said positive things about the service organization and the employee to others.	.909		
	.849		

(table continues)

Scale Items	Factor Loading	Eigen Value	Variance %
<i>Tolerance</i> ( $\alpha=.791$ )		2.553	17.02
1. I have been patient and waited for the employee to recover from a mistake.	.776		
2. I have put up with it when the service was not delivered as expected.	.733		
3. I have adapted to the situation when I have waited longer than I expected to receive the service.	.740		
4. <i>I have been kind and considerate even though a mistake was made.</i>	.719		
<i>Feedback</i> ( $\alpha=.657$ )		1.718	11.45
1. When I have had feedback about the service, I filled out a customer survey form.	.721		
2. When I experienced a problem, I let the service organization know about it.	.555		
3. <i>I have informed the service provider about great or poor service received from an individual employee.</i>	.775		

Note: \* Italic font statements represent newly-found items through the stage of item purification.

### ***EFA Results of Social Exchange-Based Antecedents***

All indicators in the three constructs that represent social exchange relationship--customer perception of organizational support, customer perception of organizational justice, and customer affective commitment—were simultaneously entered into the EFA. This step helped us to identify differences among the three constructs and to ascertain how well items load on a specific construct (see Kelloway, 1995). Removing items that had low commonalities ( $\leq .30$ ), high cross-loadings ( $\geq .40$ ), and low factor loadings ( $\leq .50$ ), three items were retained for CPOS ( $\alpha=.933$ ), four items for CPGOJ ( $\alpha=.960$ ), and five items for CAC ( $\alpha=.901$ ).

**Table 19.** EFA Results of Social Exchange-Based Antecedents

Scale Items	Factor Loading	Eigen Value	Variance %
<b><i>Customer Perception of Organizational Support (CPOS)</i></b> ( $\alpha=.933$ )		1.782	14.85
1. The service provider values my contribution to its well-being.	.651		
2. The service provider really cares about my well-being.	.702		
3. The service provider cares about my opinions.	.601		
<b><i>Customer Perception of Global Organizational Justice (CPGOJ)</i></b> ( $\alpha=.960$ )		4.260	35.50
1. Overall, I am treated fairly by the service provider.			
2. In general, I can count on this service provider to be fair.	.881		
3. In general, the treatment I receive from the service provider is fair.	.859		
4. For the most part, the service provider treats its customers fairly.	.871		
	.895		
<b><i>Customer Affective Commitment (CAC)</i></b> ( $\alpha=.901$ )		4.049	33.74
1. I feel a strong sense of belonging to the service provider.	.839		
2. This service provider has a great deal of personal meaning for me.	.842		
3. I feel emotionally attached to the service provider.	.883		
4. I am proud to belong to this service provider.	.722		
5. I feel like part of the family at the service provider.	.836		

***EFA Results of Personality-Based Antecedents***

All indicators that measure *Customer conscientiousness* and *Customer agreeableness* were together entered into the factor analysis because they are two components among Big-Five personalities. The results of the EFA generated two factors by distinguishing *Customer conscientiousness* from *Customer agreeableness*. Four of the indicators measuring *Customer conscientiousness* were excluded due to low loadings, and three items that measure *Customer agreeableness* were retained by satisfying the criteria of EFA (commonalities:  $\geq .30$ ), cross-loadings:  $\leq .40$ ), and factor loadings:  $\geq .50$ ). In addition, as suggested by the literature, all indicators that measure *Customer proactive personality* loaded on a single factor, meeting the satisfactory level of the criterion.



As mentioned earlier, the original set of 30 items that measure *Customer prosocial personality* is composed of two dimensions: Other-oriented Empathy and Helpfulness. More specifically, Penner (2002) argues that *Customer prosocial personality* is a multi-dimensional construct, having three sub-dimensions under Other-oriented Empathy and two sub-dimensions under Helpfulness. A review of the eigenvalues, scree plot, and percentages of variance explained suggested the extraction of five factors—Moral reasoning, Social responsibility, and Empathy for the Other-oriented empathy dimension, and Altruism and Personal distress for the Helpfulness dimension. Due to high cross-loadings ( $\geq .40$ ) and low factor loadings ( $\leq .50$ ), the results of the EFA retained 16 items. Table 20 shows the results of the EFA of constructs that measure personality-based antecedents of this study.

**Table 20.** EFA Results of Personality-Based Antecedents

Scale Items	Factor Loading	Eigen Value	Variance %
<b><i>Conscientiousness</i></b> ( $\alpha=.758$ )		2.281	25.34
1. I like order.	.774		
2. I pay attention to details.	.757		
3. I am exacting in my work.	.821		
<b><i>Agreeableness</i></b> ( $\alpha=.890$ )		3.688	40.97
1. I am interested in people.	.760		
2. I sympathize with others' feelings.	.804		
3. I have a soft heart.	.756		
4. I take time out for others.	.744		
5. I feel others' emotion.	.840		
6. I make people feel at ease.	.677		
<b><i>Proactive Personality</i></b> ( $\alpha=.925$ )		5.996	59.96
1. I am constantly on the lookout for new ways to improve my life.	.761		
2. Wherever I have been, I have been a powerful force for constructive change.	.782		
3. Nothing is more exciting than seeing my ideas turn into reality.	.753		
4. If I see something I don't like, I fix it.	.734		
5. No matter what the odds, if I believe in something I will make it happen.	.833		

(table continues)

Scale Items	Factor Loading	Eigen Value	Variance %
6. I love being a champion for my ideas, even against others' opposition.	.729		
7. I excel at identifying opportunities.	.802		
8. I am always looking for better ways to do things.	.773		
9. If I believe in an idea, no obstacle will prevent me from making it happen.	.809		
10. I can spot a good opportunity long before others can.	.761		
<b><i>Prosocial Personality</i></b>			
<u><i>Other-Oriented Empathy</i></u>			
<i>Moral reasoning</i> ( $\alpha=.910$ )		4.187	26.17
1. My decisions are usually based on my concern for other people.	.819		
2. My decisions are usually based on what is the most fair and just way to act.	.746		
3. I choose alternatives that are intended to meet everybody's needs.	.809		
4. I choose a course of action that maximizes the help other people receive.	.745		
5. I choose a course of action that considers the rights of all people involved.	.796		
6. My decisions are usually based on concern for the welfare of others.	.824		
<i>Social responsibility</i> ( $\alpha=.762$ )		1.647	10.30
1. I would feel less bothered about leaving litter in a dirty park than in a clean one. <sup>R</sup>	.862		
2. With today's pressure for grades and the widespread cheating in schools, the individual who cheats occasionally is not really much at fault. <sup>R</sup>	.584		
3. It doesn't make much sense to be very concerned about how we act when we are sick and feeling miserable. <sup>R</sup>	.625		
<i>Empathy</i> ( $\alpha=.742$ )		1.966	12.29
1. I sometimes try to understand my friends better by imagining how things look from their perspective.	.774		
2. I believe that there are two sides to every question and try to look at them both.	.653		
3. When I'm upset at someone, I usually try to "put myself in their shoes" for a while.	.778		
<u><i>Helpfulness</i></u>			
<i>Altruism</i> ( $\alpha=.762$ )		1.633	10.20
1. I have helped carry a stranger's belongings (e.g., books, parcels, etc.).	.841		
2. I have offered to help a handicapped or elderly stranger across a street.	.858		

(table continues)

Scale Items	Factor Loading	Eigen Value	Variance %
<i>Personal distress</i> ( $\alpha=.754$ )		2.118	13.24
1. I tend to lose control during emergencies.	.845		
2. When I see someone who badly needs helps in an emergency, I go to pieces.	.857		

### ***EFA Results of Customer Co-Creation Value***

As addressed in the prior chapter, existing items that were found from the qualitative study component of the current study and the newly-developed items through the qualitative study of this research were entered into the EFA. The EFA results based on the review of the eigenvalues, scree plot, and percentages of variance explained suggested the extraction of three factors. In terms of economic customer co-creation value, five items were deleted from the item pool due to cross-loadings higher than 0.4, retaining three items. The three retained items were developed through this study, and reflected financial or monetary aspects rather than service quality or service per se that customers received. Five indicators that measure individual customer co-creation value were retained through the EFA, deleting four items. The five items included two items from previous studies (“My voluntary participating behaviors allowed me to have feelings of accomplishment.” and “My voluntary participating behaviors allowed me to have feelings of enjoyment.”) and three items developed by the qualitative study of this research. Additionally, the results of the EFA showed that there were three items to measure social customer co-creation value, deleting three indicators that had cross-loadings higher than 0.4. Table 21 displays the three dimensions that were extracted by the EFA and items that measure each dimension.

**Table 21.** EFA Results of Customer Co-Creation Value

Scale Items	Factor Loading	Eigen Value	Variance %
<b><i>Economic Co-Creation Value</i></b> ( $\alpha=.860$ )		2.551	23.19
My voluntary participating behaviors allowed me to ...			
1. ... save costs for service delivery.	.844		
2. ... gain more value for my money..	.757		
3. ... receive rewards (e.g., discounts, coupons, and/or free offerings).	.860		
<b><i>Individual Co-Creation Value</i></b> ( $\alpha=.936$ )		3.979	36.17
My voluntary participating behaviors allowed me to ...			
1. ... have feelings of accomplishment.	.831		
2. ... have feelings of enjoyment.	.776		
3. ... have a sense of pride.	.830		
4. ... have feelings of satisfaction.	.820		
5. ... have good feelings about myself.	.837		
<b><i>Social Co-Creation Value</i></b> ( $\alpha=.866$ )		2.229	20.26
My voluntary participating behaviors allowed me to ...			
1. ... build a better relationship with the service provider.	.745		
2. ... make the service interaction more enjoyable.	.693		
3. ... be a friend to the service employees.	.738		

### ***EFA Results of Customer Satisfaction and Behavioral Intentions***

As consequences of COCBs, the present study hypothesized customer satisfaction and behavioral intentions. Because this study intended to investigate satisfaction from various aspects of service including satisfaction with specific aspects of service transactions—from the service outcome and contact with frontline employee(s) and overall satisfaction with the service organization—it was necessary to confirm measurement refinement of each satisfaction and to distinguish three facets of satisfactions through the EFA. The eigenvalues, scree plot, and percentages of variance explained generated three factors, indicating satisfactions with three aspects: *Satisfaction with service employee*, *Satisfaction with service outcome*, and *Satisfaction with service organization*. One indicator in the *Satisfaction with service organization* dimension was deleted due to a low factor loading (“When you have performed voluntary participating

behaviors for the service provider i.e., the service company, how satisfied have you been with the service provider?”). In addition, indicators that measure two types of behavioral intentions performed as expected, being loaded into two factors. One item from the item pool to measure *Intention to continue the relationship* was removed due to a high cross-loading (“I consider the service provider as my first choice compared to other service providers”). Thus, three items for each behavioral intention (i.e., *Intention to continue the relationship* and *Intention to recommend others*) were retained for subsequent analysis (see Table 22).

**Table 22.** EFA Results of Customer Satisfaction and Behavioral Intentions

Scale Items	Factor Loading	Eigen Value	Variance %
<b><i>Satisfaction with Service Employee</i></b> ( $\alpha=.972$ )		3.877	35.24
When I have performed voluntary participating behaviors for the service provider,	.763		
1. I have been satisfied with the service employees who provided me the service.	.775		
2. The service employees who provided me the service have done a good job with the service.	.778		
3. The service employees who provided me the service have met my expectations.	.791		
4. I have been satisfied with service employees who worked at the service provider.			
<b><i>Satisfaction with Service Outcome</i></b> ( $\alpha=.969$ )		3.268	29.71
When I have performed voluntary participating behaviors for the service provider,	.674		
1. I have felt satisfied with the service outcome I received from the service provider.	.712		
2. The service provider has done a good job at offering the service.	.724		
3. The service outcome of the service provider has met my expectations.	.713		
4. I have been satisfied with the overall service offering provided by the service provider.			

(table continues)

Scale Items	Factor Loading	Eigen Value	Variance %
<b><i>Satisfaction with Service Provider</i></b> ( $\alpha=.967$ )		3.024	27.492
When I have performed voluntary participating behaviors for the service provider,	.728		
1. I have been satisfied with my overall experiences with the service provider, i.e., the company providing the service.	.751		
2. In my opinion, the service provider, i.e., the company providing the service, gave satisfactory service.	.720		
3. As a whole, I have been satisfied with the service provider, i.e., the company providing the service.			
<b><i>Intention to Continue the Relationship</i></b> ( $\alpha=.952$ )		2.758	45.971
1. I have a strong intention to visit the service provider again.	.820		
2. I intend to continue using the service provider in the near future.	.808		
3. Overall, I will keep using the service provider as regularly as I do now.	.826		
<b><i>Intention to Recommend to Others</i></b> ( $\alpha=.971$ )		2.814	46.899
1. I would recommend the service provider to my friends.	.838		
2. If my friends were looking for services offered by the service provider and were eligible for its services, I would tell them to try the service provider.	.833		
3. I would spread positive word of mouth recommendations about the service provider.	.828		

## Measurement Model

### *Overall Model Fit*

To confirm the dimensionality of each construct and to assess internal consistency, construct validity, and discriminant validity of the measures, a confirmatory factor analysis (CFA) was conducted using AMOS 18.0 software. If any item did not have an acceptable level of standardized loading, standard errors, t-value, construct reliability, and AVE, the item was excluded from further analysis (Fornell and Larcker, 1981; Bagozzi and Yi, 1988). The measurement model results for the overall model fit were as follows:  $\chi^2_{(3653)}=6524.764$ ;  $p<.000$ ; CFI=.952; TLI=.946; IFI=.952; RMSEA=.034, indicating good model fit (Bollen, 1989). Table 23 shows the results of

the CFA including the standardized loadings, standard errors, and t values of each indicator.

### ***Convergent and Discriminant Validity***

Convergent validity was verified by assessing reliability, factor loadings, and AVE of each construct. In this process, items that did not have acceptable item loading ( $\geq .70$ ) and worsened construct validity and the AVE of each construct were deleted. These items include: one item in *Conscientiousness*, five items in *Proactive personality*, one item in *Social responsibility*, one item in *Empathy*, one item in *Tolerance*, and one item in *Feedback*. Excluding those ten items, construct reliability ( $\geq .70$ ) of each latent construct was at an acceptable level, and all items significantly loaded on their relevant constructs (Anderson and Gerbing, 1988). Table 23 shows the final set of items pooled for further analysis. Additionally, the AVE of each construct exceeded 50% as recommended by Fornell and Larcker (1981). Thus, the convergent validity of each construct was confirmed.

To examine discriminant validity, the AVE of each construct was first compared to the squared intercorrelation coefficients (SIC) (see Table 24). The results of comparison showed that AVE of most constructs was greater than the SIC between factors except with seven sets of constructs: CPGOJ and CPOS; Self-enhancement and Desire to support; Social responsibility and Personal distress; Moral reasoning and Empathy; Individual value and Self-enhancement; Individual value and Social value; Social value and Satisfaction with employee. Thus, discriminant validity among constructs, except the seven sets of constructs, was determined. To verify discriminant validity of the seven sets that showed unsatisfactory levels of discriminant validity through the comparison

between AVE and SIC, as an additional test for discriminant validity, a pairwise chi-square difference test was performed for each pair of constructs in the measurement model (Bagozzi, Phillips, and Yi, 1991). In each case, the chi-square of the constrained models, compared with that of the unconstrained model, was significantly increased, ranging the chi-square difference ( $\Delta\chi^2$ ) from 11.595 to 73.514 ( $\Delta df=1$ ,  $p<.001$ ). Thus, discriminant validity was achieved for all constructs.



**Table 23.** CFA Results: Measurement Model Testing

	<b>Std. Loading</b>	<b>Std. Error</b>	<b>t-value</b>	<b>Construct Reliability</b>	<b>AVE</b>
<b><i>Customer Perception of Organizational Support (CPOS)</i></b>				.901	75.2%
1. The service provider values my contribution to its well-being.	.873	--	--		
2. The service provider really cares about my well-being.	.853	.034	29.729		
3. The service provider cares about my opinions.	.876	.033	31.331		
<b><i>Customer Perception of Global Organizational Justice (CPGOJ)</i></b>				.960	85.6%
1. Overall, I am treated fairly by the service provider.	.931	--	--		
2. In general, I can count on this service provider to be fair.	.931	.022	45.190		
3. In general, the treatment I receive from the service provider is fair.	.917	.023	42.940		
4. For the most part, the service provider treats its customers fairly.	.921	.023	43.517		
<b><i>Customer Affective Commitment (CAC)</i></b>				.933	73.7%
1. I feel a strong sense of belonging to the service provider.	.898	--	--		
2. This service provider has a great deal of personal meaning for me.	.863	.029	32.106		
3. I feel emotionally attached to the service provider.	.832	.031	29.696		
4. I am proud to belong to this service provider.	.838	.029	30.188		
5. I feel like part of the family at the service provider.	.859	.031	31.785		
<b><i>Customer Conscientiousness</i></b>				.723	56.8%
1. I pay attention to details.	.817	.073	15.272		
2. I am exacting in my work.	.684	--	--		
<b><i>Customer Agreeableness</i></b>				.892	57.8%
1. I am interested in people.	.720	.056	18.453		
2. I sympathize with others' feelings.	.792	.051	20.444		
3. I have a soft heart.	.733	.055	18.821		
4. I take time out for others.	.792	.048	20.446		
5. I feel others' emotion.	.778	.054	20.062		
6. I make people feel at ease.	.745	--	--		

(table continues)

	Std. Loading	Std. Error	t-value	Construct Reliability	AVE
<b><i>Customer Proactive Personality</i></b>				.894	62.9%
1. Wherever I have been, I have been a powerful force for constructive change.	.798	.051	21.234		
2. No matter what the odds, if I believe in something I will make it happen.	.825	.048	22.055		
3. I excel at identifying opportunities.	.795	.049	21.158		
4. If I believe in an idea, no obstacle will prevent me from making it happen.	.780	.049	20.684		
5. I can spot a good opportunity long before others can.	.766	--	--		
<b><i>Customer Prosocial Personality</i></b>					
<b><i>Other-Oriented Empathy</i></b>					
<i>Moral reasoning</i>				.911	63.1%
1. My decisions are usually based on my concern for other people.	.818	--	--		
2. My decisions are usually based on what is the most fair and just way to act.	.770	.039	22.516		
3. I choose alternatives that are intended to meet everybody's needs.	.793	.039	23.451		
4. I choose a course of action that maximizes the help other people receive.	.731	.043	20.942		
5. I choose a course of action that considers the rights of all people involved.	.829	.038	25.002		
6. My decisions are usually based on concern for the welfare of others.	.822	.039	24.672		
<i>Social responsibility</i>				.734	58.1%
1. With today's pressure for grades and the widespread cheating in schools, the individual who cheats occasionally is not really much at fault. <sup>R</sup>	.811	--	--		
2. It doesn't make much sense to be very concerned about how we act when we are sick and feeling miserable. <sup>R</sup>	.710	.048	17.480		
<i>Empathy</i>				.683	51.9%
1. I sometimes try to understand my friends better by imagining how things look from their perspective.	.732	.064	16.003		
2. I believe that there are two sides to every question and try to look at them both.	.708	--	--		

(table continues)

	Std. Loading	Std. Error	t-value	Construct Reliability	AVE
<i><u>Helpfulness</u></i>					
<i>Altruism</i>				.765	62.0%
1. I have helped carry a stranger's belongings (e.g., books, parcels, etc.).	.821	.063	16.002		
2. I have offered to help a handicapped or elderly stranger across a street.	.752	--	--		
<i>Personal distress</i>				.755	60.6%
1. I tend to lose control during emergencies. <sup>R</sup>	.799	--	--		
2. When I see someone who badly needs helps in an emergency, I go to pieces. <sup>R</sup>	.759	.056	17.848		
<b>COCB Motivation</b>					
<i><u>Self-enhancement</u></i>				.802	66.9%
1. ... to feel a sense of accomplishment with my voluntary behaviors.	.826	--	--		
2. ... to experience personal growth.	.810	.040	24.776		
<i><u>Personal principles</u></i>				.912	77.6%
1. ... helping others is the right thing to do.	.887	--	--		
2. ... everyone should be treated with respect and kindness.	.853	.031	30.188		
3. ... it is worthwhile to help others out.	.902	.029	33.703		
<i><u>Desire to support the service organization</u></i>				.885	71.9%
1. ... my voluntary behaviors would help the service provider grow and advance.	.852	--	--		
2. ... my voluntary participation would make the service provider's task easier.	.846	.036	27.248		
3. ... my voluntary behaviors would provide the service provider with opportunities for improving the current service level.	.846	.037	27.225		
<i><u>Perception of the service organization's past performance</u></i>				.921	79.5%
1. ... the service provider had treated me in the best possible way.	.910	--	--		
2. ... the service provider had done a good job.	.898	.026	36.771		
3. ... the service provider was doing its best under the circumstances.	.866	.028	33.572		

(table continues)

	Std. Loading	Std. Error	t-value	Construct Reliability	AVE
<b>COCBs</b>					
<i>Helping</i>				.904	65.4%
1. I have assisted other customers when they needed my help.	.830	.054	20.826		
2. I have helped other customers when they seemed to have problems.	.853	.053	21.405		
3. I have taught other customers to use the service correctly.	.804	.054	20.166		
4. I have given advice to other customers.	.827	.055	20.753		
5. <i>I have helped the service organization with some of its operations.</i>	.724	--	--		
<i>Advocacy</i>				.925	80.3%
1. I have encouraged friends and relatives to use the service organization.	.865	.028	32.397		
2. I have recommended the service organization and the employee to others.	.923	.027	37.613		
3. I have said positive things about the service organization and the employee to others.	.900	--	--		
<i>Tolerance</i>				.799	57.1%
1. I have been patient and waited for the employee to recover from a mistake.	.778	.053	18.930		
2. I have adapted to the situation when I have waited longer than I expected to receive the service.	.682	.053	16.795		
3. <i>I have been kind and considerate even though a mistake was made.</i>	.801	--	--		
<i>Feedback</i>				.652	48.3%
1. When I have had feedback about the service, I filled out a customer survey form.	.676	.073	13.485		
2. <i>I have informed the service provider about great or poor service received from an individual employee.</i>	.714	--	--		
<i>Economic Co-Creation Value</i>				.860	67.3%
1. ... save costs for service delivery.	.803	--	--		
2. ... gain more value for my money.	.759	.046	24.034		
3. ... receive rewards (e.g., discounts, coupons, and/or free offerings).	.797	.048	22.091		

(table continues)

	Std. Loading	Std. Error	t-value	Construct Reliability	AVE
<b><i>Individual Co-Creation Value</i></b>				.936	74.6%
1. ... have feelings of accomplishment.	.854	--	--		
2. ... have feelings of enjoyment.	.863	.033	29.313		
3. ... have a sense of pride.	.870	.034	29.766		
4. ... have feelings of satisfaction.	.883	.033	30.608		
5. ... have good feelings about myself.	.848	.034	28.459		
<b><i>Social Co-Creation Value</i></b>				.867	68.5%
1. ... build a better relationship with the service provider.	.845	--	--		
2. ... make the service interaction more enjoyable.	.828	.036	26.425		
3. ... be a friend to the service employees.	.809	.036	25.470		
<b><i>Satisfaction with Service Employee</i></b>				.972	89.5%
1. I have been satisfied with the service employees who provided me the service.	.960	--	--		
2. The service employees who provided me the service have done a good job with the service.	.949	.017	56.986		
3. The service employees who provided me the service have met my expectations.	.933	.018	52.116		
4. I have been satisfied with service employees who worked at the service provider.	.943	.018	55.147		
<b><i>Satisfaction with Service Outcome</i></b>				.970	88.9%
1. I have felt satisfied with the service outcome I received from the service provider.	.944	--	--		
2. The service provider has done a good job at offering the service.	.936	.020	49.366		
3. The service outcome of the service provider has met my expectations.	.935	.021	48.967		
4. I have been satisfied with the overall service offering provided by the service provider.	.956	.019	54.136		
<b><i>Satisfaction with Service Organization</i></b>				.967	90.8%
1. I have been satisfied with my overall experiences with the service provider, i.e., the company providing the service.	.951	--	--		
2. In my opinion, the service provider, i.e., the company providing the service, gave satisfactory service.	.935	.020	50.616		
3. As a whole, I have been satisfied with the service provider, i.e., the company providing the service.	.972	.016	61.717		

(table continues)

	Std. Loading	Std. Error	t-value	Construct Reliability	AVE
<b><i>Intention to Continue the Relationship</i></b>				.971	91.7%
1. I have a strong intention to visit the service provider again.	.969	--	--		
2. I intend to continue using the service provider in the near future.	.951	.016	60.706		
3. Overall, I will keep using the service provider as regularly as I do now.	.953	.016	61.552		
<b><i>Intention to Recommend to Others</i></b>				.952	87.0%
1. I would recommend the service provider to my friends.	.904	.022	42.791		
2. If my friends were looking for services offered by the service provider and were eligible for its services, I would tell them to try the service provider.	.947	.020	51.093		
3. I would spread positive word of mouth recommendations about the service provider.	.946	--	--		
<b>Model Fit:</b> $\chi^2_{(3653)}=6524.764$ ; CFI=.952; TLI=.946; IFI=.952; RMSEA=.034					

**Table 24.** Discriminant Validity Testing: AVE compared SIC

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27
1. CPGOJ	<b>.86</b>	.79	.35	.12	.15	.07	.14	.02	.22	.07	.02	.19	.31	.22	.67	.01	.62	.16	.03	.09	.23	.33	.57	.59	.60	.65	.58
2. CPOS		<b>.75</b>	.58	.07	.11	.11	.10	.00	.14	.08	.00	.24	.18	.31	.30	.07	.57	.12	.07	.20	.26	.41	.49	.55	.51	.58	.43
3. CAC			<b>.74</b>	.05	.08	.11	.07	.06	.07	.06	.04	.24	.08	.29	.36	.19	.39	.09	.12	.25	.24	.38	.25	.29	.26	.32	.26
4. Conscientiousness				<b>.57</b>	.47	.36	.26	.07	.33	.21	.07	.12	.22	.10	.13	.02	.11	.13	.07	.03	.11	.11	.19	.14	.14	.09	.09
5. Agreeableness					<b>.58</b>	.30	.53	.06	.50	.35	.03	.22	.32	.16	.19	.03	.16	.14	.08	.07	.23	.20	.21	.19	.16	.11	.10
6. Proactive						<b>.63</b>	.28	.00	.26	.26	.00	.29	.18	.28	.12	.11	.12	.09	.19	.15	.25	.25	.12	.11	.10	.07	.04
7. Moral Reasoning							<b>.63</b>	.05	.58	.30	.01	.30	.41	.24	.23	.05	.14	.18	.09	.07	.25	.20	.22	.20	.19	.10	.09
8. Social Respons.								<b>.58</b>	.06	.01	.74	.00	.14	.01	.02	.14	.01	.00	.06	.15	.00	.01	.02	.01	.02	.01	.02
9. Empathy									<b>.52</b>	.30	.05	.28	.45	.24	.24	.03	.24	.24	.12	.03	.30	.24	.23	.23	.22	.17	.12
10. Altruism										<b>.62</b>	.01	.19	.20	.14	.13	.13	.16	.11	.21	.08	.16	.13	.10	.10	.08	.06	.05
11. P. Distress											<b>.61</b>	.01	.08	.01	.01	.13	.01	.00	.03	.12	.00	.01	.01	.01	.01	.00	.01
12. Self-enhancement												<b>.67</b>	.52	.82	.41	.31	.29	.30	.29	.33	.77	.60	.24	.24	.21	.13	.10
13. P. Principles													<b>.78</b>	.36	.50	.04	.29	.30	.08	.05	.42	.32	.31	.29	.27	.20	.20
14. Desire to support														<b>.72</b>	.46	.28	.29	.27	.27	.34	.54	.64	.23	.25	.20	.16	.11
15. Perception															<b>.80</b>	.06	.62	.20	.07	.19	.37	.54	.65	.67	.63	.49	.40
16. Helping																<b>.65</b>	.12	.16	.40	.20	.21	.20	.04	.04	.03	.04	.02
17. Advocacy																	<b>.80</b>	.29	.20	.16	.32	.39	.46	.47	.47	.55	.42
18. Tolerance																		<b>.57</b>	.29	.06	.22	.22	.14	.12	.11	.13	.04
19. Feedback																			<b>.48</b>	.21	.20	.23	.05	.04	.03	.05	.04
20. Economic Value																				<b>.67</b>	.35	.61	.14	.16	.11	.08	.07
21. Individual Value																					<b>.75</b>	.70	.28	.30	.27	.19	.14
22. Social Value																						<b>.69</b>	.70	.45	.38	.24	.20
23. SAT Employee																							<b>.90</b>	.85	.82	.43	.40
24. SAT Outcome																								<b>.89</b>	.89	.45	.40
25. SAT Provider																									<b>.91</b>	.46	.41
26. Recommend Others																										<b>.92</b>	.84
27. Continue Relation																											<b>.87</b>

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

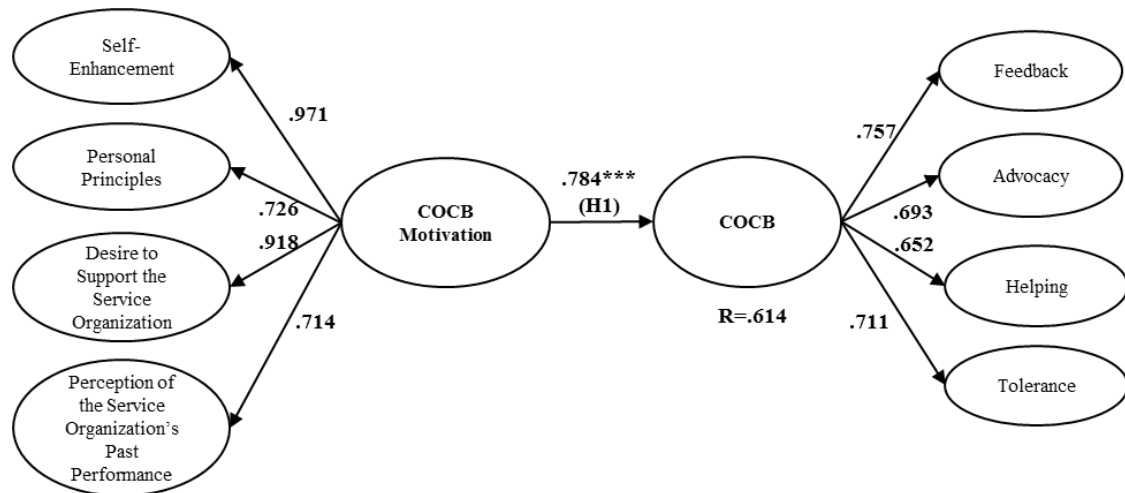
### Structural Model: Hypotheses Testing

The present study constitutes three parts that encompass the proposed research model: 1) social exchange-based antecedents of COCBs, 2) personality-based antecedents of COCBs, and 3) consequences of COCB that include customer co-creation value, customer satisfaction, and behavioral intentions. Thus, in order to test the hypotheses, the proposed research model was analyzed by dividing it into the three parts. A latent regression model and path analysis was run in AMOS 18.0. After analyzing each part, the comprehensive proposed model, which includes both antecedents and consequences of COCBs, was also tested.

#### *Testing of Hypothesis 1*

H1 predicted that COCB motivation is positively related to COCBs, theorizing COCB motivation as an important antecedent of COCBs. The analysis to test H1 allowed for the establishment of the nomological validity of the COCB motivation scale developed by the present study. As demonstrated by researchers (see Groth, 2005; Yi and Gong, 2013), COCBs are a second-order factor construct that has four sub-dimensions (i.e., *Helping*, *Advocacy*, *Tolerance*, and *Feedback*). In addition, because the four sub-dimensions of COCB motivation was confirmed through EFA and CFA—*Self-enhancement*, *Personal principles*, *Desire to support the service organization*, and *Perception of the service organization's past performance*—COCB motivation was also analyzed as a second-order construct. The results showed satisfactory model fit indices for the structural model ( $\chi^2_{(242)}=907.001$ ;  $p<.000$ ; CFI=.943; TLI=.931; IFI=.944 RMSEA=.064). As expected, COCB motivation had a strong impact on COCBs ( $\beta=.784$ ,  $p<.001$ ), supporting H1 (see Figure 5).



**Figure 5.** Impact of COCB Motivation on COCBs

**Model fit:**  $\chi^2_{(242)}=907.001$ ;  $p<.000$ ; CFI=.943; TLI=.931; IFI=.944; RMSEA=.064

Note: \*\*\*:  $p<.001$ , \*\*:  $p<.01$ , \*:  $p<.05$

#### ***Testing of Hypotheses 2 to 4: Social Exchange-Based Antecedents***

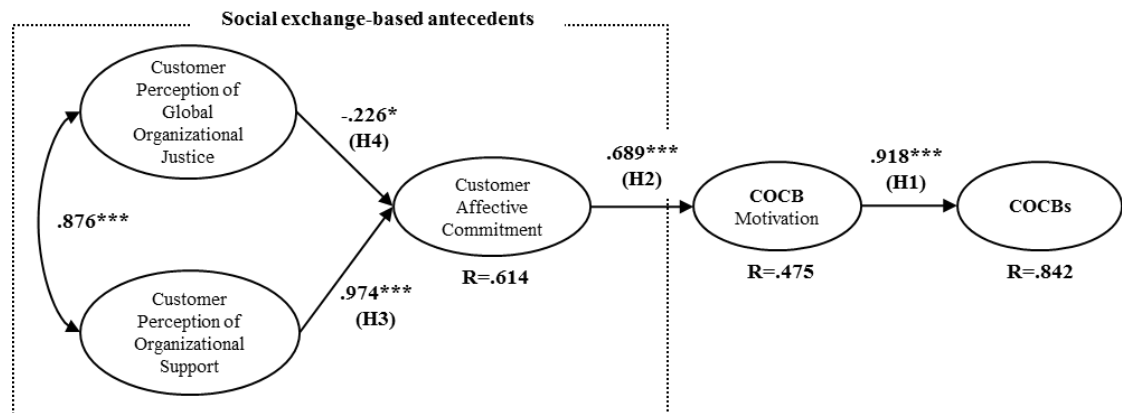
Based on the proposed research model, the fit indices for the part of the social exchange-based antecedents of COCBs are as follows:  $\chi^2_{(573)}=2323.896$ ;  $p<.000$ ; CFI=.918; TLI=.909; IFI=.918; RMSEA=.068, showing acceptable range and good model fit. Figure 6 shows the results of the structural model that depicts the social exchange-based antecedents of COCBs.

As the nomological validity test showed above, the model of the social exchange-based antecedents also confirmed that COCB motivation was positively related to COCBs (H1). H2 predicted that CAC to the service organization positively influences COCB motivation. The results of SEM revealed that CAC had a strong positive impact on COCB motivation ( $\beta=.689$ ,  $p<.001$ ), supporting H2. In addition, H3 and H4 predicted that CPOS and CPGOJ positively influence CAC, respectively. The results indicated that CPOS had a significant positive impact on CAC ( $\beta=.974$ ,  $p<.001$ ), supporting H3.

However, CPGOJ did not have significant positive impact on CAC, rather showing a

negative impact on CAC at the 0.5 significance level ( $\beta = -.226$ ,  $p < .05$ ). Thus, H4 was not supported in spite of strong theoretical and empirical evidence from previous studies.

**Figure 6.** Theoretical Model of Social Exchange-Based Antecedents



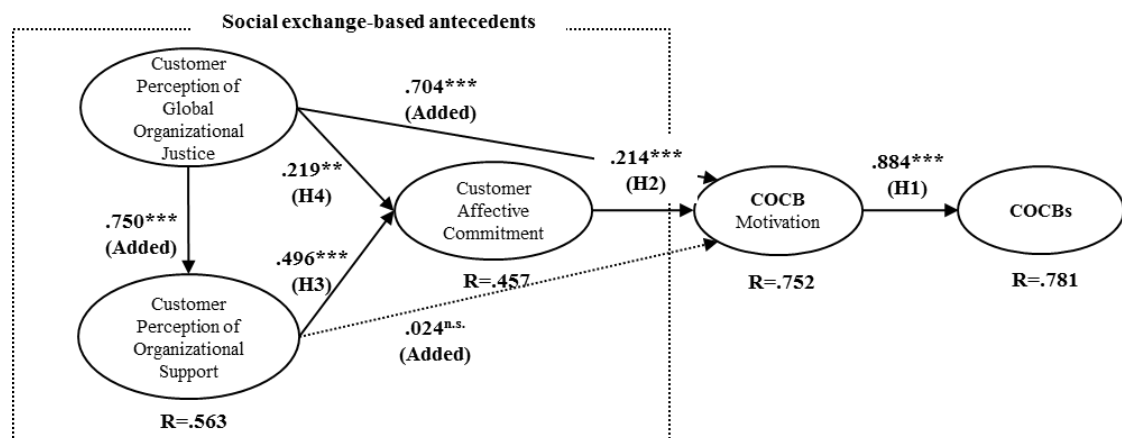
**Model fit:**  $\chi^2_{(573)} = 2323.896$ ;  $p < .000$ ; CFI=.918; TLI=.909; IFI=.918; RMSEA=.068

Note: \*\*\*:  $p < .001$ , \*\*:  $p < .01$ , \*:  $p < .05$

Interestingly, modification indices suggested adding two paths: from CPGOJ to COCB motivation and from CPOS to COCB motivation. These paths have also been implied by previous studies (Bettencourt, 1997; Williams, Pitre, Zainuba, 2002; Nadiri and Tanova, 2010). According to Williams et al. (2002), employee perceptions of just treatment lead employees to engage in organizational citizenship behaviors. Bettencourt (1997) shows that perceived support for customers positively influences cooperation and participation of customers with the service firm. Additionally, even though the proposed model did not hypothesize the relationship between CPGOJ and CPOS, the modification indices indicated a relationship between these two constructs. Some previous studies have argued that CPGOJ may be a predictor of CPOS. More specifically, researchers have empirically demonstrated that procedural and distributive justice positively influences individuals' perceptions of organizational support (Shore and Shore, 1995; Masterson,

Lewis, Goldman, and Taylor, 2000; DeConinck, 2010). Thus, the current research suggests an alternative model that includes three paths—from CPGOJ to COCB motivation, from CPOS to COCB motivation, and from CPGOJ to CPOS. The fit indices for the alternative model (i.e., the model incorporating the suggested relationships per modification indices) were as follows:  $\chi^2_{(572)}=2155.789$ ;  $p<.000$ ; CFI=.925; TLI=.918; IFI=.926; RMSEA=.065. The results of a chi-square comparison between the two models showed a significantly improved model fit for the alternative model ( $\Delta\chi^2=168.107$ ,  $\Delta df=1$ ,  $p<.001$ ). The results revealed that CPGOJ is positively related to COCB motivation ( $\beta=.704$ ,  $p<.001$ ), but that the impact of the CPOS on COCB motivation is not significant ( $\beta=.024$ , n.s.). In addition, the results showed that CPGOJ is positively related to CPOS, supporting the relevant studies ( $\beta=.750$ ,  $p<.001$ ). The alternative model also suggests the significant positive impact of CPGOJ on CAC as the prior research has confirmed and the present study hypothesized ( $\beta=.219$ ,  $p<.001$ ). Thus, H4 was supported with the alternative model. The results of the structural model are provided in Figure 7 and Table 25.

**Figure 7.** Alternative Theoretical Model of Social Exchange-Based Antecedents

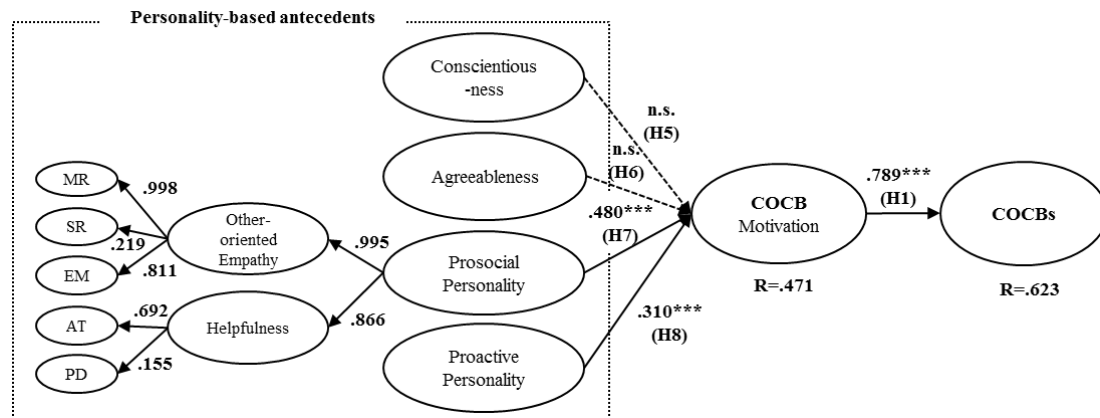


**Model fit:**  $\chi^2_{(572)}=2155.789$ ;  $p<.000$ ; CFI=.925; TLI=.918; IFI=.926; RMSEA=.065  
 Note: \*\*\*:  $p<.001$ , \*\*:  $p<.01$ , \*:  $p<.05$

***Testing of Hypotheses 5 to 8: Customer Personality-Based Antecedents***

Hypotheses 5 to 8 predicted that customers' personality traits, including conscientiousness (H5), agreeableness (H6), prosocial personality (H7), and proactive personality (H8), have a positive impact on COCB motivation. Especially because prosocial personality has been conceptualized as a multidimensional construct that has several sub-dimensions (see Penner et al., 1995; Penner, 2002), it was analyzed as a third-order factor construct—three factors under the Other-oriented empathy dimension (moral reasoning, social responsibility, and empathy) and two factors under the Helpfulness dimension (altruism and personal distress).

The results for the structural model fit were:  $\chi^2_{(1196)}=3013.564$ ;  $p<.000$ ; CFI=.920; TLI=.914; IFI=.920; RMSEA=.048 (see Figure 8). Contradicting the hypotheses, the paths from conscientiousness to COCB motivation (H5) and from agreeableness to COCB motivation (H6) were not statistically significant. Thus, H5 and H6 were not supported. As expected, however, the results indicated that prosocial personality (H7) and proactive personality (H8) showed a significant positive relationship with COCB motivation ( $\beta=.480$ ,  $p<.001$ ;  $\beta=.310$ ,  $p<.001$ , respectively). The results of the structural model that tested both the social exchange-based antecedent model and personality-based antecedent model are reported in Table 25.

**Figure 8.** Theoretical Model of Personality-Based Antecedents**Table 25.** Hypotheses Testing: Antecedents of COCBs

Path	Std. Path Coefficient	Std. Error	T-value	Hypothesis Tested
<b>H1:</b> COCB Motivation → COCBs	.784***	.078	11.058	Supported
<b><i>Social Exchange-based Antecedents</i></b>				
<b>H2:</b> CAC → COCB Motivation	.214***	.018	5.932	Supported
<b>H3:</b> CPOS → CAC	.496***	.051	9.903	Supported
<b>H4:</b> CPGOJ → CAC	.219**	.055	4.640	Supported
<b>Added:</b> CPOS → COCB Motivation	.024	.018	.698	Not Supported
<b>Added:</b> CPGOJ → COCB Motivation	.704***	.032	12.761	Supported
<b>Added:</b> CPGOJ → CPOS	.750***	.033	25.910	Supported
<b><i>Personality-based Antecedents</i></b>				
<b>H5:</b> Conscientiousness → COCB Motivation	-.063	.085	-.950	Not Supported
<b>H6:</b> Agreeableness → COCB Motivation	.032	.085	.345	Not Supported
<b>H7:</b> Prosocial Personality → COCB Motivation	.480***	.112	6.887	Supported
<b>H8:</b> Proactive Personality → COCB Motivation	.310***	.067	5.798	Supported

Note: \*\*\*:  $p < .001$ , \*\*:  $p < .01$ , \*:  $p < .05$

### ***Testing of Hypotheses 9 to 18: Consequences of COCBs***

The structural model was run to test the proposed hypotheses pertaining to consequences of COCBs: customer co-creation value, customer satisfaction, and behavioral intention. The results of the theoretical structural model were as follows:  $\chi^2_{(761)}=2448.031$ ;  $p<.000$ ; CFI=.944; TLI=.940; IFI=.945; RMSEA=.058 as shown in Figure 9. Hypotheses 9 to 11 predicted that COCBs have a positive relationship with three types of customer co-creation value: economic co-creation value (H9), individual co-creation value (H10), and social co-creation value (H11). All paths proposing a positive relationship from COCBs to the three types of customer co-creation value were statistically significant, indicating that COCBs have strong positive impact on economic co-creation value ( $\beta=.742$ ,  $p<.001$ ), individual co-creation value ( $\beta=.830$ ,  $p<.001$ ), and social co-creation value ( $\beta=.791$ ,  $p<.001$ ). As a result, H9 to 11 were supported.

H12a-12c and H14a-14c assessed the positive impact of the three types of customer co-creation value on customer satisfaction with service outcome (H12a-12c) and customer satisfaction with frontline employees (H14a-14c). The results indicated that individual (H12b) ( $\beta=.338$ ,  $p<.001$ ) and social customer co-creation value (H12c) ( $\beta=.368$ ,  $p<.001$ ) positively influence customer satisfaction with service outcome, whereas economic customer co-creation value does not influence customer satisfaction with service outcome (H12a). Thus, H12b and H12c were supported, but H12a was not supported. Likewise, the paths for the relationship between individual customer co-creation value and customer satisfaction with frontline employees (H14b) ( $\beta=.344$ ,  $p<.001$ ) and for the relationship between social customer co-creation and customer

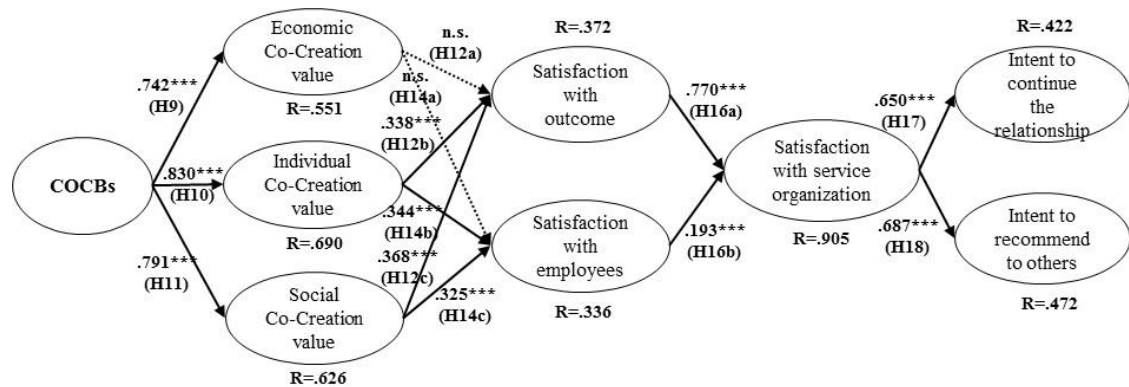
satisfaction with frontline employees (H14c) ( $\beta=.325$ ,  $p<.001$ ) were statistically significant. However, the path linking economic co-creation value and customer satisfaction with frontline employees was not significant (H14a). As a result, H14b and H14c were supported, but H14a was not supported.

The present study hypothesized the comparisons among the influence of three types of customer co-creation value on customer satisfaction with service outcome (H13) and customer satisfaction with frontline employees (H15). More specifically, H13 proposed that economic co-creation value has a stronger impact on customer satisfaction with the service outcome compared to (a) individual co-creation value and (b) social co-creation value. However, due to an insignificant relationship between economic co-creation value and customer satisfaction with service outcome, it was impossible to test H13. For the same reason, H15 could not be tested.

Considering the spillover effect of satisfaction with particular attributes of a service organization (satisfaction with service outcome and satisfaction with frontline employees) on overall satisfaction with service organization, this study hypothesized the positive impact of customer satisfaction with service outcome (H16a) and frontline employees (H16b) on customer satisfaction with the service organization. The results revealed that customer satisfaction with service outcome is positively related to customer satisfaction with the service organization ( $\beta=.770$ ,  $p<.001$ ), supporting H16a. Additionally, as proposed, customer satisfaction with frontline employees had a significant positive influence on customer satisfaction with the service organization ( $\beta=.193$ ,  $p<.001$ ). Thus, H16b was also supported.

Lastly, the current study tested whether customer satisfaction with a service organization positively influences customers' behavioral intentions—intention to continue the relationship (H17) and intention to recommend to others (H18). The results showed that customer satisfaction with a service organization through the value co-creation process had a significant positive impact on intention to continue the relationship ( $\beta=.650$ ,  $p<.001$ ) and intention to recommend to others ( $\beta=.687$ ,  $p<.001$ ), supporting H17 and H18. Figure 9 and Table 26 provide the results of the structural model that depicts the consequences of COCBs.

**Figure 9.** Theoretical Model of COCB's Consequences



**Model fit:**  $\chi^2_{(761)}=2448.031$ ;  $p<.000$ ; CFI=.944; TLI=.940; IFI=.945; RMSEA=.058

Note: \*\*\*:  $p<.001$ , \*\*:  $p<.01$ , \*:  $p<.05$

**Table 26.** Hypotheses Testing: Consequences of COCBs

Path	Std. Path Coefficient	Std. Error	T-value	Hypothesis Tested
<b>H9:</b> COCBs → Economic Co-Creation Value	.742***	.132	10.603	Supported
<b>H10:</b> COCBs → Individual Co-Creation Value	.830***	.128	11.506	Supported
<b>H11:</b> COCBs → Social Co-Creation Value	.791***	.144	11.847	Supported
<b>H12a:</b> Economic Co-Creation Value → SAT with Outcomes	-.051	.049	-1.072	Not Supported
<b>H12b:</b> Individual Co-Creation Value → SAT with Outcomes	.338***	.055	6.774	Supported

(table continues)



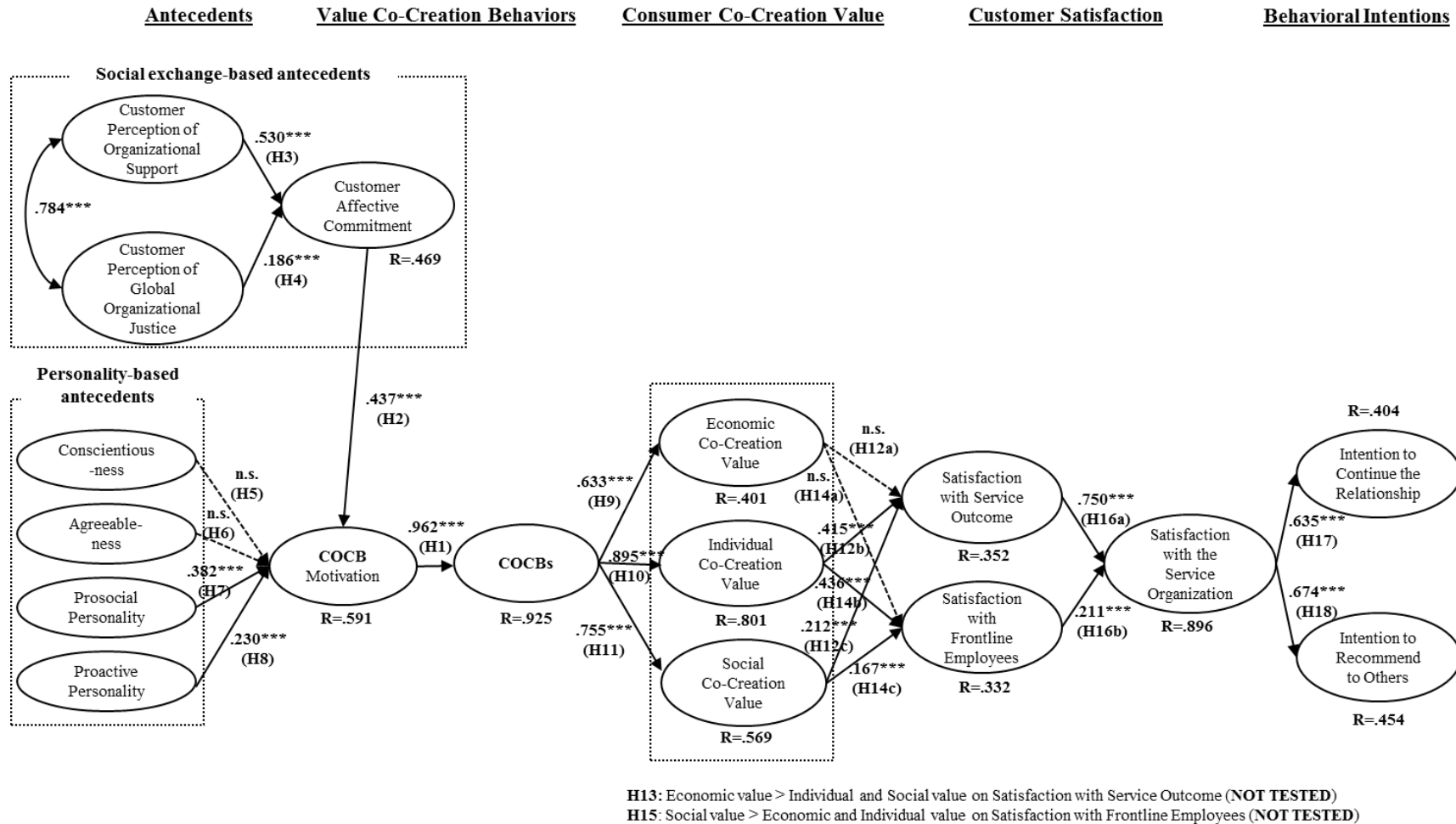
Path	Std. Path Coefficient	Std. Error	T-value	Hypothesis Tested
<b>H12c:</b> Social Co-Creation Value → SAT with Outcomes	.368***	.041	8.118	Supported
<b>H13:</b> Economic Co-Creation value > Individual and Social Value on SAT with Outcomes	--	--	--	Not tested
<b>H14a:</b> Economic Co-Creation Value → SAT with Employees	-.046	.049	-.930	Not Supported
<b>H14b:</b> Individual Co-Creation Value → SAT with Employees	.344***	.054	6.700	Supported
<b>H14c:</b> Social Co-Creation Value → SAT with Employees	.325***	.040	6.972	Supported
<b>H15:</b> Social Co-Creation value > Economic and Individual Value on SAT with Employees	--	--	--	Not tested
<b>H16a:</b> SAT with Outcomes → SAT with SP	.770***	.047	16.593	Supported
<b>H16b:</b> SAT with Employees → SAT with SP	.193***	.048	4.262	Supported
<b>H17:</b> SAT with SP → Continue the Relationship	.650***	.036	19.385	Supported
<b>H18:</b> SAT with SP → Recommend Others	.687***	.036	22.441	Supported

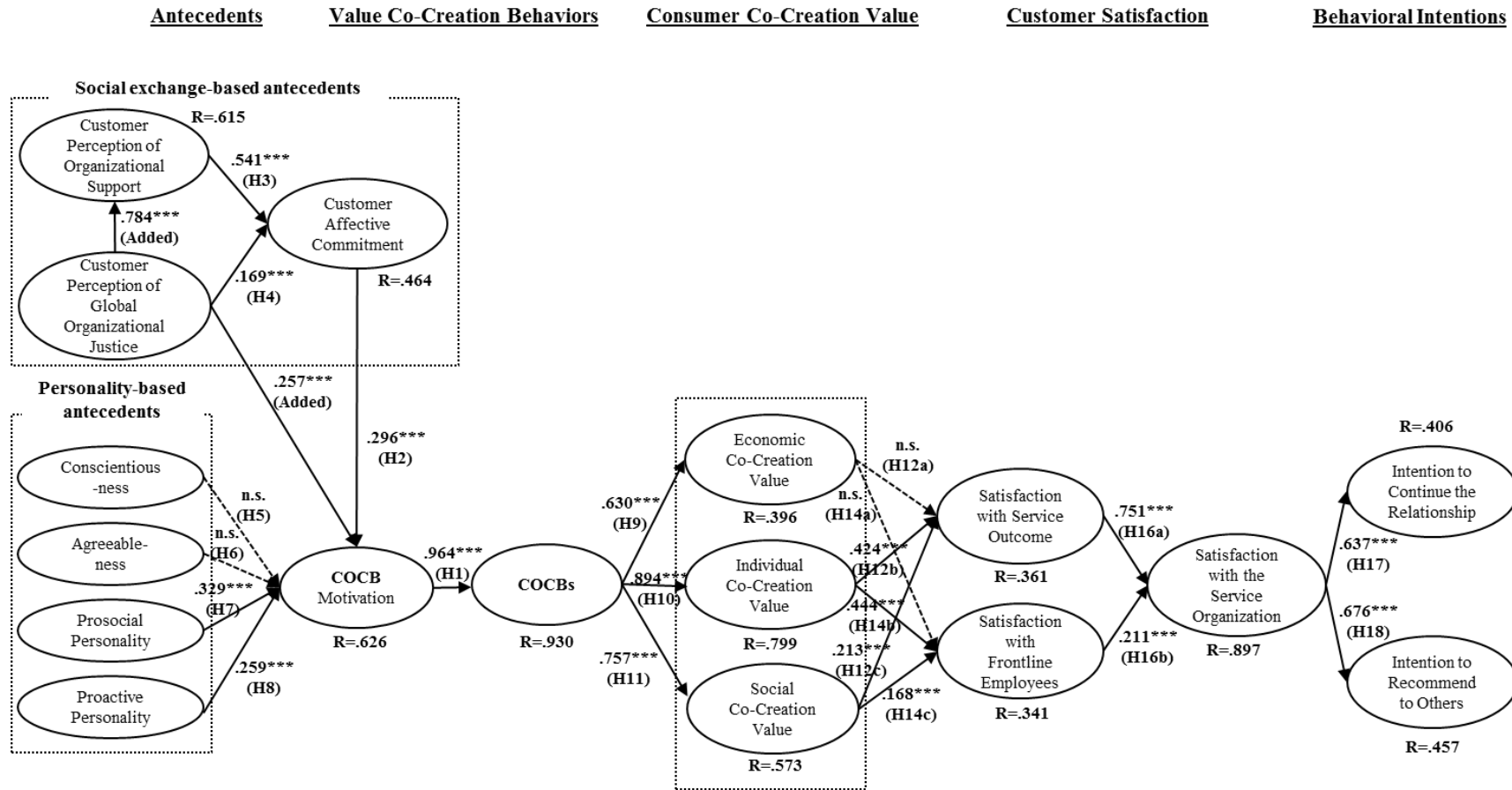
Note: \*\*\*: p<.001, \*\*: p<.01, \*: p<.05; SAT=Satisfaction; SP=Service Provider

### ***Testing of the Comprehensive Theoretical Model***

One of the important contributions of this study is to empirically investigate both antecedents and consequences of COCBs simultaneously. In order to provide better support for the association between antecedents and consequences of COCBs, the comprehensive theoretical model was tested, integrating antecedents and consequences of COCBs into the model. The fit indices for the comprehensive theoretical model, which was initially proposed, were as follows:  $\chi^2_{(3949)}=9664.611$ ;  $p<.000$ ; CFI=.904; TLI=.900; IFI=.904; RMSEA=.047. All paths except from conscientiousness to COCB motivation (H5), from agreeableness to COCB motivation (H6), from economic co-creation value to satisfaction with service outcome (H12a), and from economic co-creation value to satisfaction with frontline employees (H14a) were statistically significant (see Figure 10).

Considering modification indices suggested for the model of social exchange-based antecedents, the alternative comprehensive theoretical model was tested. Adding two paths, from CPGOJ to CPOS and from CPGOJ to COCB motivation, the model fit indices were as follows:  $\chi^2_{(3948)}=9623.465$ ;  $p<.000$ ; CFI=.904; TLI=.901; IFI=.905; RMSEA=.047. The result of a chi-square comparison between the two models showed a significantly better model fit of the alternative model ( $\Delta\chi^2=41.146$ ,  $\Delta df=1$ ,  $p<.001$ ). The results of the structural model of the revised comprehensive theoretical model showed exactly the same results as the results of the three parts of the theoretical model—social exchange-based antecedents, personality-based antecedents, and consequences of COCBs. As a result, except for H5, H6, H12a, and H14a, all hypotheses were supported. Figure 11 represents the results of the structural model based on the alternative comprehensive theoretical model.

**Figure 10.** Comprehensive Theoretical Model to Explore Antecedents and Consequences of COCBs

**Figure 11.** Alternative Comprehensive Theoretical Model to Explore Antecedents and Consequences of COCBs

H13: Economic value > Individual and Social value on Satisfaction with Service Outcome (NOT TESTED)  
H15: Social value > Economic and Individual value on Satisfaction with Frontline Employees (NOT TESTED)

**Model Fit:**  $\chi^2_{(3948)}=9623.465$ ; CFI=.904; TLI=.901; IFI=.905; RMSEA=.047

*Note:* Dash lines indicate non-significant (n.s.) paths.

### **Post-Hoc Analysis: Group Comparisons**

As a method to maximize generalizability of the study, the current study collected the data based on the three types of service organization, defined with regard to the level of customer contact and the level of customization (Service Group 1, Service Group 2, and Service Group 3). To confirm if there are differences in the relationships between proposed constructs across the different types of service organizations, the current study conducted non-hypothesized, post-hoc multi-group analyses for each of three models (social exchange-based antecedent model, personality-based antecedent model, and COCB's consequences model) and the comprehensive model.

#### ***Model of Social Exchange-Based Antecedents***

*Testing of Measurement Model:* For the social exchange-based antecedent model, the similarity of the model across the three service types was tested through multi-group measurement invariance models: configural invariance, full metrics invariance, and intercept invariance models (Steenkamp and Baumgartner, 1998). The configural invariance model was supported, as satisfactory levels of fit for CFI, TLI, IFI, and RMSEA were achieved ( $\chi^2_{(1701)}=3568.154$ ;  $p<.000$ ; CFI=.914; TLI=.905; IFI=.915; RMSEA=.041) (Hu and Bentler, 1995). This configural invariance model was compared to the full metrics invariance model constraining the factor loadings to be equal across groups, and the fit difference between the two models was not significant ( $\Delta\chi^2=49.480$ ,  $\Delta df=50$ ,  $p>.001$ ). Moreover, the model fit of the full metrics invariance model was not worse than that of the configural invariance model ( $\Delta CFI=.000$ ,  $\Delta TLI=.003$ ,  $\Delta IFI=.000$ ,  $\Delta RMSEA=-.001$ ). As the third step, the intercept invariance model, constraining intercepts of all observed items to be equal, was compared to the full metrics invariance

model. The fit difference between the two models was somewhat significant ( $\Delta\chi^2=143.039$ ,  $\Delta df=72$ ,  $p<.001$ ), but the model fit of the intercept invariance model was not worse than those of the full metrics invariance model ( $\Delta CFI=-.003$ ,  $\Delta TLI=.000$ ,  $\Delta IFI=.003$ ,  $\Delta RMSEA=.000$ ), showing that the difference of CFI was less than .01 (Cheung and Rensvold, 2002) and RMSEA was overlapped in 90% confidence intervals (Cadiz, Sawyer, and Griffith, 2009; Wang and Russell, 2005). Because configural, full metric, and intercept invariance exist, the similarity of the social exchange-based antecedent model across three service types was confirmed.

*Testing of Structural Model:* To test path comparisons in the social exchange-based antecedent model, all paths among the three groups were estimated without constraints as with the baseline model. The model was then compared with a structural invariance model that constrained all paths to be equal among groups. Comparison between the two models revealed that all paths were the same across the three service groups ( $\Delta\chi^2=18.753$ ,  $\Delta df=12$ ,  $p>.001$ ). Table 27 shows the results of the structural model for each of the three service groups. The coefficients of all the paths in the three service groups were significant, as the hypotheses for all groups proposed by the social exchange-based antecedents model were supported (see Figure 7 and Table 25). Thus, the multi-group analysis for the social exchange-based antecedent model supported that CPGOJ and CPOS are antecedents that influence CAC in all service groups. CAC is also positively related to COCB motivation, and in turn, positively influences COCBs. Moreover, paths that were added through the suggestions of modification indices and the literature, from CPGOJ to CPOS and from CPGOJ to COCB motivation, were significant for all service groups, not showing differences among the three groups.

**Table 27.** Result of Multi-Group Path Comparison: Social Exchange-Based Antecedents Model

	$\chi^2$	df	$\Delta\chi^2$	p-value
Unconstrained baseline model	3559.476	1757		
<u>Constrained paths</u>				
CPGOJ → CPOS	3560.251	1759	0.775	.679
CPGOJ → CAC	3561.070	1759	1.594	.451
CPOS → CAC	3560.051	1759	0.575	.750
CAC → COCB Motivation	3562.785	1759	3.309	.191
CPGOJ → COCB Motivation	3559.707	1759	0.231	.891
COCB Motivation → COCBs	3564.015	1759	4.539	.103
All paths constrained	3578.229	1769	18.753	.095

Path	Service Group 1		Service Group 2		Service Group 3	
	Std. Estimates	p-value	Std. Estimates	p-value	Std. Estimates	p-value
CPGOJ → CPOS	.783	.000	.722	.000	.744	.000
CPGOJ → CAC	.381	.000	.341	.000	.239	.002
CPOS → CAC	.361	.000	.429	.000	.398	.000
CAC → COCB Motivation	.137	.016	.263	.000	.199	.000
CPGOJ → COCB Motivation	.717	.000	.658	.000	.675	.000
COCB Motivation → COCBs	.834	.002	.850	.000	.917	.000
<b>Model Fit Indices</b>	$\chi^2_{(1769)}=3578.229$ , CFI=.917, TLI=.911, IFI=.918, RMSEA=.039					

### ***Model of Customer Personality-Based Antecedents***

#### ***Testing of Measurement Model:***

To test measurement invariance for the social exchange-based antecedent model, multi-group measurement invariance models including the configural invariance, full metrics invariance, and intercept invariance models were also assessed (Steenkamp and Baumgartner 1998). CFI, TLI, and RMSEA of the configural invariance model were close to satisfactory levels ( $\chi^2_{(3555)}=6285.835$ ;  $p<.000$ ; CFI=.886; TLI=.878 IFI=.887; RMSEA=.034). When this configural invariance model was compared to the full metrics invariance model, the fit difference between the

two models was not significant ( $\Delta\chi^2=77.170$ ,  $\Delta df=68$ ,  $p>.001$ ). Furthermore, the model fit of the full metrics invariance model was not worse than that of the configural invariance model ( $\Delta CFI=.000$ ,  $\Delta TLI=.001$ ,  $\Delta IFI=.000$ ,  $\Delta RMSEA=.000$ ). Next, the comparison of the full metrics invariance model to the intercept invariance model showed that they were not significantly different ( $\Delta\chi^2=135.227$ ,  $\Delta df=102$ ,  $p>.001$ ), and the model fit of the intercept invariance model was not worse than that of the full metrics invariance model ( $\Delta CFI=-.002$ ,  $\Delta TLI=.002$ ,  $\Delta IFI=.002$ ,  $\Delta RMSEA=.000$ ). With the validation of configural, full metric, and intercept invariance, the personality-based antecedent model was confirmed as an appropriate model for all service types.

*Testing of the Structural Model:* The baseline model, for which all paths across three service groups were freely estimated, was compared with a full structural invariance model that constrained all paths to be equal among groups. Comparison between the two models showed that all paths were not different across the three service groups ( $\Delta\chi^2=18.320$ ,  $\Delta df=10$ ,  $p>.001$ ). As shown in Table 28, all the coefficients except two paths (from Conscientiousness to COCB motivation and from Agreeableness to COCB motivation) were significant in all of the three service groups. This finding corresponds with the result for the tested hypotheses proposed by the personality-based antecedent model (see Figure 8 and Table 25). Thus, the multi-group analysis for the personality-based antecedent model showed that Conscientiousness and Agreeableness are not significantly related to COCB motivation in all service groups. However, Prosocial personality and Proactive personality have positive impact on COCB motivation for all three groups.



**Table 28.** Result of Multi-Group Path Comparison: Personality-Based Antecedents Model

	$\chi^2$	df	$\Delta\chi^2$	p-value
Unconstrained baseline model	6373.848	3635		
<u>Constrained paths</u>				
Conscientiousness → COCB Motivation	6374.642	3637	0.764	.672
Agreeableness → COCB Motivation	6377.939	3637	4.091	.129
Prosocial personality → COCB Motivation	6378.283	3637	4.435	.109
Proactive personality → COCB Motivation	6374.296	3637	0.448	.799
COCB Motivation → COCBs	6378.286	3637	4.438	.109
All paths constrained	6392.168	3645	18.320	.050

Path	Service Group 1		Service Group 2		Service Group 3	
	Std. Estimates	p-value	Std. Estimates	p-value	Std. Estimates	p-value
<u>Parameter Estimates</u>						
Conscientiousness → COCB Motivation	-.002	.998	-.090	.508	-.115	.120
Agreeableness → COCB Motivation	.228	.056	.076	.631	-.105	.354
Prosocial personality → COCB Motivation	.201	.039	.457	.000	.601	.000
Proactive personality → COCB Motivation	.356	.000	.394	.000	.298	.000
COCB Motivation → COCBs	.763	.000	.832	.000	.852	.000
<u>Covariances</u>						
Conscientiousness ↔ Agreeableness	.560	.000	.586	.000	.617	.000
Conscientiousness ↔ Prosocial	.563	.000	.628	.000	.647	.000
Conscientiousness ↔ Proactive	.550	.000	.629	.000	.573	.000
Agreeableness ↔ Prosocial	.675	.000	.767	.000	.655	.000
Agreeableness ↔ Proactive	.686	.000	.809	.000	.741	.000
Prosocial ↔ Proactive	.572	.000	.594	.000	.519	.000
<b>Model Fit Indices</b>	$\chi^2_{(3645)}=6392.168$ , CFI=.885, TLI=.880, IFI=.886, RMSEA=.034					

***Model of COCB Consequences******Testing of Measurement Model:***

The multi-group measurement invariance

models were tested in order to confirm invariance of the model of COCB consequences

among the service groups (Steenkamp and Baumgartner, 1998). The configural invariance model showed satisfactory levels as follows:  $\chi^2_{(2220)}=4532.994$ ;  $p<.000$ ; CFI=.927; TLI=.919 IFI=.927; RMSEA=.040. The comparison between the configural invariance model and the full metrics invariance model revealed that there is no significant fit difference between the two models ( $\Delta\chi^2=77.981$ ,  $\Delta df=58$ ,  $p>.001$ ). The model fit of the full metrics invariance model was not different from that of the configural invariance model ( $\Delta CFI=-.001$ ,  $\Delta TLI=.001$ ,  $\Delta IFI=-.001$ ,  $\Delta RMSEA=-.001$ ), confirming invariance between the two models. The intercept invariance model was then tested to compare it to the full metrics invariance model. The result showed that they were not significantly different ( $\Delta\chi^2=125.082$ ,  $\Delta df=82$ ,  $p>.001$ ), and the model fit of the intercept invariance model was not worse than that of the full metrics invariance model ( $\Delta CFI=-.002$ ,  $\Delta TLI=.001$ ,  $\Delta IFI=-.001$ ,  $\Delta RMSEA=.000$ ). The measurement model invariance of the COCB consequences model was confirmed, indicating that mean differences of the observed items reflect actual differences of latent variables across the three service groups.

*Testing of Structural Model:* The unconstrained baseline model was compared with a full structural invariance model that constrained all paths to be equal among groups. Because the difference in fit between the two models was not significant ( $\Delta\chi^2=40.368$ ,  $\Delta df=26$ ,  $p>.001$ ), the result revealed that all paths are not different across groups. Similar to the results of hypothesis testing of the current study (see Figure 9 and Table 26), two paths, from Economic Co-Creation Value to SAT with Outcomes and from Economic Co-Creation Value to SAT with Employees were not significant for all three service groups (see Table 29). Additionally, five paths in the COCB consequences

model were statistically significantly different among the three service groups at the significance level of .05 (COCBs → Social Co-Creation Value; Individual Co-Creation Value → SAT with Employees; SAT with Outcomes → SAT with SP; SAT with Employees → SAT with SP; SAT with SP → Recommend to Others). However, except for the path from SAT with Employees to SAT with SP, four of the five paths were significant for all the three service groups. More specifically, the four paths showed the different impacts of antecedents on consequences across the three groups. For example, the positive impact of Individual Co-Creation Value on SAT with Employees was stronger in Service Group 1 ( $\beta=.517$ ) than in Service Group 2 ( $\beta=.399$ ) and 3 ( $\beta=.218$ ). In addition, even though the result of hypothesis testing confirmed that SAT with Employees positively influences SAT with SP regardless of the types of service group, this group comparison revealed that the impact of SAT with Employees on SAT with SP in Service Group 2 and 3 was significantly positive ( $\beta=.470$ ,  $p=.000$  and  $\beta=.143$ ,  $p=.000$  respectively), whereas the impact in Service Group 1 was not significant ( $\beta=.107$ ,  $p=.113$ ).

**Table 29.** Result of Multi-Group Path Comparison: COCB Consequences Model

	$\chi^2$	df	$\Delta\chi^2$	p-value
Unconstrained baseline model	5006.670	2341		
<u>Constrained paths</u>				
COCBs → Economic Co-Creation Value	5010.581	2343	3.911	.141
COCBs → Individual Co-Creation Value	5011.783	2343	5.113	.078
COCBs → Social Co-Creation Value	5013.134	2343	6.464	<b>.039</b>
Economic Co-Creation Value → SAT with Outcomes	5006.741	2343	0.071	.965
Individual Co-Creation Value → SAT with Outcomes	5011.526	2343	4.856	.088
Social Co-Creation Value → SAT with Outcomes	5007.071	2343	0.401	.818

(table continues)

	$\chi^2$	df	$\Delta\chi^2$	p-value
Economic Co-Creation Value → SAT with Employees	5009.039	2343	2.369	.306
Individual Co-Creation Value → SAT with Employees	5013.613	2343	6.943	<b>.031</b>
Social Co-Creation Value → SAT with Employees	5007.642	2343	0.972	.615
SAT with Outcomes → SAT with SP	5016.315	2343	9.645	<b>.008</b>
SAT with Employees → SAT with SP	5015.430	2343	8.760	<b>.013</b>
SAT with SP → Recommend Others	5014.774	2343	8.104	<b>.017</b>
All path constrained	5047.038	2367	40.368	.036

Path	Service Group 1		Service Group 2		Service Group 3	
	Std. Estimates	p-value	Std. Estimates	p-value	Std. Estimates	p-value
COCBs → Economic Co-Creation Value	.781	.000	.729	.000	.696	.000
COCBs → Individual Co-Creation Value	.879	.000	.849	.000	.791	.000
COCBs → Social Co-Creation Value	<b>.832</b>	<b>.000</b>	<b>.799</b>	<b>.000</b>	<b>.738</b>	<b>.000</b>
Economic Co-Creation Value → SAT with Outcomes	-.060	.516	-.079	.335	-.044	.555
Individual Co-Creation Value → SAT with Outcomes	.482	.000	.376	.000	.247	.001
Social Co-Creation Value → SAT with Outcomes	.291	.000	.357	.000	.388	.000
Economic Co-Creation Value → SAT with Employees	-.064	.497	-.156	.060	.038	.621
Individual Co-Creation Value → SAT with Employees	<b>.517</b>	<b>.000</b>	<b>.399</b>	<b>.000</b>	<b>.218</b>	<b>.006</b>
Social Co-Creation Value → SAT with Employees	.249	.005	.366	.000	.299	.000
SAT with Outcomes → SAT with SP	<b>.853</b>	<b>.000</b>	<b>.486</b>	<b>.000</b>	<b>.832</b>	<b>.000</b>
SAT with Employees → SAT with SP	<b>.107</b>	<b>.133</b>	<b>.470</b>	<b>.000</b>	<b>.143</b>	<b>.026</b>
SAT with SP → Continue the Relationship	.601	.000	.723	.000	.633	.000
SAT with SP → Recommend to Others	<b>.618</b>	<b>.000</b>	<b>.759</b>	<b>.000</b>	<b>.689</b>	<b>.000</b>
<b>Model Fit Indices</b>	$\chi^2_{(2367)}=5047.038$ , CFI=.915, TLI=.911, IFI=.915, RMSEA=.041					

Note: SAT=Satisfaction, SP=Service Provider

### ***The Comprehensive Theoretical Model***

#### ***Testing of Measurement Model:***

In order to confirm invariance of the comprehensive model among the service groups, the configural invariance model was first assessed. The results showed that values of CFI, TLI, IFI, and RMSEA were close to satisfactory levels as follows:  $\chi^2_{(11550)}=21514.259$ ;  $p<.000$ ; CFI=.846; TLI=.831 IFI=.848; RMSEA=.036. When comparing the configural invariance model to the full metrics invariance model, the full metrics invariance model was not significantly different from the configural invariance model ( $\Delta\chi^2=146.783$ ,  $\Delta df=128$ ,  $p>.001$ ). Next, the intercept invariance model was tested in comparison to the full metrics invariance model. The results showed that they were somewhat different ( $\Delta\chi^2=253.803$ ,  $\Delta df=182$ ,  $p<.001$ ), but the model fit of the intercept invariance model was not worse than that of the full metrics invariance model ( $\Delta CFI=-.001$ ,  $\Delta TLI=.001$ ,  $\Delta IFI=-.001$ ,  $\Delta RMSEA=.000$ ). Because the difference of CFI was less than .01 (Cheung and Rensvold, 2002) and RMSEA was overlapped in 90% confidence intervals (Cadiz, Sawyer, and Griffith, 2009; Wang and Russell, 2005), the similarity between the full metrics invariance model and the intercept invariance model was confirmed. Hence, the measurement model invariance of the comprehensive model was confirmed, indicating that mean differences of the observed items reflect actual differences of latent variables across the three service groups.

#### ***Testing of Structural Model:***

When comparing the unconstrained baseline model to the full structural invariance model that constrained all paths to be equal among groups, the difference in fit between the two models was not significant ( $\Delta\chi^2=64.072$ ,  $\Delta df=46$ ,  $p>.001$ ). Thus, the result revealed that all paths are not different across groups. The results showed that four paths (from COCB to Social Co-Creation Value ( $p=.045$ ),

from SAT with Outcomes to SAT with SP ( $p=.008$ ), from SAT with Employees to SAT with SP ( $p=.012$ ), and from SAT with SP to Recommend Others ( $p=.017$ )) were significantly different among three service groups (see Table 30). The multi-group path comparison of the COCB consequences model revealed that a path from Individual Co-Creation Value to SAT with Employees was significantly different across three service groups, but the multi-group path comparison of the comprehensive theoretical model showed that there are no differences in the path among the three groups ( $p=.072$ ). Interestingly, even though a path between SAT with Employees and SAT with SP was significant for Service Group 2 ( $\beta=.470$ ) and 3 ( $\beta=.143$ ), it was not statistically significant for Service Group 1 ( $\beta=.106$ ,  $p=.138$ ).

**Table 30.** Result of Multi-Group Path Comparison: Comprehensive Theoretical Model

	$\chi^2$	df	$\Delta\chi^2$	p-value
Unconstrained baseline model	22982.193	11975		
<u>Constrained paths</u>				
CPGOJ $\rightarrow$ CPOS (Added)	22983.073	11977	0.880	.644
CPGOJ $\rightarrow$ CAC	22982.803	11977	0.610	.737
CPOS $\rightarrow$ CAC	22983.811	11977	1.618	.445
CAC $\rightarrow$ COCB Motivation	22984.608	11977	2.415	.299
CPGOJ $\rightarrow$ COCB Motivation (Added)	22982.676	11977	0.483	.785
Conscientiousness $\rightarrow$ COCB Motivation	22983.860	11977	1.667	.434
Agreeableness $\rightarrow$ COCB Motivation	22984.167	11977	1.974	.373
Prosocial personality $\rightarrow$ COCB Motivation	22984.922	11977	2.729	.256
Proactive personality $\rightarrow$ COCB Motivation	22982.802	11977	0.609	.738
COCB Motivation $\rightarrow$ COCBs	22986.183	11977	3.990	.136
COCBs $\rightarrow$ Economic Co-Creation Value	22986.673	11977	4.480	.106
COCBs $\rightarrow$ Individual Co-Creation Value	22987.224	11977	5.031	.081
COCBs $\rightarrow$ Social Co-Creation Value	22988.417	11977	6.224	<b>.045</b>

(table continues)

	$\chi^2$	df	$\Delta\chi^2$	p-value
Economic Co-Creation Value → SAT with Outcomes	22982.224	11977	0.031	.985
Individual Co-Creation Value → SAT with Outcomes	22986.175	11977	3.982	.137
Social Co-Creation Value → SAT with Outcomes	22982.719	11977	0.526	.769
Economic Co-Creation Value → SAT with Employees	22983.499	11977	1.306	.820
Individual Co-Creation Value → SAT with Employees	22987.449	11977	5.256	.072
Social Co-Creation Value → SAT with Employees	22982.719	11977	1.382	.501
SAT with Outcomes → SAT with SP	22991.953	11977	9.760	<b>.008</b>
SAT with Employees → SAT with SP	22991.047	11977	8.854	<b>.012</b>
SAT with SP → Continue the Relationship	22986.735	11977	4.525	.103
SAT with SP → Recommend Others	22990.291	11977	8.098	<b>.017</b>
All path constrained	23046.270	12021	64.077	.040

Path	Service Group 1		Service Group 2		Service Group 3	
	Std. Estimates	p-value	Std. Estimates	p-value	Std. Estimates	p-value
CPGOJ → CPOS (Added)	.817	.000	.762	.000	.760	.000
CPGOJ → CAC	.167	.070	.205	.008	.126	.122
CPOS → CAC	.564	.000	.560	.000	.468	.000
CAC → COCB Motivation	.234	.000	.391	.000	.312	.000
CPGOJ → COCB Motivation (Added)	.272	.000	.195	.011	.270	.000
Conscientiousness → COCB Motivation	.003	.977	-.139	.299	-.180	.033
Agreeableness → COCB Motivation	-.014	.896	.189	.184	-.047	.620
Prosocial personality → COCB Motivation	.289	.000	.180	.115	.409	.000
Proactive personality → COCB Motivation	.319	.000	.287	.000	.246	.001
COCB Motivation → COCBs	.967	.000	.934	.000	.973	.000
COCBs → Economic Co-Creation Value	.741	.000	.683	.000	.614	.000
COCBs → Individual Co-Creation Value	.714	.000	.878	.000	.882	.000
COCBs → Social Co-Creation Value	<b>.827</b>	<b>.000</b>	<b>.805</b>	<b>.000</b>	<b>.694</b>	<b>.000</b>
Economic Co-Creation Value → SAT with Outcomes	.025	.732	.021	.735	.008	.895

(table continues)

Path	Service Group 1		Service Group 2		Service Group 3	
	Std. Estimates	p-value	Std. Estimates	p-value	Std. Estimates	p-value
Individual Co-Creation Value → SAT with Outcomes	.548	.000	.427	.000	.376	.000
Social Co-Creation Value → SAT with Outcomes	.131	.048	.217	.000	.182	.002
Economic Co-Creation Value → SAT with Employees	.117	.933	-.055	.374	.063	.329
Individual Co-Creation Value → SAT with Employees	.577	.000	.450	.000	.341	.000
Social Co-Creation Value → SAT with Employees	.112	.115	.224	.000	.133	.026
SAT with Outcomes → SAT with SP	<b>.854</b>	<b>.000</b>	<b>.485</b>	<b>.000</b>	<b>.832</b>	<b>.000</b>
SAT with Employees → SAT with SP	<b>.106</b>	<b>.138</b>	<b>.470</b>	<b>.000</b>	<b>.143</b>	<b>.027</b>
SAT with SP → Continue the Relationship	.598	.000	.718	.000	.629	.000
SAT with SP → Recommend to Others	<b>.615</b>	<b>.000</b>	<b>.755</b>	<b>.000</b>	<b>.686</b>	<b>.000</b>
<b>Model Fit Indices</b>	$\chi^2_{(12021)}=23046.265$ , CFI=.835, TLI=.830, IFI=.834, RMSEA=.037					

Note: SAT=Satisfaction, SP=Service Provider

This chapter described the data analysis of the quantitative research and results of the proposed theoretical models and post-hoc analysis. The following chapter will summarize the findings, and discuss the theoretical and managerial implications.



## CHAPTER 6

### CONCLUSIONS AND DISCUSSION

Chapter 6 provides a discussion of the study's findings, including interpretation of and insights regarding the results. Based on the results, theoretical and managerial implications are addressed, and limitations of this study and ideas for future research are also introduced.

#### Discussion

##### Scale Development

##### *Scale Development of COCB Motivation*

The scale items for COCB motivation were developed and tested based on mixed research methodology including qualitative and quantitative studies across three types of service contexts. By scrutinizing all relevant items in the initial five themes found by the qualitative study (*Personal principles/beliefs about treatment of others*, *Expectations of (in)tangible benefits to oneself*, *Understanding the challenge of the service business*, *Support/Bolstering of the service organization*, and *Reward for good service/relationship with the service organization*), COCB motivation was found to include both personal aspects of motivation such as individual principles and/or desires and social aspects based on the relationship with the service organization. Furthermore, the testing of scale validation also confirmed the various types of motivation that lead to COCBs. For example, the findings of the current study include an individual's principles/beliefs of doing right and expectations of benefits he/she may receive through his/her COCBs as personal aspects of motivation. In addition, social aspects of motivation include a reward

for good service provided by the service provider and a customer's desires to help the service provider perform well.

The findings of the present study are supported by theories regarding behavioral motivation (Deci and Ryan, 1985; Glasford, 2008). The result corresponds with Glasford's (2008) argument, that is, a particular behavior is derived from both personal motivation including individual attitudes toward performing the behavior and also from social motivation such as perceived social support. However, social motivation, as argued by Glasford (2008), is closer to an individual's perceived social support from others as an impetus for him/her to engage in a particular behavior, e.g., friends and other important referents provide social support for the behavior. In this study, social support is the individual's desire to help another based upon a perceived social relationship with them. Moreover, Glasford's (2008) social motivation pertains to perceived social support from others (e.g., other customers or shopping companions) in performing COCBs for a service organization, whereas the finding of this study is more relevant to the relationship with the service organization than other customers or companions. Considering that this study is based on the relationship with a service organization with which customers have had transactions, social motivation based on past relationship is a crucial and meaningful finding.

Similarly, the findings of the current study reflect intrinsic and extrinsic aspects of behavioral motivation as customers are intrinsically and extrinsically motivated to perform voluntary behaviors such as COCBs. As Deci and Ryan (1985) argue, customers may voluntarily help their service organization by being stimulated by their own inherent interests and desires and/or anticipated outcomes. For instance, personal interests and

belief systems (i.e., *Personal principles*) with regard to helping others may be important intrinsic motivations for benefiting the service organization. Moreover, a desire to reap a reward from the service organization (e.g., discounts) for voluntary behaviors (i.e., *Expectations of [in]tangible benefits to oneself*) may be an extrinsic motivation reflecting an expectation of an outcome that may be produced by COCBs. Consequently, the present study is supported by concepts and theories regarding behavioral motivation (Deci and Ryan, 1985; Glasford, 2008).

Interestingly, the findings of the qualitative study suggest that customers may be motivated by needs or desires of tangible benefits including monetary rewards/incentives (e.g., discounts, free service) and career-relevant benefits. However, the final set of COCB motivation measurements indicates that motivations associated with these types of benefits are not motivations that lead to customers' voluntary behaviors. In contrast, Xia and Suri (2014) argue that monetary incentives (e.g., cost savings) motivate customers to co-create. They propose that customers are not intrinsically motivated, but only extrinsically motivated, to participate in efforts 'required to create a service' (i.e., in-role, required behaviors). Xia and Suri (2014) mention that customers might have expectations of monetary compensation under these circumstances, because, otherwise, they might feel that they are being exploited. However, because this study focuses on voluntary and discretionary behaviors, which are not required for successful service delivery, consumers use their own volition. As they do not feel "exploited," expectations of monetary and other tangible rewards do not actually lead them to perform COCBs. Rather, customers who perform COCBs do so due to expectation of feelings of self-satisfaction, achievement, and personal growth. For example, when customers voice opinions to

service organizations and those opinions are acknowledged and accepted, customers may have feelings of accomplishment and satisfaction. This finding is one of the meaningful contributions of this research.

Lastly, this study's findings statistically demonstrate that COCB motivation is a multi-dimensional construct with a second-order nature, indicating four sub-dimensions that represent COCB motivation—*Self-enhancement*, *Personal principles*, *Desire to support the service organization*, and *Perception of the service organization's past performance*. This finding is conceptually supported by prior literature that has argued that motivation is a construct that cannot be explained by only one dimension (e.g., personal vs. social motivation, intrinsic vs. extrinsic motivation) (Glasford, 2008; Deci and Ryan, 1985). Therefore, this study theorized and confirms that motivation is a multi-dimensional construct that encompasses a variety of aspects rather than an unidimensional one that can be explained as a particular dimension.

#### ***Scale Development of COCBs***

One of the important goals of the current research is to confirm the suitability of existing scale items that measure COCBs and to ascertain whether there are additional items beyond the existing scale items. The results, achieved through qualitative and quantitative research, confirm that COCB is a second-order factor construct that is composed of four dimensions (*Helping*, *Advocacy*, *Tolerance*, and *Feedback*), supporting previous research (see Yi and Gong, 2013). The current study also revealed that most existing scale items representing each dimension of COCBs are suitable and valid in measuring COCBs in the offline service context.

In addition to the confirmation of suitability of existing scale items, the current

study found an additional three items that indicate actual COCBs—one item for *Helping* (“I have helped the service organization with some of its operations”), one item for *Tolerance* (“I have been kind and considerate even though a mistake was made”), and one item for *Feedback* (“I have informed the service organization about great or poor service received from an individual employee”). While four items contained in the *Helping* dimension of existing scales were focused only on customers’ behaviors to help other customers, the additional item found through the present study—“I have helped the service provider with some of its operations”—reflects customers’ voluntary behaviors to assist the service organization. Moreover, Yi and Gong (2013) identify customers’ kind and polite behaviors to service employees as customer in-role (required) behaviors. However, the current qualitative study found that customers perceive their kind and considerate behaviors as voluntary and discretionary behaviors, especially when considering a situation in which a mistake is made (*Tolerance* dimension).

Even though the measurement instrument of Yi and Gong (2013) does not include an item of the *Feedback* dimension found through this study, “When I have had feedback about the service, I filled out a customer survey form,” the earlier study of Groth (2005) suggests that completing a customer satisfaction form is one of the customer citizenship behaviors related to *Feedback*. In addition, although a newly-found item in the *Feedback* dimension (“I have informed the service provider about great or poor service received from an individual employee”) is similar to an item of the *Feedback* dimension investigated by Yi and Gong (2013) (“When I receive good service from the employee, I comment about it”), the item suggested by the current study includes more detail and a broader situation. More specifically, the existing item means that customers compliment

the service employee who provides good service, whereas our item emphasizes that customers may make an evaluative comment regarding the service provided by a particular employee regardless of whether or not the service is good. Therefore, the finding of this study not only supports previous studies that have developed scale items to measure COCBs, but also finds three additional items to add to existing scale items.

As another interesting finding of this study, the qualitative component of the study reveals that customers are willing to promote their service organization through online platforms such as its website and social media. For instance, responses of informants in the qualitative research show that customers tend to leave feedback about what they received from the service organization on a website of the service organization. For the *Advocacy* dimension, customers may share their experiences with or evaluations of the service organization with others by leaving comments on social media such as Facebook and Instagram (e.g., “I have shared with others my positive experiences with the service organization via social media”). Even though these two items related to COCBs via social media are not retained in the final set of scale items, the findings reflect a current phenomenon that social media has become a relatively significant vehicle which allows customers to promote service organizations to other customers.

### ***Scale Development of Customer Co-Creation Value***

An objective of this study is to explore additional scale items that measure customer co-creation value that customers may perceive through their COCBs, confirming the appropriateness of extant scale items. Moreover, this study aims to investigate whether customer co-creation value includes three distinct facets—*economic*, *individual*, and *social co-creation value*—as the prior research has suggested (Chan et al.,

2010; Dong et al., 2008). Because studies pertaining to customer co-creation value have adapted scale items from prior research that have investigated customer value that customers may perceive through consumption of products and/or services, it is meaningful to confirm the suitability of the existing measurements and to find additional items reflecting the three facets of customer co-creation value.

The current study found that the informants' responses in the qualitative study include all items adapted from the previous studies (Chan et al., 2010; Dong et al., 2008; Meuter et al., 2005), except three items including two in *economic co-creation value* and one in *individual co-creation value*. Of the two items in economic co-creation value, one is related to control of the service quality ("My voluntary participation allowed me to receive more control over the services quality") and the other to reduction of service failures ("My voluntary participation allowed me to receive less service failure"). An item in *individual co-creation value* pertains to a sense of feeling independence ("My voluntary participation allowed me to feel independence"). In addition, the qualitative research uncovered applicable additional items that measure three dimensions of customer co-creation value. Integrating the existing items that are adapted from previous studies and the additional items developed by the qualitative research of this study, the final set of measurement scales for customer co-creation value is comprised of eight items for *economic co-creation value*, eleven items for *individual co-creation value*, and six items for *social co-creation value*. The result of the EFA based on the larger dataset that was collected for the quantitative research found measurement items for each dimension of customer co-creation value: three items for *economic co-creation value*, five items for *individual co-creation value*, and three items for *social co-creation value*.

More specifically, the final item set of *economic co-creation value* is composed of only newly-developed items, excluding the extant items. Whereas the existing scale items include the quality or professionalism of the service per se (“My voluntary behaviors allowed me to receive higher quality services” and “My voluntary behaviors allowed me to receive more professional services”), the newly-developed items are more directly related to monetary value (“My voluntary behaviors allowed me to gain more value for my money” and “My voluntary behaviors allowed me to receive rewards (e.g., discounts, coupons, and/or free offerings)”). In terms of *individual co-creation value*, scale items that were additionally found include perception of themselves, such as a sense of pride and good feeling about themselves when customers voluntarily participate in COCBs. Lastly, the newly-developed measures for *social co-creation value* include a close relationship that transcends beyond a formal customer-service provider relationship (“My voluntary behaviors allowed me to be a friend to the service employees”).

Most probably the differences in the current study’s scale items pertaining to perceived co-creation value, as compared to extant value measurements, lie in the fact that the former were developed in the context of customers’ voluntary behaviors towards service organizations in face-to-face situations. In contrast to this study’s conceptualization, prior studies have adapted extant measurement scale items, which were developed in contexts that are not related to COCBs, such as self-service technology (Meuter et al., 2005) and transactions for service offerings (Hartline and Ferrell, 1996; Zeithaml, 1988). Voluntary behaviors may not be linked as closely to the quality of delivery and outcome of the service itself (e.g., service quality/service failures) and consumers’ perceived control/independence in the service experience, as those behaviors



that are mandatory for service creation and delivery. In other words, voluntary behaviors may be viewed as “supplements” that are perceived as less related to the core delivery/quality of service. Although there is an overlap with some extant perceived co-creation value scale items, the measurement instrument developed and utilized in this study is uniquely associated with perceived values in the COCB context. Thus, the perceived co-creation value scale used in this study should be examined and tested in future COCB studies as well as other investigations into individuals’ volitional activities.

### **Hypotheses Testing and Post-Hoc Analysis**

COCBs can be considered as customers’ behavioral outcomes, which are influenced by customers’ perceptions based on social relationships with their service organizations and their personality traits. Thus, the present study first tested hypotheses by dividing the comprehensive theoretical model into three parts: 1) social exchange-based antecedents of COCBs, 2) personality-based antecedents of COCBs, and 3) consequences of COCBs that include customer co-creation value, customer satisfaction, and behavioral intentions. The results of hypotheses testing are discussed based on the three models. The findings of the comprehensive theoretical model testing are then provided to address consistencies with and differences from the findings of the testing of the three individual models. Lastly, the results of the post-hoc analysis, which investigated potential differences and similarities among the three types of service organizations, are addressed.

### ***Impact of COCB Motivation on COCBs***

The current study conceptualizes COCB motivation as an important determinant of COCBs. As most research investigating behavioral motivations has argued

(Bettencourt et al., 2002; Dellande et al., 2004), the results of the current study provide evidence that COCB motivation is an important predictor that leads customers to perform COCBs in the service context. This finding is in line with Dellande et al.'s (2004) finding that a customer's motivation to engage in coproduction is an important requirement for coproduction behavior in the service production process.

Moreover, an individual's COCB motivations, encompassing four dimensions—*Self-enhancement*, *Personal principles*, *Desire to support the service organization*, and *Perception of the service organization's past performance*—are psychological drivers that induce customers to engage in COCBs. The findings regarding the multidimensional construct of COCB motivation support the argument of Batson and Shaw (1991), that is, it is difficult to determine a particular motivation that elicits a COCB because customers may have multiple simultaneous motivations. Thus, confirming the argument of previous researchers (Bettencourt et al., 2002; Dellande et al., 2004), this study provides the first empirical investigation and findings regarding the role of COCB motivation as a determinant of COCBs.

### ***Impact of Social Exchange-Based Antecedents on COCBs***

This study argues that customers' perceptions, based on their positive relationships with service organizations, may lead them to be motivated to participate in COCBs, and, in turn, encourage their COCBs. Specifically, as argued by social exchange theory, CPOS and CPGOJ positively influence CAC. Therefore, CAC is likely to be positively related to COCB motivation, which may have a positive impact on COCBs. The statistical results, based on the initially proposed theoretical model, reveal that CAC has a positive impact on COCB motivation, which is positively associated with COCBs.

As anticipated, the results also support that CPOS is significantly positively related to CAC. However, the initial findings show the opposite result to the hypothesis pertaining to the positive impact of CPGOJ on CAC, as CPGOJ is negatively associated with CAC. However, based on an alternative theoretical model suggested by modification indices including three additional paths between constructs (CPGOJ  $\rightarrow$  CPOS, CPGOJ  $\rightarrow$  COCB motivation, and CPOS  $\rightarrow$  COCB motivation), the results provide support for the argument of social exchange theory, as hypothesized. As the current study initially hypothesizes, the positive impact of CPGOJ on CAC is confirmed. Furthermore, the results uncover that CPGOJ is strongly positively related to CPOS. That finding is in line with prior empirical research that employees' perceived justice positively influences their perceptions of organizational support (Masterson et al., 2000; DeConinck, 2010). Similarly, this study's results indicate customers' perceptions of justice through service organizations increase their perceptions of support from those service organizations. Thus, in this sense, the findings support the concept that customers are partial employees in the co-creation process.

The additional paths also reveal the strong positive impact of CPGOJ on COCB motivation. This result is consistent with previous studies, that is, an effort to satisfy consumers' needs for fairness perception and uncertainty reduction leads them to be more cooperative, expressive, and conscientious in their performance during the service encounter (see Moorman, 1991; Bettencourt, 1997). However, the results do not show a significant and positive relationship between CPOS and COCB motivation, even though Bettencourt (1997) demonstrates that customer perceived support positively influences customer voluntary performance including cooperation and participation with the service

firm. However, as a differentiator between the current study and Bettencourt's (1997) study, the current study investigates the impact of CPOS on *COCB motivation* rather than its direct influence on COCBs. It implies that CPOS may be the more immediate determinant of COCBs rather than being an antecedent of COCB motivations. Furthermore, CPOS is positively related to CAC, emphasizing the role of CAC as an important antecedent of COCB motivation. Further research is needed to examine the differences between the influences of CPOS on COCB motivation versus those on actual COCBs.

### ***Impact of Personality-Based Antecedents on COCBs***

Four types of personality traits (conscientiousness, agreeableness, prosocial, and proactive personalities) are proposed to investigate whether they positively influence COCB motivation that is positively related to actual COCBs. Consistent with the prediction, the strong and positive impact of COCB motivation on COCBs is alike confirmed in the personality-based antecedent model. Customer personality traits, prosocial personality and proactive personality, as anticipated, are positively associated with COCB motivation. The findings are in line with past studies that found that employees' prosocial and proactive personalities are important determinants of employees' OCBs (Midili and Penner, 1995; Li et al., 2010; Rank et al., 2007).

Contrary to the prediction, however, even though previous investigations published in the organizational literature have empirically demonstrated the positive impact of conscientiousness and agreeableness on employees' OCBs (Borman et al., 2001; Motowidlo and Van Scotter, 1994; Kamdar and Van Dyne, 2007), that is not the case in this study, which shows that conscientiousness and agreeableness do not have a

significant positive impact on COCB motivation. According to arguments of personality psychologists (McCrae and Costa, 1991; Organ, 1994), conscientiousness can be empirically described as being neat, punctual, careful, and self-disciplined, which may be associated with more impersonal tendencies or characteristics including punctuality, attendance, rule compliance, productive and effective use of time, and care for organizational property. In retrospect, conscientiousness of employees may have a stronger impact on motivation of voluntary behaviors in the workplace than that of customers in the marketplace. The rationale for that view is that performance-related factors, such as rule compliance, productive use of time, and care for organizational property may be more related to the workplace in which employees engage in voluntary behaviors. The marketplace setting is not as focused on customers' efficiency, punctuality, and rule following. Thus, the setting in which voluntary behaviors are co-created may impact the ability of particular personality traits to predict motivations for specific types of voluntary behaviors such as COCBs.

Another personality trait that had an insignificant impact on COCB motivations in this study is agreeableness. Agreeableness describes how well individuals typically "get along with" those around them (Organ, 1994). Organ and Lingl (1992) argue that an agreeable person tends to derive more satisfaction from work associates or coworkers, and, thus, this type of personality displays more reciprocal behaviors compared to those not so agreeable. Perhaps because employees have more opportunities to "get along" with their coworkers in the workplace on an everyday basis than do customers in periodic interactions with service providers and other customers, the positive impact of agreeableness on employees' OCBs is significant. But the impact of agreeableness may

not be as significant as a motivation to predict COCBs. In addition, OCB literature confirms that employees' agreeableness is positively related to their OCBs (Kamdar and Van Dyne, 2007), but the current study investigates the impact of customers' agreeableness on COCB motivation rather than COCBs. Employees' OCBs focus on helping, altruistic, and cooperative behaviors for their coworkers and firm, whereas COCB motivation in this study includes not only altruism and supportive willingness for service organizations but also personal principles and mottos. Thus, similar to previous studies regarding the positive relationship between agreeableness and OCB, agreeableness may have a positive impact on COCBs per se, rather than COCB motivation.

Although the hypothesis that conscientiousness and agreeableness personality traits significantly influence COCB motivations was not supported through this study, customers' prosocial and proactive personalities are predictors that lead customers to participate in COCBs through their increased motivations to perform those voluntary behaviors. In other words, the results uncover that customers who are highly prosocial, which is conceptualized by Other-oriented empathy and Helpfulness, are more likely to be motivated to perform COCBs. Similarly, customers with stronger proactive personalities are more motivated to engage in COCBs as compared to those with weaker proactive personalities. Such proactive individuals who hold "make it happen" types of personalities as well as those with "other- and helping others-traits" are more inclined to be motivated to perform beneficial, voluntary activities for their service providers.

Lastly, no known studies examine the four examined personality traits as antecedents of COCBs, through COCB motivations, simultaneously. As a crucial attempt

that considers a variety of personality traits, further research is needed to empirically investigate the influence of other personalities of customers on COCBs.

### ***Impact of COCBs on Customer Co-Creation Value***

This study argues that COCBs have a positive influence on customers' perceptions of co-created values, suggesting three types of customer co-creation values: economic, individual, and social co-creation values. As anticipated, COCBs are positively related to economic co-creation value, which encompasses cost savings, monetary value, and rewards. Chan et al. (2010) show that customers may experience economic value such as better service quality, more customized service, and a higher level of customer control through participation in co-creation activities in the service area. Auh et al. (2007) suggest that co-production with service organizations provides customers benefits such as higher levels of customization, cost reduction, and greater discretion. Even though the scale items that measure economic co-creation value in this study are somewhat different from past studies, this finding coheres with arguments of previous research, showing that customers may experience various economic co-creation values, especially the monetary aspects of economic value (cost savings, monetary value, and rewards) through their voluntary behaviors. This result is also an important finding in that this study confirms that COCBs positively influence monetary aspects of economic co-creation value.

Consistent with the study's prediction, COCBs have strong positive impact on individual co-creation value. According to Dong et al. (2008), customers may perceive enjoyable experiences, a sense of goal achievement, and personal growth through participation in value co-creation. Thus, this finding provides evidence to support prior

research (Dong et al., 2008; Meuter et al., 2005). The results also show that COCBs are positively associated with social co-creation value. This finding is line with previous studies, which have demonstrated that customer participating behaviors lead to enhanced relationships with service organizations and the enjoyment of social interaction with service employees (Claycomb et al., 2001; Wagner, 2007; Chan et al., 2010).

### ***Impact of Customer Co-Creation Value on Customer Satisfaction and Behavioral Intentions***

The current study proposes customer satisfaction as an outcome of customer co-creation value through COCBs. More specifically, this study investigates how customers' co-creation values through COCBs directly influence their satisfaction with two different aspects of service—with customers' satisfaction with service outcome and with frontline employees. In turn, both customers' satisfaction with service outcomes and frontline employees are proposed to predict positively their satisfaction with the service organization. In this study, satisfaction with service outcomes and satisfaction with the frontline employees are conceptualized as transaction-specific satisfaction, and satisfaction with the service organization is considered overall satisfaction.

This study recognizes that different types of customers' perceived co-creation value may differentially affect different components of their satisfaction. The findings confirm this speculation. Contrary to the prediction, the proposed positive impact of economic co-creation value on customer satisfaction with service outcomes are not found in the current study. However, the results show the positive effect of individual co-creation value on customer satisfaction with service outcomes. This finding indicates that when customers perceive feelings of achievement through COCBs, they may experience



satisfaction toward the service outcome, which refers to what customers receive during the interaction with the service organization. Similarly, the present study demonstrates that social co-creation value is positively related to customer satisfaction with service outcomes. This finding supports Gremler and Gwinner's (2008) argument, which suggests that because a close relationship with a customer allows service employees to better understand a customer's needs and expectations, these service employees may provide more customized and improved service outcomes to the customer. Of course, this may result in customer satisfaction with these outcomes.

Similar to the influence of customer co-creation value on customer satisfaction with service outcomes, the results reveal that economic co-creation value does not have a positive impact on customer satisfaction with frontline employees, whereas both individual and social co-creation values predict positively customer satisfaction with frontline employees. It is possible for customers to perceive satisfaction with frontline employees through individual co-creation value because frontline employees with whom they have interacted give them feelings of achievement and self-worth through acceptance of their COCBs. According to Wu and Liang (2009), when customers experience value through interaction with service employees, they are satisfied with those service providers. Even though their investigation is not focused on the COCB situation, the findings of the current study show a similar result to their study, providing evidence that value perception through COCBs positively influences satisfaction with frontline employees. This finding is a meaningful addition to the literature in that customers' perceived value is positively related to satisfaction with service employees in a variety of situations including COCBs. In the service delivery process, furthermore, when

customers have a close rapport with service employees, it may be possible for customers to recognize an employee's characteristics or attitudes. Thus, customers may also perceive customer satisfaction with frontline employees through social co-creation value based on participation in the service delivery process (see Reynold and Beatty, 1999).

Consequently, despite the support pertaining to the positive impact of individual and social co-creation values on transaction-specific satisfaction (customer satisfaction with service outcome and with frontline employees), economic co-creation value does not positively influence those types of transaction-specific satisfaction. The results indicate that, in the COCB situation, customers may be more likely to be satisfied by value perceptions based on their goal achievement or accomplishment (i.e., individual co-creation value) and by value perception based on enjoyable experiences and/or improved relationships (i.e., social co-creation value) rather than by value perceptions through economic rewards or cost savings (i.e., economic co-creation value). When customers' voluntary behaviors such as COCBs are acknowledged and/or accepted by the service organization, they may perceive a sense of achievement (i.e., individual co-creation value) that positively influences satisfaction with the transaction outcome and employees. Furthermore, they may feel satisfied with service employees who they work with during their COCBs when they experience a more enjoyable interaction (i.e., social co-creation value) in COCB process.

The findings pertaining to the positive relationship between social co-creation value and satisfaction is in line with Chan et al.'s (2010) finding, whereas the relationship between economic co-creation value and satisfaction is not supported by the current study. Chan et al.'s (2010) study utilizes different types of economic value (e.g., better

service quality, customized service, and customer control), which are more directly related to service outcome and employees rather than monetary types. In the current study, however, economic co-creation value focused on monetary types (cost savings and rewards), and monetary types may not influence satisfaction with service outcome and frontline employees because monetary types of economic value are less likely to be relevant to service outcomes and/or frontline employees, compared to individual co-creation value and social co-creation value, especially in the COCB context. As another reasoning, economic co-creation value in this study is a utilitarian type of perceived value, whereas the other two values, individual and social, are hedonic types of perceived value. Perhaps, in COCB situations, utilitarian types of co-creation value may not predict satisfaction with service outcome and with frontline employees. The qualitative study of this study found that other utilitarian types of perceived value such as time savings and efficiency in service delivery process are also economic co-creation value, which customers perceive through their COCBs, but they were not included in the quantitative study. Thus, in the COCB context, utilitarian types of perceived value may not have an impact on customer satisfaction. In another explanation, the insignificant relationship between economic co-creation value and transaction-specific satisfaction may be the result of social-desirability response bias, as acquisition of monetary values through COCBs may have been perceived by the respondents of the quantitative study as contradictory to the nature of voluntary behaviors. In yet another rationale, considering that COCBs are particular situations, economic co-creation value may have a significant positive impact on different types of transaction-specific satisfaction, not investigated in this research, such as satisfaction with the COCB experience. Thus, future investigation is warranted.

Additionally, the results reveal that transaction-specific satisfaction (i.e., customer satisfaction with the service outcome and frontline employees) translates into overall satisfaction (i.e., customer satisfaction with the service organization). This finding is consistent with researchers' arguments that there is a spillover effect of satisfaction with particular attributes of a service organization on the overall satisfaction with the service organization (Beatty et al., 1996; Goff et al., 1997; Crosby et al., 1990). Specifically, Ok et al. (2005) found that when customers were satisfied with outcomes from a service recovery, the service recovery satisfaction positively transferred to overall satisfaction and evaluation of the service organization. However, considering that there have been a few empirical studies about the spillover effect of transaction-specific satisfaction on overall satisfaction, the finding of the present study provides important empirical evidence that supports the positive relationship between transaction-specific satisfaction and cumulative evaluative response (i.e., overall satisfaction) to the service organization.

Lastly, two types of behavioral intentions were examined in the present study—intention to continue the relationship with the service organization and intention to recommend to other customers. As expected, customer overall satisfaction with the service organization positively influences intention to continue the relationship and intention to recommend to other customers. These findings cohere with previous studies that have argued for the strong positive association between customer satisfaction and behavioral intention (Anderson and Sullivan, 1993; Oliver, 1993; Cronin and Taylor, 1994). Particularly, Martin et al. (2008) and Namkung and Jang (2007) demonstrate the positive impact of customer satisfaction on repurchasing intention in the service industry. These past studies have considered a general interaction situation where customers'

behaviors are not voluntary, whereas the current study considers a specific voluntary behavioral situation, COCBs, in the service context. Given the result that overall customer satisfaction is a direct and positive predictor of behavioral intentions in both situations, it implies that customer satisfaction has strong and positive influence on behavioral intentions not only in general situations but also in a specific situation related to COCBs.

***COCB Comprehensive Theoretical Model Including Antecedents and Consequences***

To provide further insight to support the relationship between antecedents and consequences of COCBs, the present study assesses the comprehensive theoretical model that includes both antecedents and consequences of COCBs simultaneously. Adding an additional two paths suggested by modification indices (CPGOJ → CPOS and CPGOJ → COCB motivation), the results support all of the proposed associations among constructs with the exception of four relationships—relationships between conscientiousness and COCB motivation, agreeableness and COCB motivation, and economic co-creation value and customer satisfaction with service outcome and frontline employees, respectively.

The findings are consistent with the results of the data analysis that was tested by dividing the three theoretical models (social exchange-based antecedents, personality-based antecedents, and consequences of COCBs). Consequently, the results reveal that customer prosocial and proactive personality traits may be more appropriate antecedents that lead customers to engage in COCBs as opposed to customer conscientiousness and agreeableness. Additionally, in the comprehensive theoretical model, economic co-creation value that customers perceive through their COCBs does not have a positive impact on customer satisfaction with service outcome and with frontline employees. In

contrast, individual and social co-creation values have a strong positive impact on customer satisfaction with both service outcomes and frontline employees. It also confirms that, in the COCB situation, customers' perceptions of individual and social co-creation values translate into their satisfaction with service outcomes and frontline employees; however, perceptions of economic co-creation value or monetary savings/rewards do not.

### ***Differences in COCB Comprehensive Theoretical Model among Three Service Groups***

Even though one of the objectives of this research is to establish the generalizability of COCB models in the service industry, a non-hypothesized, post-hoc analysis is conducted to confirm whether there are differences in the associations among constructs across three types of service groups<sup>5</sup>. The two antecedent models, social exchange and personality-based antecedent models, indicate that there are no differences in relationships among constructs across the three service groups. Interestingly, however, a group comparison testing of the COCB consequence model shows that there are some differences in this model across the three service groups. First, the multi-group analysis shows that there are differences in the impact of COCBs on social co-creation value among the three service groups. Even though the positive impact of COCBs on social co-creation value is confirmed for all three groups, the magnitude of impact is the weakest in Service Group 3. Given that Service Group 3 is characterized by the lowest level of

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<sup>5</sup> As mentioned in Chapter 4, Bowen's (1990) three-group taxonomy of services is employed to distinguish three types of service group. Service Group 1 includes service businesses characterized by high personal customization, high employee-customer contact, and directed at people (e.g., full-service restaurants, fine hotels, and medical services). Service Group 2 consists of the service category directed at things and characterized by low employee-customer contact and moderate customization (e.g., shoe repair, appliance repair, and banking services). Lastly, Service Group 3 includes service types that are perceived as directed at people, moderate employee-customer contact, and low customization (e.g., cafeterias, movie theaters, and airlines).

customization among the three groups, customers may have less opportunity to request customized service and/or suggest improvements with respect to service delivery. Thus, customers in Service Group 3 are less likely to perceive social co-creation value than those with higher levels of customization such as those in Service Groups 1 and 2. However, it is perplexing in that Service Group 3 maintains moderate levels of contact with service personnel. The interplay between levels of customization and contact and their relative effect of COCBs on social co-creation value needs further investigation.

Second, the positive impact of individual co-creation value on customer satisfaction with frontline employees is the strongest in Service Group 1, compared to Service Groups 2 and 3. Because Service Group 1 is typified by high customization and high levels of employee-customer contact, customers in this service group may have more opportunities to perform COCBs than those in the other two groups through helping service employees and conveying feedback to them. Also, due to the high service employee-customer contact, customers may feel their perceptions of value related to co-created achievements (individual co-creation value) through voluntary behaviors are more directly attributable to services employees in Service Group 1, in comparison to those in other service groups, which allow them to feel satisfied with those service frontline employees. Thus, the impact of individual co-creation value on customer satisfaction with frontline employees may be stronger in the highly customized and stronger level of employee-customer contact situation than those with lower customization opportunities and customer contacts.

Third, the positive impact of customer satisfaction with service outcome on the overall satisfaction with the service organization is the weakest in Service Group 2,

which is characterized as having low employee-customer contact, moderate customization, and is directed at things (e.g., rental services). As mentioned earlier, because high contact with customers allows service employees to better grasp a customer's needs (see Gremler and Gwinner's, 2008), service employees may provide more customized and improved service outcomes to the customer. Thus, customers in Service Groups 1 and 3 that have more contact with service employees are more likely to be satisfied with service outcome, resulting in satisfaction with service organization.

However, the results show that customer satisfaction with frontline employees positively influences overall satisfaction with the service organization for Service Group 2, whereas the relationship is weak for Service Group 3 and is not significant for Service Group 1. Because the services performed in Service Groups 1 and 3 may be more involving in that they are directed at people rather than things, as compared to Service Group 2, satisfaction with frontline employees is weakly or not attributed to the overall firm. To clarify these results, future research is warranted.

Lastly, the results of this study also confirm that there are differences in the positive relationships between customer satisfaction with the service organization and intention to recommend to other customers across the three service groups, showing the strongest impact in Service Group 2. This indicates that the effect of customer satisfaction on intention to recommend to others may be more important for service organizations that are directed at things than for service organizations directed at people. Perhaps, customers of services directed at things are more confident that the services they received will extend to the things of others in that they are possibly perceived as more standardized. Reasons for these results need to be explored in future research.



## **Implications**

### **Theoretical Implications**

The current research contributes to the literature in the several notable ways. First of all, adapting the concepts and theories from other disciplines such as organizational and social psychology allowed this study to facilitate the development of the conceptual model to explore antecedents and consequences of COCBs. Providing a crucial contribution as interdisciplinary research, this study attempted to investigate how social exchange and personality-based antecedents influence COCB motivation, which leads customers to participate in COCBs. As another contribution, the present research simultaneously examined potential consequences of COCBs including customer co-creation value, customer satisfaction, and behavioral intentions. Because previous studies have considered COCBs as behavioral intention or future behaviors that customers may perform, based on emotional (e.g., customer's affect) or cognitive perceptions (e.g., perceived justice, perceived support, affective commitment, and loyalty), COCBs may have been focused as endogenous variables, which are affected by other factors in the theoretical models (Yi and Gong, 2008; Benttencourt, 1997; Bove et al., 2009). However, with the theoretical argument that COCBs are key consumer behaviors that co-create values, some researchers have recently attempted to empirically explore the consequences of COCBs, focusing on customer satisfaction (Chan et al., 2010), perceived value (Dong et al., 2008), and loyalty (Auh et al., 2007). Despite these efforts, there is no known research that investigates the antecedents and consequences of COCBs at the same time. From this perspective, this study significantly contributes to the marketing

literature by depicting the overall picture regarding the antecedents and consequences of COCBs.

In addition, the current study focuses on *actual* COCBs. Data collected were related to beneficial behaviors that respondents actually performed for their service organizations in the past. As previous research has mainly focused on intention or willingness of COCBs, this contribution is quite meaningful (Bove et al., 2009). Measurement of actual COCBs allows this study not only to investigate consequences of COCBs, including co-creation value perception, satisfaction, and behavioral intentions, but also to confirm the extent and feasibility of COCBs in the real marketplace. Researchers have also called for studies that replicate and validate existing scale items of COCBs due to a lack of validity confirmation (Garma and Bove, 2011; Yi and Gong, 2013). By measuring actual COCBs, the current research attempts to validate existing scale items of COCBs, many of which are based on intention to perform COCBs.

Second, the present research introduces two types of antecedents, i.e., social exchange-and personality-based antecedents, of COCB motivation which were found to positively influence COCBs. The previous research in employees' OCBs has mainly conceptualized antecedents based on social exchange theory (i.e., perception of organizational support, perception of organizational justice, and affective commitment) as predictors of employees' OCBs. By adapting the concept of OCBs to COCBs, this study finds the positive impact of social exchange-based antecedents on COCB motivation, resulting in COCBs. Hence, this study supports the argument of previous studies that consumers can be characterized as co-producers or partial employees who contribute

inputs much like employees and who create value for their service organization (Bowen et al., 2000; Vargo and Lusch, 2004a).

Compared to social exchange-based antecedents, however, personality factors have received less attention as antecedents of COCBs, despite the conceptual argument and empirical support pertaining to the importance and impact of personality traits on individual voluntary behaviors such as COCBs (Podsakoff et al., 2000; Johnson, 2001). Given the lack of attention to personality traits, this study conceptualized four types of personality traits as antecedents of COCBs: *conscientiousness*, *agreeableness*, *prosocial personality*, and *proactive personality*. The empirical test of this study demonstrates that prosocial and proactive personality traits are important factors that lead customers to engage in COCBs. However, the results do not support previous research that confirms the positive influence of conscientiousness and agreeableness on employees' OCBs. As mentioned earlier, one explanation may be that, because conscientiousness tends to describe the more impersonal characteristics, such as punctuality, rule compliance, productive use of time, and care for organizational property, which are related to work performance, employees' conscientiousness has a positive impact on their OCBs, but customers' conscientiousness may not be related to COCB motivation. Moreover, agreeableness that describes the ability to "get along with" others has a positive impact on employees' OCBs, but does not have the same impact on COCB motivation. This difference may be because employees have more opportunities to be with their coworkers than customers. Another explanation may be provided by the data analysis. In the data analysis, when prosocial and proactive personality traits were not included in the model, customer conscientiousness and agreeableness significantly predicted COCB motivation.

However, in the model that included all four of the personality traits (i.e., conscientiousness, agreeableness, prosocial personality, and proactive personality traits), conscientiousness and agreeableness were rendered insignificant and superseded by the significance of prosocial and proactive personality traits. This result infers that more specific personality traits, such as prosocial and proactive personality traits, may be better predictors of COCB motivation than broader-based personality traits, e.g., conscientiousness and agreeableness. These findings contribute to the literature regarding antecedents of COCBs by supplementing the paucity of empirical research and warrant further investigation.

Third, the study conceptualizes COCB motivation as a mediator that links two types of antecedents and COCBs. To date, no known research has investigated the various reasons or motivations that lead customers to participate in COCBs. This lack is of significant concern because individuals' motivations have been identified as crucial to understanding and predicting their behaviors, such as customer shopping motivation (Westbrook and Black, 1985), voting behavior motivation (Glasford, 2008), and employees' motivation to participate in safety performance (Griffin and Neal, 2000). With an effort to conceptualize COCB motivation, this study also develops and validates measurement instruments of COCB motivation through a mixed method approach, a combination of qualitative and empirical research. Research findings confirm that COCB motivation is a multidimensional construct that encompasses a variety of motivations, thoughts, desires, and beliefs that lead customers to voluntarily participate in the tasks of the service provider. Additionally, this study shows that COCB motivation has the nature of a second-order factor, by introducing four separate dimensions that represent

characteristics of COCB motivation: *Self-enhancement*, *Personal principles*, *Desire to support the service organization*, and *Perception of the service organization's past performance*. These findings also appear similarity with some dimensions of customers' shopping motivation, argued by Westbrook and Black (1985), such as affiliation, anticipated utility, and stimulation. Affiliation refers to the motivation to affiliate directly or indirectly with other individuals involved in marketplace situation as affiliation corresponds with social dimensions of COCB motivation (i.e., *Desire to support the service organization*, *Perception of the service organization's past performance*). Anticipated utility describes shopping motivation linked to expectation of benefits or hedonic states provided by the product or shopping activities, and stimulation denotes motivation to seek novel and interesting stimuli from the retail environment. These two shopping motivations are similar to *self-enhancement* of COCB motivation. Thus, comparison with scale items of shopping motivation may provide meaningful findings to refine the newly-developed scale items of COCB motivation.

In addition to the scale development that measures COCB motivation, this study ascertains the potential that there are additional items to measure COCBs beyond the existing scale items (Groth, 2005; Yi and Gong, 2013). With combined measures from both the existing and items newly-developed through the mixed method approach, the current study confirms four dimensions—*feedback*, *advocacy*, *helping*, and *tolerance*—of COCBs, dimensions that have recently been developed by researchers (see Yi and Gong, 2013). More specifically, this study finds three additional items that represent three of four dimensions of COCBs—helping, feedback, and tolerance. These additional scale items regarding COCB measurement provide more insightful and deeper understanding

of COCBs. Even though scale items that measure the advocacy dimension may be perceived as somewhat similar to those of intention to recommend to other customers, one of the dependent variables of this study, data analysis includes that discriminant validity exists between the two constructs. Conceptually, they are different in that the advocacy measurement is based on recommending/encouraging behaviors of the past that were implemented in order to help the service organization, whereas scale items regarding intention to recommend to other customers measure respondents' willingness or intention of future behaviors based on value received from COCB experiences. Moreover, this study is based on the service context by choosing three categories of services (see Bowen, 1990). With the evidence that there are no differences in both COCB and COCB motivation across three service industries, the result demonstrates that the scales measuring COCB and COCB motivation as developed by this study are generalizable. Thus, the measurement instrument is applicable to various service industries.

The fourth theoretical implication of this study is to confirm customer co-creation value as a crucial consequence of COCBs. Even though many researchers have argued that COCBs are customers' key actions or behaviors that co-create value for customers as well as marketers, existing research that establishes empirical support has been limited thus far. Filling this research gap, the findings of this study provide empirical evidence that COCBs have a strong positive impact on customer co-creation value. Specifically, this study introduces three types of customer co-creation value—economic, individual, and social co-creation value—as co-creation values that customers perceive through their COCBs. These interesting findings make important contributions to the marketing

literature, wherein rich theoretical and empirical support pertaining to the impact of COCBs on value co-creation is required.

Fifth, this study demonstrates customer satisfaction as a positive consequence of COCBs, conceptualizing it into two aspects: transaction-specific and overall satisfaction. Providing empirical evidence, the feasibility of the theoretical rationale with regard to the spillover effect of transaction-specific satisfaction (satisfaction with service outcome and frontline employees) on overall satisfaction is also confirmed. Thus, customer satisfaction with service outcome and frontline employees, which are perceived through COCBs, positively influences overall satisfaction with the service organization. In addition, according to the post-hoc analysis, the impact of transaction-specific satisfaction on overall satisfaction differs across service organization types. Specifically, Service Group 2, the service businesses directed at things, show the weakest influence of customer satisfaction with service outcomes on overall satisfaction with the service organization, but the strongest impact of customer satisfaction with frontline employees on overall satisfaction with the service organization. This finding implies that the magnitude of the impact of customer satisfaction with service outcomes and customer satisfaction with frontline employees on customer satisfaction with the service organization, respectively, may depend on the target of service (object vs. person) and the degree of customization and contact with customers inherent in that service organization. Thus, the finding contributes to the notion that, depending on the types of service businesses, overall satisfaction toward a particular service organization may be influenced by a specific kind of transaction that the service organization provides.

Finally, the current study suggests that customers hold intentions to continue relationships with their service organizations and intentions to recommend those service organizations to others when they perceive specific types of co-created value and satisfaction through their COCB experiences. These findings also imply that these types of customer behavioral intentions are values, which they have co-created through voluntary behaviors performed by their customers, for the service organization. Obviously, having customers who are willing to continue to visit and who are willing to spread positive words to other customers is a more effective and cost conscious way to increase the profits and sales of the service organization compared to attracting new customers through time-consuming and expensive advertisements and promotions.

### **Managerial Implications**

The current study elicits important practical implications. First, the current study provides marketers enhanced understanding concerning the factors that lead customers to implement COCBs. In other words, marketers need to know the types of factors that lead customers to participate in COCBs in order to co-create value with their customers. Specifically, this study helps marketers understand how customers' perceptions of organizational justice and support plays a role in the inducement of voluntary behaviors from their customers. As a way to improve customers' perceptions of organizational justice and support, marketers may provide a marketing program related to customer relationship management and/or educate their employees to treat customers impartially and supportively. They should be careful to inform their customers the ways in which they support them and attempt to treat them in a fair manner. Also, understanding the role of personality traits allows marketers not only to segment their target markets but to



also understand their target customers' attitudes and behaviors. Considering customers' attitudinal perceptions based on prior interaction with the service organization and individual personality traits will empower service marketers to establish effective marketing strategies to encourage COCBs to co-create value for both customers and marketers alike.

More specifically, through knowledge of COCB motivation, marketers may build appropriate marketing strategies by understanding the overall picture regarding why customers are willing to participate in COCBs that benefit their service organization. For example, customers may propose constructive ideas that help the service organization to improve service quality and/or reduce service delivery time because they perceive those activities will enhance their personal growth or advancement or self-enhancement.

Marketers can use subtle strategies to emphasize how COCBs can aid personal growth and feelings of achievement. Providing "testimonials" of customers who have performed COCBs and how those behaviors aided their growth is a potential strategy.

Simultaneously, through their participating behaviors, customers can learn more about the service organization. This can be a way to co-create value for not only customers but also for marketers. In addition, in order to build effective marketing strategies to induce COCBs, marketers may segment their target customers based on their respective types of COCB motivation. Some customers, for instance, may be motivated by self-enhancement, whereas others are motivated by perception of the service provider's past performance. Performing cluster analyses to identify these unique consumer segments may be helpful to marketers in building more specific and effective marketing strategies because they target customer segments that have particular motivations.

Second, the findings may enlighten marketers pertaining to consideration and applications of the differential effect of transaction-specific satisfaction on overall satisfaction across types of service organization. Specifically, service businesses directed at things (Service Group 2) have the weakest impact of customer satisfaction with service outcomes on overall satisfaction with the service organization, but they show the strongest impact of customer satisfaction with frontline employees on overall satisfaction with the service organization. Considering these findings, marketers in each type of service organization may need to design marketing strategies to maximize customer overall satisfaction by properly allocating marketing resources directed at service outcomes and frontline employees. For example, service organizations in Service Groups 1 and 3 can establish their marketing strategies by focusing on how they satisfy customers through service outcomes, whereas service organizations in Service Group 2 can utilize marketing strategies that satisfy customers through well-trained service employees.

Third, even though this study was conducted in the service industry, marketers in product-domain industries can apply this study to their businesses. Basically, product-domain companies include those that include face-to-face interaction with customers and provide customer service programs. Similar to customers in the service industry, customers in the product-domain area also have opportunities to participate in a company's activities, such as suggesting ideas for new product features, helping other customers use a product through posting videos, and recommending the product to others. Recently, Datacrowd, Cincinnati-based marketing analysts, introduced Shelfie, a new application that enables shoppers to alert supermarkets with specific information about

when, where, and which products are out of stock. When shoppers report empty shelves, they are offered reward points that can be redeemed in the store. This is a good example of the kind of marketing strategies that induce COCBs and co-create value through the COCBs in product-domain companies or retailers.

Fourth, online marketers may also consider the findings of this research. Even though the present study was focused on the offline service context, it is possible that the findings apply to the online context. For instance, when customers have positive perceptions through a past experience with a particular online retailer/service organization, they may be willing to help the online retailer/service organization. More specifically, scales of COCBs, COCB motivation, and customer co-creation value, developed through this study, may be compatible with the online context. It makes sense that voluntary participating behaviors of online customers are motivated by desires to feel satisfaction and accomplishment. In addition, online customers may perceive various values such as economic, individual, and social co-creation value and satisfaction when they perform COCBs. However, COCBs in the online context may be somewhat different from those in the offline context, given different characteristics of the two contexts. For instance, it may be more difficult for online customers to help other customers in the same ways that they do in a physical setting (e.g., helping customers carry heavy belongings) due to the fact that they are not in close physical proximity to one another. Therefore, research pertaining to COCBs in the online milieu is also worth pursuing and may prove to be a major contribution to the literature.

### **Limitations and Future Research**

Even though this study supplies vital and insightful contributions to both academic research and practical managers, there are several limitations and suggestions for future research. First, this research encompasses data collected from customers of various service types in order to establish the generalizability of the measure instrument and the study's findings. However, the study context is limited to the face-to-face service industry. Replication and extension conducted in other industries such as the product-domain industry would allow the scale items to build stronger generalizability. Future research should also consider replicating and/or applying this research across various cultures to provide more concrete understanding of the applicability of the present study. In addition, investigating the moderating effect of cultural values such as individualism/collectivism and power distance on COCBs across cultures would be also a crucial and interesting contribution to the literature.

Second, this study tested only two personality traits (conscientiousness and agreeableness) out of the Big Five personality traits (conscientiousness, extraversion, agreeableness, neuroticism, and openness to experience). However, some studies that address different research contexts (e.g., employee-employer relationships in the organization) and/or include different constructs such as consumers' affect or emotion have also included the remaining three of Big Five personality traits: extraversion, neuroticism, and openness to experience (see Organ, 1994; McCrae and Costa, 1991). Thus, future research that investigates the relationship among other constructs and COCBs and/or considers other research contexts could adapt different personality traits other than conscientiousness and agreeableness.

Third, this study investigated only customer satisfaction as customers' responses of co-creation value perception through COCBs. Consequently, it is possible that future research considers other customers' responses such as trust and loyalty because customers may develop trust and/or loyalty toward the service organization for which they have performed COCBs when they perceive co-creation value. Even though the current study provides deeper insight pertaining to the spillover effect of transaction-specific satisfaction on overall satisfaction, integrating other constructs such as trust and loyalty would contribute to richer and more insightful research.

Fourth, because the length of relationship and/or contact frequency with the service organization did not show differences among the three types of service organization, their impact was not assessed. However, in future research, these two constructs could be investigated as moderators, which may influence the effect of social exchange-based antecedents on COCB motivation and COCBs. Considering that this study focused on COCBs for offline service organizations with which customers have interacted in the past, customers' motivations and willingness to perform COCBs may differ depending on how long they have interacted with their service organization and/or how frequently they visit the service organization.

Lastly, with some previous investigations of scale development pertaining to COCBs and customer co-creation value (Groth, 2005; Yi and Gong, 2013; Chan et al., 2010), the current study is an especially important effort at scale development that measures COCBs, COCB motivation, and customer co-creation value. Moreover, this is the first investigation in developing measurement items of COCB motivation. Further research should be conducted to confirm the generalizability of the scale items,

replicating this research with various samples and in various contexts. Additionally, incorporating theoretically-related constructs in empirical models would allow not only researchers to generalize but also to further validate the scale items.

## APPENDIX A

### OPEN-ENDED QUESTIONNAIRE (QUALITATIVE STUDY)

#### CUSTOMERS' VOLUNTARY AND DISCRETIONARY BEHAVIORS SURVEY

I am a doctoral candidate at the University of Arizona, who is conducting a research study as part of my dissertation, to investigate customers' voluntary and discretionary behaviors in the face-to-face service contexts. I would like to better understand your behaviors and experiences as a customer of a service sector and a particular business within that service sector. I invite you to participate voluntarily in this research project.

To be eligible to participate, you must be 18 years or older and have had previous experience with a particular service business in the past six months. In this survey, ***"service sector" refers to "a business type that provides intangible private service to customers as its offerings, not a tangible good."***

Examples of service sectors are medical services and restaurants. We will also ask you about your experiences with a service business (e.g., Denny's) within the service (e.g., restaurant) sector.

Please carefully read the instructions and complete the questionnaire, which should take approximately 15-20 minutes of your time. There are no right or wrong answers. I am merely interested in your perceptions and behaviors.

The data will be used only in aggregate form and published in scholarly and educational materials. You will not be identified in any reports or publications resulting from the study. I expect this project will not only help you understand your own role as a valuable customer but also allow you to potentially receive better service from service businesses in the future. **When you participate in survey with your detailed responses, you will be given an opportunity to enter a drawing to earn one of four \$25 gift cards.** In order to participate in the drawing, you need to provide your email address and name at the end of this survey. Your email address and name will be stored in a file separate from the survey data. In addition, **you (students enrolled in XXX) who pass along the survey questionnaire will earn 2 extra points, up to 10 bonus points (e.g., 1 person = 2 points, 2 people = 4 points, etc.) toward their class grade.** However, if you do not want to participate in the survey to earn extra class points, you will be provided an alternative option such as activities related to the class curriculum.

You can obtain further information from the principal investigator, Laee Choi, Ph.D. Candidate, Division of Retailing and Consumer Sciences, at (520) 621-9205 or Dr. Sherry Lotz, Associate Professor, at (520) 621-3063. If you have questions concerning your rights as a research subject, you may call the University of Arizona Human Subjects Protection Program office (HSPP) at (520) 626-6721 or visit HSPP website at [www.orcr.arizona.edu/hspp](http://www.orcr.arizona.edu/hspp).

Thank you for your time and participation!

☐ I have read the participant's disclosure and agree with all the terms and conditions. I acknowledge that by completing the survey, I am giving permission for the investigator to use my information for research purposes.

**Please indicate your age:**

☐ Under age 18 [*Skip to End*]

☐ 18 years or older

## - PART 1 -

## Your Experience with a Service Business

In PART 1, we are interested in your experiences with a particular service business in cases where you have had **face-to-face interactions** with service employees. Therefore, we are NOT interested in your online service experiences. Please review the list of service sectors below and select one in which you have frequently participated as a customer in the past six months.

Service Sector**Group 1**

- Beauty salons
- Full-service restaurants
- Barber shops
- Body massage
- Fine hotels
- Accounting and finances
- Counseling
- Nail services
- Legal services
- Real estate agencies
- Fitness club with personal trainers
- Child day care
- Hospitals, medical, and health care
- Dental care

**Group 2**

- Shoe repair
- Banking services
- Pest control
- Pool maintenance
- Photofinishing services
- Computer repair
- Lawn maintenance
- Appliance repair
- Dry cleaning and Laundry
- Auto repair and maintenance
- Plumbing services
- Veterinarian care
- Carpet cleaning
- House cleaning

**Group 3**

- Land-phone and Cable services
- Health club (Fitness club)
- Copying/Printing services
- Airlines
- Movie Theater
- Express mail services
- Amusement and theme park
- Budget hotel
- Car rental services
- Cafeterias

Please choose **ONE** of the service sectors listed above that *you have frequently patronized in the past six months and answer the following questions:*

**Q1.** Which service sector (list only ONE) have you frequently patronized in the past six months (e.g., restaurants, banking services, or airlines)? \_\_\_\_\_

**Q2.** What is the name of *ONE service business* (related to the service sector mentioned in Q1) you have frequently patronized in the past six months (e.g., Denny's, Chase, or United Airlines)? \_\_\_\_\_

**Q3.** In the past six months, how frequently have you patronized the service business you indicated in Q2?

- |                            |                            |                            |                            |                            |                            |                            |
|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|
| Never                      | Once in six months         | Twice in six months        | Bi-monthly                 | Once a month               | Bi-weekly                  | Weekly or more frequently  |
| <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 4 | <input type="checkbox"/> 5 | <input type="checkbox"/> 6 | <input type="checkbox"/> 7 |

**Q4.** For what time period have you patronized the service business you indicated in Q2?

- |                            |                            |                            |                            |                            |                            |                            |
|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|
| 1 month or less            | 1 month ~ 3 months         | 3 months ~ 6 months        | 6 months ~ 1 year          | 1 year ~ 3 years           | 3 years ~ 5 years          | 5 years or more            |
| <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 4 | <input type="checkbox"/> 5 | <input type="checkbox"/> 6 | <input type="checkbox"/> 7 |



- PART 2 -  
Your Voluntary and Discretionary Behaviors



Please reflect on the service business (e.g., Denny's) that you indicated in PART 1 (Q2). Please thoroughly and carefully read the following statements and then answer the following questions by thinking of that service business.

We are now interested in finding out about ***your voluntary and discretionary behaviors which may have benefited the service business*** you indicated in PART 1 (Q2). Please read below for clarification about voluntary and discretionary behaviors:

In general, when customers patronize a service business, customers may perform ***voluntary and discretionary behaviors that are particularly helpful, kind, considerate or thoughtful, but are NOT REQUIRED to obtain successful service***. These voluntary participation behaviors may include ***collaborating behaviors with the service business***.

Here are several examples (there are many others!) of how customers *voluntarily* participate in tasks of the service business during/after the service:

- “When I had a useful idea on how to improve service, I let the service business and/or employees know.”
- “I encouraged friends and relatives to use the service business.”
- “I helped other customers when they seemed to have problems.”
- “When the employee made a mistake during service delivery, I was patient and waited for the employee to recover from the mistake”

**For Q5 and Q6: Please think of the service business that you mentioned in PART 1 (Q2).**

**Q5.** Have you ever performed voluntary and discretionary behaviors that have benefited your service business?

☐ Yes      (Answer Q5-1 below)                      ☐ No      (Skip Q5-1 and answer Q6)

**Q5-1.** What were the voluntary and discretionary behaviors you performed for the service business? Please describe these behaviors in as much detail as possible.

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**Q6.** If you have an opportunity to perform voluntary and discretionary behaviors ***in a future interaction with the service business you indicated***, what are the voluntary and discretionary behaviors that you would/could perform for the service business (other than the abovementioned examples)? In as much detail as possible, please describe those behaviors below.

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**For Q7: Please recall any recent incident of voluntary and discretionary behaviors that you have observed and/or heard from others. This question is NOT restricted to the service business you indicated in the prior part.**

**Q7.** Have you ever observed and/or heard about voluntary and discretionary behaviors performed by other customers, including your friends, relatives, others you do or do not know, the media, etc.?

☐ Yes (Answer Q7-1 below) ☐ No (Skip Q7-1 and go to PART 3)

**Q7-1.** What are the voluntary and discretionary behaviors you have observed and/or heard from others/the media? Please describe these behaviors in as much detail as possible.

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### - PART 3 -

#### Your Voluntary and Discretionary Behaviors: Tell Us Why



We are now interested in factors that *motivate* customers to perform voluntary and discretionary acts for the service business. In other words, we are curious about the ***reasons, motivations, and inspirations for these voluntary kind and thoughtful acts toward the service business. In addition, we are interested in beliefs or thoughts*** customers hold about their *voluntarily* behaviors.

**Here are some examples (there are many others!) of how customers describe their ‘motivations, beliefs, or thoughts’ that lead to their voluntary participation behaviors:**

- “I felt that it is important to encourage the service business and/or employees to use the practices I know.”
- “I believed that it is worthwhile to volunteer for the tasks related to the service business.”
- “I thought that it is worthwhile to put extra effort into maintaining the offering of the service business.”

If you performed one or more voluntary and discretionary behaviors for the service business in the past, please answer **Q8 below**.

If you did not perform at least one voluntary and discretionary behaviors for the service business in the past, please skip Q8 and, instead, answer **Q9 below**.

**Q8.** Please explain, in detail, the ***reasons, motivations, beliefs, and/or thoughts, etc.***, that have led you to perform voluntary and discretionary behaviors for the service business you have indicated.

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**Q9.** If you have an opportunity in the future to perform voluntary and discretionary behaviors for the service business you have indicated, what are the ***reasons, motivations, beliefs, and/or thoughts, etc.***, that would lead you to perform these behaviors for the service business?

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- PART 4 -

**Voluntary and Discretionary Behaviors: Your Perceptions of Benefits/Outcomes**




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Customers can perceive **positive outcomes and/or benefits** when they perform voluntary and discretionary behaviors (e.g., helping service employees and/or other customers, suggesting good ideas or skills, and providing feedback). In other words, it is possible that customers' voluntary and discretionary behaviors provide positive outcomes and/or benefits to customers.

These positive outcomes or benefits can be tangible (e.g., the service business sent me a coupon to thank me for my suggestion) and/or intangible (e.g., it makes me feel good).

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If you performed one or more voluntary and discretionary behaviors for the service business in the past, please answer **Q10 below**.

If you did not perform at least one voluntary and discretionary behaviors for the service business in the past, please skip Q10 and, instead, answer **Q11 below**.

**Q10.** What are **positive outcomes and/or benefits** that YOU gained (we are NOT interested in the outcomes/benefits for the service business) when YOU voluntarily participated in tasks for the service business? (After answering Q10, skip Q11 and answer Q12)

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**Q11.** Please imagine that you will voluntarily participate in activities for the service business you previously mentioned. What are **positive outcomes and/or benefits** that you would expect to gain from your voluntary and discretionary behaviors?

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Considering your answers in the prior section, we would like to understand about **specific benefits/outcomes** customers can receive through their voluntary and discretionary behaviors for the service business.

Your answers may or may not overlap, somewhat, with answers that you have already provided. Do not be concerned about it.

**1. My Economic Benefits/Outcomes**

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Economic benefits and/or outcomes refer to **financial, physical, and mental rewards that customers may obtain from their efforts to provide voluntary and discretionary acts for the service business**. Examples of Economic benefits and/or outcomes are their ability to receive greater **efficiency, service quality, customized service, cost reductions, and time savings** from their service business.

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If you performed one or more voluntary and discretionary behaviors for the service business in the past, please answer **Q12 below**.

If you did not perform at least one voluntary and discretionary behaviors for the service business in the past, please skip Q12 and, instead, answer **Q13 below**.

**Q12.** Given the description above, what **Economic benefits and/or outcomes** did you receive from your voluntary and discretionary behaviors for the service business? (After answering Q12, skip Q13 and proceed to "2. My Inner Self Benefits/Outcomes").

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**Q13.** Given the description above and imagining you would voluntarily participate in tasks for the previously-mentioned service business, what ***Economic benefits and/or outcomes*** would you expect to receive from your voluntary and discretionary behaviors?

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## 2. My “Inner Self” Benefits/Outcomes

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“Inner Self” benefits/outcomes are defined as **1) positive feelings such as a sense of goal achievement through accomplishment, pleasure, prestige, and 2) personal growth from engaging in voluntary and discretionary behaviors.**

Examples of “Inner Self” benefits/outcomes are:

### 1) Positive Feelings

- Experiencing enjoyment from accomplishing specific tasks (e.g., solving the problem and generating an opinion or idea);
- Feeling pride due to suggesting a constructive and effective idea;
- Feeling a sense of achievement and enjoyment, in that their participation positively influences the service business;
- Enjoying a new experience; and

### 2) Personal Growth

- Having opportunities to learn about new trends, innovations, and information or skills;
  - Learning how the service business deals with customers and the tasks.
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If you performed one or more voluntary and discretionary behaviors for the service business in the past, please answer **Q14 below**.

If you did not perform at least one voluntary and discretionary behaviors for the service business in the past, please skip Q14 and, instead, answer **Q15 below**.

**Q14.** Given the description above, what ***“Inner Self” benefits and/or outcomes*** have you received from your voluntary and discretionary behaviors for the service business? (After answering Q14, skip Q15 and proceed to “3. Relationship/Involvement” Benefits/Outcomes”).

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**Q15.** Given the description above and imagining you would voluntarily participate in tasks for the previously-mentioned service business, what ***“Inner-Self” benefits and/or outcomes*** would you expect to receive from your voluntary and discretionary behaviors?

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## 3. “Relationship/Involvement” Benefits/Outcomes

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“Relationship/Involvement” benefits/outcomes refer to **1) positive feelings from enhanced relationships with a service business and/or its employees**, including the enjoyment of social interaction with employees, and/or **2) feelings of affiliation or involvement** with the service business and/or employees much as one of the service business’ good employee might do.

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If you performed one or more voluntary and discretionary behaviors for the service business in the past, please answer **Q16 below**.

If you did not perform at least one voluntary and discretionary behaviors for the service business in the past, please skip Q16 and, instead, answer **Q17 below**.

**Q16.** Given the description above, what ***“Relationship/Involvement” benefits and/or outcomes*** did you receive from your voluntary and discretionary behaviors for the service business? (After answering Q16, skip Q17 and proceed to PART 5).

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**Q17.** Given the description above and imagining you would voluntarily participate in tasks for the previously-mentioned service business, what ***“Relationship/Involvement” benefits and/or outcomes*** would you expect to receive from your voluntary and discretionary behaviors?

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### - PART 5 - Demographic Information

**Q18.** Your gender is:

- ☐ Male (1) ☐ Female (0)

**Q19.** Your age is:

- |                                    |                                    |  |
|------------------------------------|------------------------------------|--|
| <input type="checkbox"/> 18~24 (1) | <input type="checkbox"/> 25~29 (2) | <input type="checkbox"/> 30~34 (3)       |
| <input type="checkbox"/> 35~39 (4) | <input type="checkbox"/> 40~44 (5) | <input type="checkbox"/> 45~49 (6)       |
| <input type="checkbox"/> 50~54 (7) | <input type="checkbox"/> 55~59 (8) | <input type="checkbox"/> 60 and over (9) |

**Q20.** Your current marital status is:

- |                                       |                                      |
|---------------------------------------|--------------------------------------|
| <input type="checkbox"/> Single (1)   | <input type="checkbox"/> Widowed (2) |
| <input type="checkbox"/> Divorced (3) | <input type="checkbox"/> Married (4) |

**Q21.** You ethnicity is:

- |  |   |
|--|---|
| <input type="checkbox"/> Caucasian (1)             | <input type="checkbox"/> Asian/Asian-American (2) |
| <input type="checkbox"/> African-American (3)      | <input type="checkbox"/> Pacific Islander (4)     |
| <input type="checkbox"/> Hispanic-American (5)     | <input type="checkbox"/> Native American (6)      |
| <input type="checkbox"/> Other, please specify (7) | <hr/>   |

**Q22.** Your annual family household income is:

- |   |   |   |
|---|---|---|
| <input type="checkbox"/> Less than \$10,000 (1)   | <input type="checkbox"/> \$10,000 to \$29,999 (2) | <input type="checkbox"/> \$30,000 to \$49,999 (3) |
| <input type="checkbox"/> \$50,000 to \$69,999 (4) | <input type="checkbox"/> \$70,000 to \$89,999 (5) | <input type="checkbox"/> \$90,000 or more (6)     |

**Q23.** Your education is:

- |  |  |
|--|--|
| <input type="checkbox"/> Some high school (1)      | <input type="checkbox"/> Bachelor's degree (5) |
| <input type="checkbox"/> High school graduate (2)  | <input type="checkbox"/> Master's degree (6)   |
| <input type="checkbox"/> Some college credit (3)   | <input type="checkbox"/> Professional (7)      |
| <input type="checkbox"/> Associate degree (4)      | <input type="checkbox"/> Doctorate degree (8)  |
| <input type="checkbox"/> Other, please specify (9) | <hr/>  |

**Q24.** Your current occupation is:

- |  |   |
|--|---|
| <input type="checkbox"/> Undergraduate student (1)           | <input type="checkbox"/> Graduate student (6)             |
| <input type="checkbox"/> Laborer (2)                         | <input type="checkbox"/> Administrative personnel (7)     |
| <input type="checkbox"/> Machine operator/service worker (3) | <input type="checkbox"/> Manager (8)                      |
| <input type="checkbox"/> Craftsman (4)                       | <input type="checkbox"/> Professional (9)                 |
| <input type="checkbox"/> Clerical or sales worker (5)        | <input type="checkbox"/> Other, please specify (10) _____ |

**Q25.** My state of residence is:

- |  |  |  |
|--|--|--|
| <input type="checkbox"/> Alabama (1)     | <input type="checkbox"/> Louisiana (18)      | <input type="checkbox"/> Ohio (35)           |
| <input type="checkbox"/> Alaska (2)      | <input type="checkbox"/> Maine (19)          | <input type="checkbox"/> Oklahoma (36)       |
| <input type="checkbox"/> Arizona (3)     | <input type="checkbox"/> Maryland (20)       | <input type="checkbox"/> Oregon (37)         |
| <input type="checkbox"/> Arkansas (4)    | <input type="checkbox"/> Massachusetts (21)  | <input type="checkbox"/> Pennsylvania (38)   |
| <input type="checkbox"/> California (5)  | <input type="checkbox"/> Michigan (22)       | <input type="checkbox"/> Rhode Island (39)   |
| <input type="checkbox"/> Colorado (6)    | <input type="checkbox"/> Minnesota (23)      | <input type="checkbox"/> South Carolina (40) |
| <input type="checkbox"/> Connecticut (7) | <input type="checkbox"/> Mississippi (24)    | <input type="checkbox"/> South Dakota (41)   |
| <input type="checkbox"/> Delaware (8)    | <input type="checkbox"/> Missouri (25)       | <input type="checkbox"/> Tennessee (42)      |
| <input type="checkbox"/> Florida (9)     | <input type="checkbox"/> Montana (26)        | <input type="checkbox"/> Texas (43)          |
| <input type="checkbox"/> Georgia (10)    | <input type="checkbox"/> Nebraska (27)       | <input type="checkbox"/> Utah (44)           |
| <input type="checkbox"/> Hawaii (11)     | <input type="checkbox"/> Nevada (28)         | <input type="checkbox"/> Vermont (45)        |
| <input type="checkbox"/> Idaho (12)      | <input type="checkbox"/> New Hampshire (29)  | <input type="checkbox"/> Virginia (46)       |
| <input type="checkbox"/> Illinois (13)   | <input type="checkbox"/> New Jersey (30)     | <input type="checkbox"/> Washington (47)     |
| <input type="checkbox"/> Indiana (14)    | <input type="checkbox"/> New Mexico (31)     | <input type="checkbox"/> West Virginia (48)  |
| <input type="checkbox"/> Iowa (15)       | <input type="checkbox"/> New York (32)       | <input type="checkbox"/> Wisconsin (49)      |
| <input type="checkbox"/> Kansas (16)     | <input type="checkbox"/> North Carolina (33) | <input type="checkbox"/> Wyoming (50)        |
| <input type="checkbox"/> Kentucky (17)   | <input type="checkbox"/> North Dakota (34)   |  |

**Thank you for your participation!**

## APPENDIX B

### QUESTIONNAIRE (QUANTITATIVE STUDY)

#### CUSTOMERS' VOLUNTARY AND DISCRETIONARY BEHAVIORS SURVEY

You are being invited to participate in a project pertaining to customers' voluntary and discretionary behaviors for service businesses they have patronized. The purpose of this project is to understand reasons for customers' voluntary and discretionary behaviors and the value they perceive from those behaviors.

To be eligible to participate, you must be 18 years or older and have previous experience patronizing a service business. Please carefully read the instructions and complete the questionnaire, which should take approximately 25-30 minutes of your time.

There is no risk to you for your participation. We recognize that your participation in the survey is voluntary and appreciate you taking the time to complete it. You may decide not to begin or to stop the survey at any time. The only cost to you is your time spent in filling out the survey. Additionally, when you complete the survey, you will receive the cumulative points that you can redeem for merchandise and/or services.

The data will be used only in aggregate format and published in scholarly and educational materials. You will not be identified in any reports or publications resulting from the study. Representatives of regulatory agencies (including The University of Arizona Human Subjects Protection Program) may access the data collected. If that occurs, a copy of the information may be provided to them. However, any personal identifiable information, such as your name or email address, will be removed before the information is released. All personally identifying information will be stored separate from your survey responses. Only research team members who have received certified training in Human Subjects Research protocols will be allowed access to this data. This information will only be used to ensure that you receive your compensation for completing the survey and to link to your previous survey responses.

You can obtain further information from the principal investigator, Laee Choi, Ph.D. candidate, at (520) 620-9205 or Dr. Sherry Lotz, Associate Professor, at (520) 621-3063. For questions about your rights as a participant in this study or to discuss other study-related concerns or complaints with someone who is not part of the research team, you may contact the Human Subjects Protection Program at 520-626-6721 or [www.orcr.arizona.edu/hspp](http://www.orcr.arizona.edu/hspp). An Institutional Review Board responsible for human subjects research at The University of Arizona reviewed this research project and found it to be acceptable, according to applicable state and federal regulations and University policies designed to protect the rights and welfare of participants in research.

**Thank you for your time and participation!**

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☐ I have read the participant's disclosure and agree with all the terms and conditions. I acknowledge that by completing the survey, I am giving permission for the investigator to use my information for research purposes.

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**Q1.** Please indicate your age:

☐ Under age 18 [*Skip to End*]

☐ 18 years or older

## - PART 1 -

## Your Experience with a Service Provider

In PART 1, we are interested in your experiences with a particular service provider in cases where you have had **face-to-face interactions** with service employees. Therefore, **we are NOT interested in your online service experiences.**

Please choose **ONE** of the service sectors listed below that *you have frequently patronized in the past six months* and answer the following questions:

Service Sector**Group 1**

- Beauty salons
- Full-service restaurants
- Barber shops
- Body massage
- Fine hotels
- Accounting and finances
- Counseling
- Nail services
- Legal services
- Real estate agencies
- Fitness clubs with personal trainers
- Child day care
- Hospitals, medical, and health care
- Dental care

**Group 2**

- Shoe repair
- Banking services
- Pest control
- Pool maintenance
- Photofinishing services
- Computer repair
- Lawn maintenance
- Appliance repair
- Dry cleaning and Laundry
- Auto repair and maintenance
- Plumbing services
- Veterinarian care
- Carpet cleaning
- House cleaning

**Group 3**

- Land-phone and cable services
- Health club (Fitness club)
- Copying/Printing services
- Airlines
- Movie Theaters
- Express mail services
- Amusement and theme parks
- Budget hotels
- Car rental services
- Cafeterias

**Q2.** Which service sector from those listed above (list only ONE) have you frequently patronized in the past six months (e.g., restaurants, banking services, or Airlines)? \_\_\_\_\_

**Q3.** What is the name of *ONE service provider* (related to the service sector indicated in Q2) you have frequently patronized in the past six months (e.g., Denny's, Chase, or United Airlines)? \_\_\_\_\_

**Q4.** In the past six months, how frequently have you patronized the service provider you indicated in Q3?

- |                            |                            |                            |                            |                            |                            |                            |
|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|
| Never                      | Once in six months         | Twice in six months        | Bi-monthly                 | Once a month               | Bi-weekly                  | Weekly or more frequently  |
| <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 4 | <input type="checkbox"/> 5 | <input type="checkbox"/> 6 | <input type="checkbox"/> 7 |

**Q5.** For what time period have you patronized the service provider you indicated in Q3?

- |                            |                            |                            |                            |                            |                            |                            |
|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|
| 1 month or less            | 1 month ~ 3 months         | 3 months ~ 6 months        | 6 months ~ 1 year          | 1 year ~ 3 years           | 3 years ~ 5 years          | 5 years or more            |
| <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 4 | <input type="checkbox"/> 5 | <input type="checkbox"/> 6 | <input type="checkbox"/> 7 |



- PART 2 -  
Your Behavioral Intentions

In PART 2, we would like to know ***your behavioral intentions regarding the service provider that you indicated in PART I (e.g., Denny's).***

***Thinking of that service provider (e.g., Denny's),*** please carefully read the following statements and indicate the extent of agreement or likelihood with each statement.

	Strongly Disagree		Neither agree nor disagree			Strongly agree	
I consider the service provider as my first choice compared to other service providers.	1	2	3	4	5	6	7
I have a strong intention to visit the service provider again.	1	2	3	4	5	6	7
I intend to continue using the service provider in the near future.	1	2	3	4	5	6	7
Overall, I will keep using the service provider as regularly as I do now.	1	2	3	4	5	6	7
I would recommend the service provider to my friends.	1	2	3	4	5	6	7
If my friends were looking for services offered by the service provider and were eligible for its services, I would tell them to try the service provider.	1	2	3	4	5	6	7
I would spread positive word of mouth recommendations about the service provider.	1	2	3	4	5	6	7

**- PART 3 -**

**How does the Service Provider Treat You?**

In PART 3, we are interested in ***how the service provider that you indicated in PART 1 has treated you.*** Please carefully read the following statements and indicate the extent to which you agree or disagree with each of the statements.

	Strongly disagree		Neither agree nor disagree			Strongly agree	
Overall, I am treated fairly by the service provider.	1	2	3	4	5	6	7
In general, I can count on this service provider to be fair.	1	2	3	4	5	6	7
In general, the treatment I receive from the service provider is fair.	1	2	3	4	5	6	7
Usually, the way the service provider offers service is not fair.	1	2	3	4	5	6	7
For the most part, the service provider treats its customers fairly.	1	2	3	4	5	6	7
Most of the customers who visit the service provider say they are often treated unfairly.	1	2	3	4	5	6	7
The service provider values my contribution to its well-being.	1	2	3	4	5	6	7
The service provider really cares about my well-being.	1	2	3	4	5	6	7
The service provider cares about my opinions.	1	2	3	4	5	6	7
The service provider tries to provide the best service possible.	1	2	3	4	5	6	7
The service provider cares about my general satisfaction.	1	2	3	4	5	6	7
The service provider shows very little concern for me.	1	2	3	4	5	6	7
The service provider takes pride in my accomplishments.	1	2	3	4	5	6	7

**- PART 4 -**

**What Do You Think of the Service Provider?**

In PART 4, we would like to learn of ***your general perceptions regarding the service provider*** and indicate the extent to which you agree or disagree with each of the statements.

	Strongly disagree		Neither agree nor disagree			Strongly agree	
I feel a strong sense of belonging to the service provider.	1	2	3	4	5	6	7
This service provider has a great deal of personal meaning for me.	1	2	3	4	5	6	7
I feel emotionally attached to the service provider.	1	2	3	4	5	6	7
I am proud to belong to this service provider.	1	2	3	4	5	6	7
I feel like part of the family at the service provider.	1	2	3	4	5	6	7
I really feel as if this service provider’s problems are my own.	1	2	3	4	5	6	7

## - PART 5 -

## Your Voluntary and Discretionary Behaviors for the Service Provider

In PART 5, we are now interested in ***your voluntary and discretionary behaviors which may have benefited the service provider*** you indicated in Part I.

**IMPORTANT TO READ:**

When customers patronize a service provider, customers may perform ***voluntary and discretionary behaviors that are particularly helpful, kind, considerate or thoughtful, but which are generally NOT REQUIRED to obtain successful service***. These voluntary participation behaviors may include ***behaviors in which the customer collaborates with the service provider***.

***Thinking of your experience with the service provider you indicated in PART 1***, please read the following statements and indicate the extent of your agreement with each statement.

	Strongly disagree		Neither agree nor disagree			Strongly agree	
When I have had a useful idea on how to improve service, I let the service provider know.	1	2	3	4	5	6	7
I have said positive things about the service provider and/or its employees to others.	1	2	3	4	5	6	7
I have assisted other customers when they needed my help.	1	2	3	4	5	6	7
I have put up with it when the service was not delivered as expected.	1	2	3	4	5	6	7
When I have experienced a problem, I let the service provider know about it.	1	2	3	4	5	6	7
I have helped other customers when they seemed to have problems.	1	2	3	4	5	6	7
I have been patient and waited for the employee to recover from a mistake.	1	2	3	4	5	6	7
I have taught other customers to use the service correctly.	1	2	3	4	5	6	7
I have recommended the service provider to others.	1	2	3	4	5	6	7
When I have had feedback about the service, I filled out a customer survey form.	1	2	3	4	5	6	7
I have adapted to the situation when I have waited longer than I expected to receive the service.	1	2	3	4	5	6	7
I have given advice to other customers.	1	2	3	4	5	6	7
I have encouraged friends and relatives to use the service provider.	1	2	3	4	5	6	7
I have been kind and considerate even though a mistake was made.	1	2	3	4	5	6	7
I have informed the service provider about great or poor service received from an individual employee.	1	2	3	4	5	6	7
I have helped the service provider with some of its operations.	1	2	3	4	5	6	7

- PART 6 -  
Tell Us Reasons for Your Voluntary Behaviors

In PART 6, we are curious about **reasons, motivations, and inspirations for your voluntary and discretionary behaviors toward the service provider.** They may include **your beliefs or thoughts you hold about your voluntary behaviors.**

**Thinking about the voluntary behaviors that YOU ACTUALLY PERFORMED for your service provider,** please indicate the extent to which you agree or disagree with each of the statements below.

When I performed my voluntary behaviors, I was motivated by thoughts, desires, or beliefs that ...	Strongly disagree		Neither agree nor disagree		Strongly agree	
... it is worthwhile to help others out.	1	2	3	4	5	6 7
... my voluntary behaviors would help the service provider grow and advance.	1	2	3	4	5	6 7
... everyone should be treated with respect and kindness.	1	2	3	4	5	6 7
... I would feel a sense of accomplishment with my voluntary behaviors.	1	2	3	4	5	6 7
... helping others is the right thing to do.	1	2	3	4	5	6 7
... my voluntary behaviors would provide the service provider with opportunities for improving the current service level.	1	2	3	4	5	6 7
... the service provider had done a good job.	1	2	3	4	5	6 7
... I would feel satisfied with my voluntary behaviors.	1	2	3	4	5	6 7
... they had treated me in the best possible way.	1	2	3	4	5	6 7
... my voluntary participation would make the service provider's task easier.	1	2	3	4	5	6 7
... the service provider was doing its best under the circumstances.	1	2	3	4	5	6 7
... I would experience personal growth.	1	2	3	4	5	6 7

## - PART 7 -

## Benefits/Outcomes Obtained from Your Voluntary Behaviors

In PART 7, we are interested in ***benefits or positive outcomes you obtained from the voluntary behaviors*** you performed for the service provider.

***Considering the voluntary behaviors you performed for your service provider***, please indicate the extent to which you agree or disagree with each of the statements below.

<b>My voluntary participating behaviors allowed me to ...</b>	Strongly disagree		Neither agree nor disagree				Strongly agree	
... receive higher quality services.	1	2	3	4	5	6	7	
... have feelings of accomplishment.	1	2	3	4	5	6	7	
... build a better relationship with the service provider.	1	2	3	4	5	6	7	
... receive more customized services.	1	2	3	4	5	6	7	
... have feelings of enjoyment.	1	2	3	4	5	6	7	
... make the service interaction more enjoyable.	1	2	3	4	5	6	7	
... receive more professional services.	1	2	3	4	5	6	7	
... feel innovative in how I interacted with the service provider.	1	2	3	4	5	6	7	
... save time in service delivery.	1	2	3	4	5	6	7	
... receive relational approval from the service provider.	1	2	3	4	5	6	7	
... have increased confidence in my skills.	1	2	3	4	5	6	7	
... save costs for service delivery.	1	2	3	4	5	6	7	
... have a sense of pride.	1	2	3	4	5	6	7	
... receive greater efficiency in service delivery.	1	2	3	4	5	6	7	
... have feelings of satisfaction.	1	2	3	4	5	6	7	
... have feelings of affiliation/involvement.	1	2	3	4	5	6	7	
... have good feelings about myself.	1	2	3	4	5	6	7	
... gain more value for my money.	1	2	3	4	5	6	7	
... have a good experience working with others.	1	2	3	4	5	6	7	
... receive rewards (e.g., discounts, coupons, and/or free offerings).	1	2	3	4	5	6	7	
... learn about the service provider's operations.	1	2	3	4	5	6	7	
... be a friend to the service employees.	1	2	3	4	5	6	7	
... learn about the service provider's policies.	1	2	3	4	5	6	7	
... be recognized by the service provider.	1	2	3	4	5	6	7	
... learn about how the service provider treats its customers.	1	2	3	4	5	6	7	

- PART 8 -  
Your Satisfaction

In Part 8, we are interested in **your satisfaction** regarding: **1) service employees** with whom you have interacted, **2) service outcome(s)** you have received, and **3) the service provider**, the company providing the service, you indicated in PART 1.

***Please keep thinking about the voluntary behaviors you performed for your service provider.*** Indicate the extent to which you agree or disagree with each of the following statements below pertaining to ***your satisfaction with the service outcome, service employees, and service provider at the time of your voluntary behaviors.***

1) In terms of the Service Employees

***When I have performed voluntary participating behaviors for the service provider,***

Service provider,							
I have been satisfied with the service employees who provided me the service.	1	2	3	4	5	6	7
The service employees who provided me the service has done a good job with the service.	1	2	3	4	5	6	7
The service employees who provided me the service has met my expectations.	1	2	3	4	5	6	7
I have been satisfied with service employees who worked at the service provider.	1	2	3	4	5	6	7

2) In terms of the Service Outcome(s)

***When I have performed voluntary participating behaviors for the service provider,***

Service provider							
I have felt satisfied with the service outcome I received from the service provider.	1	2	3	4	5	6	7
The service provider has done a good job at offering the service.	1	2	3	4	5	6	7
The service outcome of the service provider has met my expectations.	1	2	3	4	5	6	7
I have been satisfied with the overall service offering provided by the service provider.	1	2	3	4	5	6	7

3) In terms of the Service Provider

***When I have performed voluntary participating behaviors for the service provider,***

Service provider,							
I have been satisfied with my overall experiences with the service provider, i.e., the company providing the service.	1	2	3	4	5	6	7
In my opinion, the service provider, i.e., the company providing the service, gave satisfactory service.	1	2	3	4	5	6	7
As a whole, I have been satisfied with the service provider, i.e., the company providing the service.	1	2	3	4	5	6	7

***About the service provider that I have indicated ...***

<i>About the service provider that I have indicated ...</i>	Very dissatisfied		Neutral		Very satisfied		
When you have performed voluntary participating behaviors for the service provider (i.e., the service company), how satisfied have you been with the service provider?	1	2	3	4	5	6	7

**FOR THE REMAINDER OF THE SURVEY, WE ARE INTERESTED IN YOUR GENERAL PREDISPOSITIONS. THEREFORE, YOU SHOULD NOT REFLECT ON YOUR VOLUNTARY BEHAVIOR BUT ON YOUR EVERYDAY FEELINGS, THOUGHTS, AND BEHAVIORS.**

**- PART 9 -**

**Tell Us About Your Feelings and Behaviors**

In PART 9, we are interested in your general personal orientation. Below are statements that may or may not describe *your feelings or your general behaviors*.

Please read each statement carefully and indicate your response level from the choices provided. As always, there are no right or wrong responses.

	Strongly disagree		Neither agree nor disagree				Strongly agree	
When people are nasty to me, I feel very little responsibility to treat them well.	1	2	3	4	5	6	7	
I would feel less bothered about leaving litter in a dirty park than in a clean one.	1	2	3	4	5	6	7	
No matter what a person has done to me, there is no excuse for taking advantage of them.	1	2	3	4	5	6	7	
With today's pressure for grades and the widespread cheating in schools, the individual who cheats occasionally is not really much at fault.	1	2	3	4	5	6	7	
It doesn't make much sense to be very concerned about how we act when we are sick and feeling miserable.	1	2	3	4	5	6	7	
If I broke a machine through mishandling, I would feel less guilty if it had been already damaged before I used it.	1	2	3	4	5	6	7	
When you have a job to do, it is impossible to look out for everybody's best interest.	1	2	3	4	5	6	7	
I sometimes find it difficult to see things from the "other person's" point of view.	1	2	3	4	5	6	7	
I sometimes try to understand my friends better by imagining how things look from their perspective.	1	2	3	4	5	6	7	
If I'm sure I'm right about something, I don't waste much time listening to other people's arguments.	1	2	3	4	5	6	7	
I believe that there are two sides to every question and try to look at them both.	1	2	3	4	5	6	7	
When I'm upset at someone, I usually try to "put myself in their shoes" for a while.	1	2	3	4	5	6	7	
When I see someone being taken advantage of, I feel kind of protective toward them.	1	2	3	4	5	6	7	
Other people's misfortunes do not usually disturb me a great deal.	1	2	3	4	5	6	7	
When I see someone being treated unfairly, I sometimes don't feel very much pity for them.	1	2	3	4	5	6	7	
I am often quite touched by things that I see happen.	1	2	3	4	5	6	7	
I am usually pretty effective in dealing with emergencies.	1	2	3	4	5	6	7	
I tend to lose control during emergencies.	1	2	3	4	5	6	7	
When I see someone who badly needs help in an emergency, I go to pieces.	1	2	3	4	5	6	7	

Below are sets of statements, which may or may not describe **how you make decisions when you have to choose between two courses of action or alternatives when there is no clear right way or wrong way to act.**

Some examples of such situations are:

- 1) Being asked to lend something to a close friend who often forgets to return things;
- 2) Deciding whether you should keep something you have won for yourself or share it with a friend; and
- 3) Choosing between studying for an important exam and visiting a sick relative.

Please read each statement and indicate your response level from the choices provided.

	Strongly disagree		Neither agree nor disagree			Strongly agree	
My decisions are usually based on my concern for other people.	1	2	3	4	5	6	7
My decisions are usually based on what is the most fair and just way to act.	1	2	3	4	5	6	7
I choose alternatives that are intended to meet everybody's needs.	1	2	3	4	5	6	7
I choose a course of action that maximizes the help other people receive.	1	2	3	4	5	6	7
I choose a course of action that considers the rights of all people involved.	1	2	3	4	5	6	7
My decisions are usually based on concern for the welfare of others.	1	2	3	4	5	6	7

Below are **several different actions in which people sometimes engage.**

Please read each of the actions below and indicate how frequently you have carried it out in the past.

	Never						Very Often
I have helped carry a stranger's belongings (e.g., books, parcels, etc.).	1	2	3	4	5	6	7
I have allowed someone to go ahead of me in a line (e.g., supermarket, copying machine, etc.)	1	2	3	4	5	6	7
I have let a neighbor whom I didn't know too well borrow an item of some value (e.g., tools, a dish, etc.).	1	2	3	4	5	6	7
I have, before being asked, volunteered to look after a neighbor's pets or children without being paid for it.	1	2	3	4	5	6	7
I have offered to help a handicapped or elderly stranger across a street.	1	2	3	4	5	6	7

Please read each of **statements below regarding various actions** and indicate the extent to which you agree or disagree with each below.

	Strongly disagree		Neither agree nor disagree			Strongly agree	
I am constantly on the lookout for new ways to improve my life.	1	2	3	4	5	6	7
Wherever I have been, I have been a powerful force for constructive change.	1	2	3	4	5	6	7



Nothing is more exciting than seeing my ideas turn into reality.	1	2	3	4	5	6	7
If I see something I don't like, I fix it.	1	2	3	4	5	6	7
No matter what the odds, if I believe in something I will make it happen.	1	2	3	4	5	6	7
I love being a champion for my ideas, even against others' opposition.	1	2	3	4	5	6	7
I excel at identifying opportunities.	1	2	3	4	5	6	7
I am always looking for better ways to do things.	1	2	3	4	5	6	7
If I believe in an idea, no obstacle will prevent me from making it happen.	1	2	3	4	5	6	7
I can spot a good opportunity long before others can.	1	2	3	4	5	6	7

- PART 10 -  
Tell Us About Yourself

Please read each of **statements regarding how you see yourself** and indicate the extent to which you agree or disagree with each below.

	Very inaccurate		Neither accurate nor inaccurate			Very accurate	
I am interested in people.	1	2	3	4	5	6	7
I am always prepared.	1	2	3	4	5	6	7
I sympathize with others' feelings.	1	2	3	4	5	6	7
I pay attention to details.	1	2	3	4	5	6	7
I have a soft heart.	1	2	3	4	5	6	7
I get chores done right away.	1	2	3	4	5	6	7
I take time out for others.	1	2	3	4	5	6	7
I like order.	1	2	3	4	5	6	7
I feel others' emotions.	1	2	3	4	5	6	7
I follow a schedule.	1	2	3	4	5	6	7
I make people feel at ease.	1	2	3	4	5	6	7
I am exacting in my work.	1	2	3	4	5	6	7
I am not really interested in others.	1	2	3	4	5	6	7
I leave my belongings around.	1	2	3	4	5	6	7
I insult people.	1	2	3	4	5	6	7
I make a mess of things	1	2	3	4	5	6	7
I am not interested in other people's problem.	1	2	3	4	5	6	7
I often forget to put things back in their proper place.	1	2	3	4	5	6	7
I feel little concerns for others.	1	2	3	4	5	6	7
I shirk my duties.	1	2	3	4	5	6	7

**- PART 11 -**  
**Demographic Information**

**D1.** Your gender is:

☐ Male ☐ Female

**D2.** Your age is:

<input type="checkbox"/> 18~24	<input type="checkbox"/> 25~29	<input type="checkbox"/> 30~34
<input type="checkbox"/> 35~39	<input type="checkbox"/> 40~44	<input type="checkbox"/> 45~49
<input type="checkbox"/> 50~54	<input type="checkbox"/> 55~59	<input type="checkbox"/> 60 and over

**D3.** Your current marital status is:

<input type="checkbox"/> Single	<input type="checkbox"/> Married
<input type="checkbox"/> Divorced	<input type="checkbox"/> Widowed

**D4.** Your ethnicity is:

<input type="checkbox"/> Caucasian	<input type="checkbox"/> African-American
<input type="checkbox"/> Hispanic/Hispanic-American	<input type="checkbox"/> Asian/Asian-American
<input type="checkbox"/> Pacific Islander	<input type="checkbox"/> Native American
<input type="checkbox"/> Other, please specify _____	

**D5.** Your annual family household income is:

<input type="checkbox"/> Less than \$10,000	<input type="checkbox"/> \$10,000 to \$29,999	<input type="checkbox"/> \$30,000 to \$49,999
<input type="checkbox"/> \$50,000 to \$69,999	<input type="checkbox"/> \$70,000 to \$89,999	<input type="checkbox"/> \$90,000 or more

**D6.** Your education is:

<input type="checkbox"/> Some high school	<input type="checkbox"/> High school graduate
<input type="checkbox"/> Some college credit	<input type="checkbox"/> Associate degree
<input type="checkbox"/> Bachelor's degree	<input type="checkbox"/> Master's degree
<input type="checkbox"/> Doctorate degree	<input type="checkbox"/> Other, please specify _____

**D7.** Your current occupation is:

<input type="checkbox"/> Laborer	<input type="checkbox"/> Machine operator/service worker
<input type="checkbox"/> Craftsman	<input type="checkbox"/> Clerical or sales worker
<input type="checkbox"/> Administrative personnel	<input type="checkbox"/> Manager
<input type="checkbox"/> Professional	<input type="checkbox"/> Student
<input type="checkbox"/> Retired	<input type="checkbox"/> Other, please specify _____

**D8.** My state of residence is:

<input type="checkbox"/> Alabama (1)	<input type="checkbox"/> Louisiana (18)	<input type="checkbox"/> Ohio (35)
<input type="checkbox"/> Alaska (2)	<input type="checkbox"/> Maine (19)	<input type="checkbox"/> Oklahoma (36)
<input type="checkbox"/> Arizona (3)	<input type="checkbox"/> Maryland (20)	<input type="checkbox"/> Oregon (37)
<input type="checkbox"/> Arkansas (4)	<input type="checkbox"/> Massachusetts (21)	<input type="checkbox"/> Pennsylvania (38)
<input type="checkbox"/> California (5)	<input type="checkbox"/> Michigan (22)	<input type="checkbox"/> Rhode Island (39)
<input type="checkbox"/> Colorado (6)	<input type="checkbox"/> Minnesota (23)	<input type="checkbox"/> South Carolina (40)

- |  |  |   |
|--|--|---|
| <input type="checkbox"/> Connecticut (7) | <input type="checkbox"/> Mississippi (24)    | <input type="checkbox"/> South Dakota (41)  |
| <input type="checkbox"/> Delaware (8)    | <input type="checkbox"/> Missouri (25)       | <input type="checkbox"/> Tennessee (42)     |
| <input type="checkbox"/> Florida (9)     | <input type="checkbox"/> Montana (26)        | <input type="checkbox"/> Texas (43)         |
| <input type="checkbox"/> Georgia (10)    | <input type="checkbox"/> Nebraska (27)       | <input type="checkbox"/> Utah (44)          |
| <input type="checkbox"/> Hawaii (11)     | <input type="checkbox"/> Nevada (28)         | <input type="checkbox"/> Vermont (45)       |
| <input type="checkbox"/> Idaho (12)      | <input type="checkbox"/> New Hampshire (29)  | <input type="checkbox"/> Virginia (46)      |
| <input type="checkbox"/> Illinois (13)   | <input type="checkbox"/> New Jersey (30)     | <input type="checkbox"/> Washington (47)    |
| <input type="checkbox"/> Indiana (14)    | <input type="checkbox"/> New Mexico (31)     | <input type="checkbox"/> West Virginia (48) |
| <input type="checkbox"/> Iowa (15)       | <input type="checkbox"/> New York (32)       | <input type="checkbox"/> Wisconsin (49)     |
| <input type="checkbox"/> Kansas (16)     | <input type="checkbox"/> North Carolina (33) | <input type="checkbox"/> Wyoming (50)       |
| <input type="checkbox"/> Kentucky (17)   | <input type="checkbox"/> North Dakota (34)   |   |

**Thank you for your participation!**

## BIBLIOGRAPHY

- Ahearne, M., Bhattacharya, C. B., and Gruen, T. (2005). Antecedents and consequences of customer–company identification: Expanding the role of relationship marketing. *Journal of Applied Psychology*, 90(3), 574-585.
- Ajzen, I. and Fishbein, M. (1980). Understanding attitudes and predicting social behavior. Englewood Cliffs, NJ: Prentice-Hall.
- Allen, N. J., and Meyer, J. P. (1990). The measurement and antecedents of affective, continuance, and normative commitment. *Journal of Occupational Psychology*, 63(1), 1-18.
- Ambrose, M. L. and Schminke, M. (2009). The role of overall justice judgments in organizational justice research: A test of mediation. *Journal of Applied Psychology*, 94(2), 491-500.
- Anderson, E. W., Fornell, C., and Lehmann, D. R. (1994). Customer satisfaction, market share and profitability: findings from Sweden. *Journal of Marketing*, 58(3), 53-66.
- Anderson, J. C. and Gerbing, D. W. (1988). Structural equation modeling in practice: A review and recommended two-step approach, *Psychological Bulletin*, 103, 411-423.
- Anderson, E. W. and Sullivan, M. (1993). The antecedents and consequences of customer satisfaction for firms. *Marketing Sciences*, 12(2), 125-143.
- Andreassen, T. W. (2000). Antecedents to satisfaction with service recovery. *European Journal of Marketing*, 34(1/2), 156-175.
- Arnold, M. J. and Reynolds, K. E. (2003). Hedonic shopping motivations. *Journal of Retailing*, 79(2), 77-95.
- Auh, S., Bell, S. J., McLeod, C. S., and Shih, E. (2007). Co-production and customer loyalty in financial services. *Journal of Retailing*, 83(3), 359-370.
- Babin, B. J. and Darden, W. R. (1995). Consumer self-regulation in a retail environment. *Journal of Retailing*, 71(1), 47-70.
- Babin, B. J. and Attaway, J. S. (2000). Atmospheric affect as a tool for creating value and gaining share of customer. *Journal of Business Research*, 49(2), 91-99.
- Bagozzi, R. P. and Yi, Y. (1988). On the evaluation of structural equation models. *Journal of the Academy of Marketing Science*, 16, 74-94.
- Bagozzi, R. P. and Phillips, L. W. (1982). Representing and testing organizational theories: A holistic construal. *Administrative Sciences Research*, 26(6), 767-786.

- Barrick, M. R. and Mount, M. K. (1991). The Big Five personality dimensions and job performance: A meta-analysis. *Personnel Psychology*, 44(1), 1-26.
- Barrick, M. R., Mount, M. K., and Strauss, J. P. (1992). The Big Five and ability predictors of citizenship, delinquency, and sales performance. Paper presented at Seventh Annual Conference of the Society of Industrial and Organizational Psychology, Montreal.
- Barrick, M. R. and Mount, M. K. (1995). The personal characteristics inventory manual. Unpublished manuscript, University of Iowa, Iowa City.
- Barrick, M. R., Stewart, G. L., Neubert, M. J., and Mount, M. K. (1998). Relating member ability and personality to work-team processes and team effectiveness. *Journal of Applied Psychology*, 83(3), 377-391.
- Bateman, T. and Crant, J. (1993). The proactive component of organizational behavior: A measure and its correlates. *Journal of Organizational Behavior*, 14(2), 103-118.
- Batson, C. D. and Shaw, L. L. (1991). Evidence for altruism: Toward a pluralism of prosocial motives. *Psychological Inquiry*, 2(2), 107-122.
- Baumeister, R. F. (1998). The self. In D. T. Gilbert, S. T. Fiske, and G. Lindzey (Eds.), *Handbook of social psychology*, 1, 680-740. New York: McGraw-Hill
- Bearden, W. O., Hardesty, D. M., and Rose, R. L. (2001). Consumer self-confidence: Refinements in conceptualization and measurement. *Journal of Consumer Research*, 28(1), 121-134.
- Beatty, S. E., Mayer, M. L., Coleman, J. E., Reynolds, K. L., and Lee, J., (1996). Customer-sales associate retail relationships. *Journal of Retailing*, 72(3), 223-247.
- Becherer, R. C. and Maurer, J. G. (1999). The proactive personality disposition and entrepreneurial behavior among small company presidents. *Journal of Small Business Management*, 38(1), 28-36.
- Berry, L. L. and Parasuraman, A. (1991). Marketing services: Competing through quality. New York: The Free Press.
- Bettencourt, L. A. (1997). Customer voluntary performance: Customer as partners in service delivery. *Journal of Retailing*, 73(3), 383-406.
- Bettencourt, L. A., Gwinner, K. P., and Meuter, M. L. (2001). A comparison of attitude, personality, and knowledge predictors of service-oriented organizational citizenship behaviors. *Journal of Applied Psychology*, 86(1), 29-41.
- Bettencourt, L. A., Ostrom, A. L., Brown, S. W., and Roundtree, R. I. (2002). Client co-

- production in knowledge-intensive business services. *California Management Review*, 44(4), 100-128.
- Bies, R. J., and Moag, J. S. (1986). *Interactional justice: Communication criteria of fairness*. In Lewicki, R.J., Sheppard, B.H., and Bazerman, M.H. (eds.), *Research on Negotiation in Organizations*, JAI Press, Greenwich, CT., 43-55.
- Bigné, J. E., Sanchez, M. I., and Sanchez, J. (2001). Tourism image, evaluation variables and after purchase behavior: Inter-relationship. *Tourism Management*, 22(6), 607-616.
- Bitner, M. J. (1990). Evaluating service encounters: The effects of physical surroundings and employee responses. *Journal of Marketing*, 54(2), 69-82.
- Bitner, M. J. and Hubbert, A. R. (1993). Encounter satisfaction vs. overall satisfaction vs. quality, in *Service Quality: New Directions in Theory and Practice*. Roland R. Rust and Richard L. Oliver, eds., Sage, Newbury Park, CA. 71-93.
- Blau, P. M. (1964). *Exchange and Power in Social Life*. New York: Wiley.
- Blodgett, J. G., Granbois, D. H., and Walters, R. G. (1993). The effects of perceived justice on complaints' negative word-of-mouth behavior and repatronage intentions. *Journal of Retailing*, 69(4), 399-427.
- Bolino, M. C., Turnley, W. H., and Bloodgood, J. M. (2002). Citizenship behavior and the creation of social capital in organizations. *The Academic of Management Review*, 27(4), 505-522.
- Bollen, K. A. (1989). *Structural equations with latent variables*. New York: Wiley.
- Borman, W. C. and Motowidlo, S. J. (1997). Task performance and contextual performance: The meaning for personnel selection research. *Human Performance*, 10(2), 99-109.
- Borman, W. C. Penner, L. A., Allen, T. D., and Motowidlo, S.J. (2001). Personality predictors of citizenship performance. *International Journal of Selection and Assessment*, 9(1/2), 52-69.
- Bove, L. L., Pervan, S. J., Beatty, S. E., and Shiu, E. (2009). Service worker role in encouraging customer organizational citizenship behaviors. *Journal of Business Research*, 62(7), 698-705.
- Bowen, D. E. (1983). Customers as substitutes for leadership in service organizations. Unpublished doctoral dissertation, Michigan State University.
- Bowen, D. E. (1990). Interdisciplinary study of service: some progress, some prospects. *Journal of Business Research*, 20(1), 71-79.
- Bowen, D. E., Gilliland, S. W., and Folger, R. (1999). HRM and service fairness: How being fair with employees spills over to customers. *Organizational Dynamics*, 27(3), 7-23.

- Bowen, D. E., Schneider, B., and Kim, S. S. (2000). Shaping service cultures through strategic human resource management. In T. A. Swartz and D. Iacobucci (Eds.), *Handbook of services marketing and management*, 439-454. Thousand Oaks, CA: Sage.
- Braunsberger, K., Wybenga, H., and Gates, R. (2007). A comparison of reliability between telephone and web-based surveys. *Journal of Business Research*, 60(7), 758-764.
- Buchanan, T., Johnson, J. A., and Goldberg, L. R. (2005). Implementing a five-factor personality inventory for use on the Internet. *European Journal of Psychological Assessment*, 21, 115-127.
- Burton, S., Sheather, S., and Roberts, J. (2003). Reality or perception?: The effect of actual and perceived performance on satisfaction and behavioral intention. *Journal of Service Research*, 5(4), 292-302.
- Buss, D. M. (1987). Selection, evocation, and manipulation. *Journal of Personality and Social Psychology*, 53(6), 1214-1221.
- Buttgen, M., Schumann, J. H., and Ates, Z. (2012). Service locus of control and customer coproduction: The role of prior service experience and organizational socialization. *Journal of Service Research*, 15(2), 166-181.
- Butz, H. E. J. and Goodstein, L. D. (1996). Measuring customer value: Gaining the strategic advantage. *Organizational Dynamics*, 24(3), 63-77.
- Buzzell, R. and Gale, B. (1987). *The PIMS Principles*. New York: Free Press.
- Cadiz, D., Sawyer, J. E., and Griffith, T. L. (2009). Developing and validating field measurement scales for absorptive capacity and experienced community of practice. *Educational and Psychological Measurement*, 69(6), 1035-1058.
- Campbell, D. J. (2000). The proactive employee: Managing workplace initiative. *Academy of Management Executive*, 14(3), 52-66.
- Carmeli, A. (2005). Perceived external prestige, affective commitment, and citizenship behaviors. *Organization Studies*, 26(3), 443-64.
- Carmen, J. M. and Langeard, E. (1980). Growth strategies of service firms. *Strategic Management Journal*, 1(1), 7-22.
- Cermak, D. S. P., File, K. M., and Prince, R. A. (1994). Customer participation in service specification and delivery. *Journal of Applied Business Research*, 10(2), 90-97.
- Chan, K. W., Yim, C. K., and Lam, S. S. K. (2010). Is customer participation in value creation a double-edged sword? Evidence from professional financial services across cultures. *Journal*



- of Marketing*, 74(3), 48-64.
- Chen, Z. X. and Francesco, A. M. (2003). The relationship between the three components of commitment and employee performance in China. *Journal of Vocational Behavior*, 62(3), 490-510.
- Cheung, G. W., and Rensvold, R. B. (2002). Evaluating goodness-of-fit indexes for testing measurement invariance. *Structural Equation Modeling*, 9, 233-255.
- Churchill, G. A. (1979). A paradigm for developing better measures of marketing constructs. *Journal of Marketing Research*, 16, 64-73.
- Claycomb, C., Lengnick-Hall, C. A., and Inks, L. W. (2001). The customer as a productive resource: A pilot study and strategic implications. *Journal of Business Strategies*, 18(1), 47-69.
- Cohen, J. and Cohen, P. (1983). Applied multiple regression/correlation analysis for the behavioral sciences (2<sup>nd</sup> ed.). Hillsdale, NJ: Erlbaum.
- Colquitt, J. A. and Shaw, J. C. (2005). How should organizational justice be measured? In J. Greenberg and J. A. Colquitt (Eds.), *The handbook of organizational justice* (113-152). Mahwah, NJ: Erlbaum
- Crant J. M. (2000). Proactive behavior in organizations. *Journal of Management*. 26(3), 435-462.
- Crant, J. M. and Bateman, T. S. (2000). Charismatic leadership viewed from above: The impact of proactive personality. *Journal of Organizational Behavior*, 21(1), 63-75.
- Creswell, J. W. (2003). Research design: Qualitative, quantitative, and mixed methods approaches (2<sup>nd</sup> ed.). Thousand Oaks, CA: Sage.
- Cronin, J. J. Jr. and Taylor, S. A. (1994). SERVPERF versus SERVQUAL: Reconciling performance-based and perceptions-minus-expectations measurement of service quality. *Journal of Marketing*, 58(1), 125-131.
- Cronin, J. J. Jr., Brady, M. K., and Hult, G. T. M. (2000). Assessing the effects of quality, value, and customer satisfaction on consumer behavioral intentions in service environments. *Journal of Retailing*, 76(2), 193-218.
- Crosby, L. A., Evans, K. R., and Cowles, D. (1990). Relationship quality in services selling: An interpersonal influence perspective. *Journal of Marketing*, 54(3), 68-81.
- Dabholkar, P. A. and Bagozzi, R. P. (2002). An attitudinal model of technology-based self-service: Moderating effects of consumer traits and situational factors. *Journal of Academic Marketing Science*, 30(3), 184-201.

- Deci, E. L. and Ryan, R. M. (1985). Intrinsic motivation and self-determination in human behavior. New York: Plenum.
- DeConinck, J. B. (2010). The effect of organizational justice, perceived organizational support, and perceived supervisor support on marketing employees' level of trust. *Journal of Business Research*, 63, 1348-1355.
- Dellande, S., Gilly, M. C., and Graham, J. L. (2004). Gaining compliance and losing weight: The role of the service provider in health care services. *Journal of Marketing*, 68(3), 78-91.
- Deutsch, M. (1975). Equity, equality, and need: What determines which value will be used as the basis of distributive justice?. *Journal of Social Issues*, 31(3), 137-49.
- Dholakia, U. M., Bagozzi, R. P., and Pearo, L. K. (2004). A social influence model of consumer participation in network- and small- group-based virtual communities. *International Journal of Research in Marketing*, 21(3), 241-263.
- Diamantopoulos, A. and Winklhofer H. (2001). Index construction with formative indicators: An alternative to scale development, *Journal of Marketing Research*, 37, 269–277.
- Dong, B., Evans, K. R., and Zou, S. (2008). The effects of customer participation in co-created service recovery. *Journal of the Academy of Marketing Science*, 36(1), 123-137.
- Dowling, G. R., and Staelin, R. (1994). A model of perceived risk and intended risk-handling activity. *Journal of Consumer Research*, 21(1), 119-134.
- Ekmekci, O. (2009). The role of frontline employees in building sustainable customer service. *S.A.M. Advanced Management Journal*, 74(4), 11-20.
- Eisenberger, R., Huntington, R., Hutchison, S., and Sowa, D. (1986). Perceived organizational support. *Journal of Applied Psychology*, 71(3), 500-507.
- Emerson, R. (1976). Social exchange theory, *Annual Review of Sociology*, 2, 335-362.
- Ennew, C. T. and Binks, M. R. (1999). Impact of participative service relationships on quality satisfaction and retention: an exploratory study. *Journal of Business Research*, 46(2), 212-232.
- Etgar, M. (2008). A Descriptive model of the consumer co-production process. *Journal of the Academy of Marketing Science*, 36(1), 97-108.
- Finkelstein, M. A., Penner, L. A., and Brannick, M. T. (2005). Motive, role identity, and prosocial personality as predictors of volunteer activity. *Social Behavior and Personality*, 33(4), 403-418.
- Finkelstein, M. A. (2008). Predictors of volunteer time: The changing contributions of motive

- fulfillment and role identity. *Social Behavior and Personality*, 36(10), 1353-1364.
- Fishbein, M. and Ajzen, I. (1975). Belief, attitude, intention, and behavior: An introduction to theory and research. Reading, MA: Addison-Wesley.
- Foa, U. G. and Foa, E. B. (1980). Resource theory: Interpersonal behavior as exchange. In K.S. Gergen, M.S. Greenberg, and R.H Willis (Eds.), *Social exchange: Advances in theory and research* (77-94). New York: Plenum Press.
- Ford, W. S. Z. (1995). Evaluation of the indirect influence of courteous service on customer discretionary behavior. *Human Communication Research*, 22(1), 65-89.
- Fornell, C. (1992). A national customer satisfaction barometer: The Swedish experience. *Journal of Marketing*, 56(1), 1-18.
- Fornell, C., Johnson, M. D., Anderson, E. W., Cha, J., and Bryant, B. E. (1996). The American customer satisfaction index: Nature, purpose and findings. *Journal of Marketing*, 60(4), 7-18.
- Fornell, C., and Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research*, 18(1), 39-50.
- Gallarza, M. G. and Gil-Saura, I. G. (2006). Value dimensions, perceived value, satisfaction and loyalty: An investigation of university students' travel behavior. *Tourism management*, 27(3), 437-452.
- Garma, R. and Bove, L. L. (2011). Contributing to well-being: Customer citizenship behaviors directed to service personnel. *Journal of Strategic Marketing*, 19(7), 633-649.
- Gefen, D. and Ridings, C. M. (2002). Implementation team responsiveness and user evaluation of customer relationship management: A quasi-experimental design study of social exchange theory. *Journal of Management Information Systems*, 19(1), 47-69.
- Glasford, D. E. (2008). Predicting voting behavior of young adults: The importance of information, motivation, and behavioral skills. *Journal of Applied Social Psychology*, 38(11), 2648-2672.
- Goldberg, L. R. (1999). A broad-bandwidth, public domain, personality inventory measuring the lower-level facets of several five-factor models. In I. Mervielde, I.J. Deary, F. De Fruyt, and F. Ostendorf (Eds.), *Personality psychology in Europe* (7, 7-28). Tilburg, The Netherlands: Tilburg University Press.
- Goldberg, L. R. (2001). Analyses of Digman's child-personality data: Derivation of Bi-Five factor scores from each of six samples. *Journal of Personality*, 69(5), 709-743.
- Goff, B. G., Boles, J. S., Bellenger, D. N., and Stojack, C. (1997). The influence of salesperson

- selling behaviors on customer satisfaction with products. *Journal of Retailing*, 73(2), 171-184.
- Gow AJ, Whiteman MC, Pattie A, Deary IJ. Goldberg's 'IPIP' Big-Five factor markers: Internal consistency and concurrent validation in Scotland. *Pers Individ Dif* 2005;39:317-29.
- Greenberg, J. (1993). Justice and organizational citizenship: A commentary on the state of the science. *Employee Responsibilities and Rights Journal*, 6(3), 249-256.
- Gremler, D. D. and Gwinner, K. P. (2008). Rapport-building behaviors used by retail employees. *Journal of Retailing*, 84(3), 308-324.
- Griffin, M. A. and Neal, A. (2000). Perceptions of safety at work: A framework for linking safety climate to safety performance, knowledge, and motivation. *Journal of Occupational Health Psychology*, 5(3), 347-358.
- Groth, M. (2005). Customers as good soldiers: Examining citizenship behaviors in Internet service deliveries. *Journal of Management*, 31(1), 7-27.
- Groth, M., Mertens, D. P., and Murphy, R. O. (2004). Customers as good solidiers: Extending organizational citizenship behavior research to the customer domain. In: D. L. Turnipseed (Ed.), *Handbook of organizational citizenship behavior* (pp. 411-430). Hauppauge, NY: Nova Science Publishers.
- Gruen, T. W., Summers, J. O., and Acito, F. (2000). Relationship marketing activities, commitment, and membership behaviors in professional associations. *Journal of Marketing*, 64(3), 34-49.
- Gwinner, K. P., Gremler, D. D., and Bitner, M. J. (1998). Relational benefits in services industries: the customer's perspective. *Journal of the Academy of Marketing Science*, 26(2), 101-114.
- Jaworski, B. and Kohli, A. K. (2006). *Co-creating the voice of the customer*. In R. F. Lusch & S. L. Vargo (Eds.), *The service dominant logic of marketing: Dialog, debate and directions* (109-117). Armonk, NY: M.E. Sharpe.
- Johar, G. V. (2005). The price of friendship: when, why, and how relational norms guide social exchange behavior. *Journal of Consumer Psychology*, 15(1), 22-27.
- Johnson, J. W. (2001). The relative importance of task and contextual performance dimensions to supervisor judgments of overall performance. *Journal of Applied Psychology*, 86(5), 984-996.
- Jones, T. O. and Sasser, W. E. Jr. (1995). Why satisfied customers defect. *Harvard Business Review*, 73(6), 88-99.

- Jones, M., Reynolds, K. E., and Arnold, M. J. (2006). Hedonic and utilitarian shopping value: Investigating differential effects on retail outcomes. *Journal of Business Research*, 59(9), 974-981.
- Hair, J. F., Black, W. C., Babin, B. J., and Anderson, R. E. (2009). *Multivariate data analysis* (7<sup>th</sup> ed.). Upper Saddle River, New Jersey: Pearson Prentice Hall.
- Hars, A. and Ou, S. (2002). Working for free? Motivations for participating in open-source projects. *International Journal of Electronic Commerce*, 6(3), 25-39.
- Hartline, M. D. and Ferrell, O. C. (1996). The management of customer-contact employees: An empirical investigation. *Journal of Marketing*, 60(4), 52-70.
- Hellier, P. K., Geursen, G. M., Carr, R. A., and Rickard, J. A. (2003). Customer repurchase intention: A general structural equation model. *European Journal of Marketing*, 37(11/12), 1762-1800.
- Heskett, J. L., Jones, T. O., Loveman, G. W., Sasser, E. W., and Schlesinger, L.A. (1994). Putting the service-profit chain to work. *Harvard Business Review*, 72(2), 164-174.
- Heskett, J. L., Sasser, W. E., and Schlesinger, L. A. (1997). *The service profit chain: How leading companies link profit and growth to loyalty, satisfaction, and value*. New York: Free Press.
- Hess, R. L., Jr., Ganesan, S. and Klein, N. M. (2003). Service failure and recovery: The impact of relationship factors on customer satisfaction. *Journal of the Academy of Marketing Science*, 31(2), 127-145.
- Hogan, R. T., Hogan, J., and Roberts. B. W. (1996). Personality measurement and employment decisions: Questions and answers. *American Psychologist*, 51(5), 469-477.
- Hogan, R. and Shelton, D. (1998). A Socioanalytic perspective on job performance. *Human Performance*, 11(2/3), 129-144.
- Holbrook, M. B. (1994). The nature of customer value: An axiology of services in the consumption experience. In R. T. Rust and R. L. Oliver (Eds.), *Service quality: New directions in theory and practice* (21-71). Newbury Park, CA: Sage Publications.
- Holbrook, M. B. (1999). *Introduction to consumer value*, in Holbrook, M. (Ed.), *Consumer Value: A Framework for Analysis and Research*, Routledge, New York, NY, 1-28.
- Holbrook, M. B. (2005). Customer value and autoethnography: Subjective personal introspection and the meanings of a photograph collection. *Journal of Business Research*, 58(1), 45-61.
- Holbrook, M. B. and Hirschman, E. C. (1982). The experiential aspects of consumption,

- consumer fantasies, feelings, and fun. *Journal of Consumer Research*, 9(2), 132-40.
- Holloway, B. B. and Beatty, S. E. (2003). Service failure in online retailing: A recovery opportunity. *Journal of Service Research*, 6(1), 92-105.
- Hosany, S. and Witham, M. (2010). Dimensions of cruiser's experiences, satisfaction, and intention to recommend. *Journal of Travel Research*, 49(3), 351-364.
- Hu, L. and Bentler, P. M. (1995). Evaluating model fit. In R.H. Hoyle (Ed.), *Structural equation modelling: Concepts, issues and applications*, (pp.76-99). London: Sage.
- Huang, C-C. and You, C-S. (2011). The three components of organizational commitment on in-role behaviors and organizational citizenship behaviors. *African Journal of Business Management*, 5(28), 11335-11344.
- Hunt, H. W. (1977). A simulation model for decomposition in grasslands. *Ecology*, 58(3), 469-484.
- Hurtz, G. M., and Donovan, J. J. (2000). Personality and job performance: The Big Five revisited. *Journal of Applied Psychology*, 85(6), 869-879.
- Hurly, R. F. (1998). Customer service behavior in retail settings: A study of the effect of service provider personality. *Journal of the Academy Marketing Science*, 26(2), 115-127.
- Ilies, R., Scott, B. A., and Judge, T. A. (2006). The interactive effects of personal traits and experienced states on intraindividual patterns of citizenship behavior. *Academy of management Journal*, 49(3), 561-575.
- Kalaignanam, K. and Varadarajan, R. (2006). *Customers as co-producers: Implications for marketing strategy effectiveness and marketing operations efficiency*. In R. F. Lusch and S. L. Vargo (Eds.), *The service dominant logic of marketing: Dialog, debate and directions* (166-180). Armonk, NY: M.E. Sharpe.
- Kamdar, D. A. and Van Dyne, L. (2007). The joint effects of personality and workplace social exchange relationships in predicting task performance and citizenship performance. *Journal of Applied Psychology*, 92(5), 1286-1298.
- Kau, A. and Loh, E. W. (2006). The effects of service recovery on consumer satisfaction: a comparison between complainants and non-complainants. *Journal of Services Marketing*, 20(2), 101-111.
- Keh, H. T. and Teo, C. W. (2001). Retail customers as partial employees in service provision: A conceptual framework. *International Journal of Retail and Distribution Management*, 29(8), 370-378.

- Kelley, S. W., Donnelly, J. H. Jr., and Skinner, S. J. (1990). Customer participation in service production and delivery. *Journal of Retailing*, 66(3), 315-335.
- Kelloway, E. K. (1995). Structural equation modeling in perspective. *Journal of Organizational Behavior*, 16(3), 215-224.
- Khalifa, A. S. (2004). Customer value: A review of recent literature and an integrative configuration. *Management Decision*, 42(5), 645-666.
- Kim, Y. K. (2002). Consumer value: An application to mall and Internet shopping. *International Journal of Retail and Distribution Management*, 30(12), 595-602.
- Kirkman, B. L. and Rosen, B. (1999). Beyond self-management: Antecedents and consequences of team empowerment. *Academy of Management Journal*, 42(1), 58-74.
- Kleinbaum, D., Kupper, L., and Muller, K. (1988). Applied regression analysis and other multivariable models. Boston: PWS-Kent Publishing Co.,.
- Kleinmuntz, B. (1967). *Personality measurement: An introduction*. Homewood, Illinois: Dorsey.
- Klenosky, D. and Gitelson, R. (1998). Travel agents' destination recommendations. *Annals of Tourism Research*, 25(3), 661-674.
- Konovsky, M. A. and Organ, D. W. (1993). Dispositional versus contextual determinants of organizational citizenship behavior. Unpublished manuscript, Tulane University, New Orleans, LA.
- Koschat, A. M. and Swayne, D. F. (1996). Interactive graphical methods in the analysis of customer panel data (with discussion). *Journal of Business and Economic Statistics*, 14(1), 113-132.
- Kray, L. J. and Lind, E. A. (2002). The injustices of others: Social reports and the integration of others' experiences in organizational justice judgments. *Organizational Behavior and Human Decision Processes*, 89(1), 906-924.
- Lai, A. W. (1995). Consumer values, products benefits and customer value: A consumption behavior approach. *Advances in Consumer Research*, 22(1), 381-388.
- Lam, S. Y. Shankar, V., Erramilli, M. K., and Murthy, B. (2004). Customer value, satisfaction, loyalty, and switching costs: An illustration from a business-to-business service context. *Journal of the Academy of Marketing Science*, 32(3), 293-311.
- Langeard, E., Bateson, J. E. G., Lovelock, C. H., and Eiglier, P. (1981). Services Marketing: new insights from consumers and managers, Report No. 81-104, Marketing Science Institute, Cambridge, MA (August).

- Lapierre, J. (2000). Customer-perceived value in industrial contexts. *Journal of Business and Industrial Marketing*, 15(2/3), 122-140.
- Larsson, R. and Bowen, D. E. (1989). Organization and customer: managing design and coordination of services. *Academy of Management Review*, 14(2), 213-233.
- Lavelle, J. J., Rupp, D. E., and Brockner, J. (2007). Taking a mulifoci approach to the study of justice, social exchange, and citizenship behavior: The target similarity model. *Journal of Management*, 33(6), 841-866.
- Lee, C. K., Yoon, Y. S., and Lee, S. K. (2007). Investigating the relationships among perceived value, satisfaction, and recommendations: The case of the Korean DMZ. *Tourism Management*, 28(1), 204-214.
- LePine, J. A. and Van Dyne, L. (2001). Voice and cooperative behavior as contrasting forms of contextual performance: evidence of differential relationships with Big Five personality characteristics and cognitive ability. *Journal of Applied Psychology*, 86(2), 325-336.
- Li, N., Liang, J., and Crant, J. M. (2010). The role of proactive personality in job satisfaction and organizational citizenship behavior: A relational perspective. *Journal of Applied Psychology*, 95(2), 395-404.
- Lind, E. A. (2001). Thinking critically about justice judgments. *Journal of Vocational Behavior*, 58(2), 220-226.
- Lind, E. A. and Tyler, T. R. (1988). *The social psychology of procedural justice*. New York: Plenum Press.
- Lovelock, C. H. (1983). Classifying services to gain strategic marketing insights. *Journal of Marketing*, 47(3), 9-20.
- Lusch, R. F., Vargo, S. L., and Malter, A. (2006). Marketing as service exchange: Taking a leadership role in global marketing management. *Organizational Dynamics*, 35(3), 264-278.
- Lusch, R. F. and Vargo, S. L. (2006). Service-dominant logic: Reactions, reflections, and refinements, *Marketing Theory*, 6(3), 281-288.
- Lusch, R. F., Vargo, S. L., and Wessels, G. (2008). Toward a conceptual foundation for service science: Contributions from service-dominant logic. *IBM Systems Journal*, 47(1), 5-14.
- Masterson, S. S., Lewis, K., Goldman, B. M., and Taylor, M. S. (2000). Integrating justice and social exchange: The differing effects of fair procedures and treatment on work relationships. *Academy of Management Journal*, 43, 738-748.
- Mathwick, C., Malhotra, N. K., and Rigdon, E. (2001). Experiential value: conceptualization,



- measurement and application in the catalog and Internet shopping environment. *Journal of Retailing*, 77(1), 39-56.
- Mathwick, C., Malhotra, N. K., and Rigdon, E. (2002). The effect of dynamic retail experiences on experiential perceptions of value: An Internet and catalog comparison. *Journal of Retailing*, 78(1), 51-60.
- Matos, C. A. de, Rossi, C. A. V., Veiga, R. T., and Vieira, V. A. (2009). Consumer reaction to service failure and recovery: the moderating role of attitude toward complaining. *Journal of Service Marketing*, 23(7), 462-475.
- Martin, D., O'Neil, M., Hubbard, S., and Palmer, A. (2008). The role of emotion in explaining consumer satisfaction and future behavioral intention. *Journal of Service Marketing*, 22(3), 224-236.
- Maxham, J. G. III (2001). Service recovery's influence on consumer satisfaction, positive word-of-mouth, and purchase intentions. *Journal of Business Research*, 54(1), 11-24.
- Maxham, J. G. III and Netemeyer, R. G. (2003). Firms reap what they sow: The effects of employee shared values and perceived organizational justice on customer evaluations of complaint handling. *Journal of Marketing*, 67(1), 46-62.
- McCollough, M. A., Berry, L. L. and Yadav, M. S. (2000). An empirical investigation of customer satisfaction after service failure and recovery. *Journal of Service Research*, 3(2), 121-37.
- McCrae, R. R. and Costa, P. T. Jr. (1991). Adding *Liebe und Arbeit*: the full five-factor model and well-being. *Personality and Social Psychology Bulletin*, 17(2), 227-232.
- McDougall, G. H. and Levesque, T. (2000). Customer satisfaction with services: Putting perceived value into the equation. *Journal of Services Marketing*, 14(5), 392-410.
- McKee, D., Simmers, C. S., and Licata, J. (2006). Customer self-efficacy and response to service. *Journal of Service Research*, 8(3), 207-220.
- McMillan, D. W., and Chavis, D. M. (1986). Sense of community: A definition and theory. *Journal of Community Psychology*, 14(1), 6-23.
- Meuter, M. L., Bitner, M. J., Ostrom, A. L., and Brown, S. W. (2005). Choosing among alternative service delivery modes: An investigation of customer trial of self-service technologies. *Journal of Marketing*, 69(2), 61-83.
- Meyer, J. R. and Allen, N. J. (1991). A three-component conceptualization of organizational commitment. *Human Resource Management Review*, 1(1), 61-89.

- Meyer, J. P., Allen, N. J., and Smith, C. A. (1993). Commitment to the organization and occupations: Extension and test of a three-component conceptualization. *Journal of Applied Psychology*, 78(4), 538-551.
- Meyer, J. P., Stanley, D. J., Herscovitch, L., and Topolnytsky, L. (2002). Affective, continuance, and normative commitment to the organization: A meta-analysis of antecedents, correlates and consequences. *Journal of Vocational Behavior*, 61(1), 20-52.
- Midili, A. R. and Penner, L. A. (1995). *Dispositional and environmental influences on organizational citizenship behavior*. Paper presented at the meeting of the American Psychological Association, New York.
- Mitchell, T. R. (1982). Motivation: New directions for theory, research, and practice. *The Academy of Management Review*, 7(1), 80-88.
- Mohr, L. A. and Bitner, M. J. (1995). The role of employee effort in satisfaction with service transactions. *Journal of Business Research*, 32(3), 239-252.
- Moorman, R. H. (1991). Relationship between organizational justice and organizational citizenship behaviors: Do fairness perceptions influence employee citizenship?. *Journal of Applied Psychology*, 76(6), 845-855.
- Motowidlo, S. J. and Van Scotter, J. R. (1994). Evidence that task performance should be distinguished from contextual performance. *Journal of Applied Psychology*, 79(4), 475-480.
- Mount, M. K. and Barrick, M. R. (1995). The Big Five personality dimensions: Implications for research and practice in human resources management. In G.R. Ferris (Ed.), *Research in personnel and human resources management* (13, 153-200). JAI Press.
- Mount, M. K., Barrick, M. R., and Stewart, G. L. (1998). Five-factor model of personality and performance in jobs involving interpersonal interactions. *Human Performance*, 11, 145-165.
- Nadir, H, and Tanova, C (2010). An investigation of the role of justice in turnover intentions, job satisfaction, and organizational citizenship behavior in hospitality industry. *International Journal of Hospitality Management*, 29(1), 33-41.
- Namkung, Y. and Jang, S. (2007). Does food quality really matter in restaurants? Its impact on customer satisfaction ad behavioral intentions. *Journal of Hospitality and Tourism Research*, 31(3), 387-410.
- Naylor, G. (1996). *How consumers determine value: A new look at inputs and process*. Unpublished doctoral dissertation, The University of Arizona, Tucson, AZ.
- Neal, A. Griffin, M. A., and Hart, P. M. (2000). The impact of organizational climate on safety climate and individual behavior. *Safety Science*, 34(1-3), 99-109.

- Nsairi, Z. B. (2012). Managing browsing experience in retail stores through perceived value: Implications for retailers. *International Journal of Retail and Distribution Management*, 40(9), 676-698.
- Oh, H. (1999). Service quality, customer satisfaction, and customer value: A holistic perspective. *International Journal of Hospitality Management*, 18(1), 67-82.
- Ok, C., Back, K., and Shanklin, C. W. (2005). Modeling roles of service recovery strategy: A relationship-focused view. *Journal of Hospitality and Tourism Research*, 29(4), 484-507.
- Oliver, R. L. and Swan, J. E. (1989). Consumer perceptions of interpersonal equity and satisfaction in transactions: A field survey approach. *Journal of Marketing*, 53(2), 21-35.
- Oliver, R. L. (1993). A conceptual model of service quality and service satisfaction: Compatible goals, different concepts, in *Advances in Services Marketing and Management*, 2, Teresa A. Swartz, David E. Bowen, and Stephen W. Brown, eds., JAI Press, Greenwich, CT. 65-85.
- Oliver, R. L. (1997). *Satisfaction: A Behavioral Perspective on the Consumer*, New York: McGraw-Hill.
- Oliver, R. L. and Swan, J. E. (1989). Consumer perceptions of interpersonal equity and satisfaction in transactions: A field survey approach. *Journal of Marketing*, 53(2), 21-35.
- O'Reilly, C. A. and Chatman, J. A. (1986). Organizational commitment and psychological attachment: The effects of compliance, identification and internalization on prosocial behavior. *Journal of Applied Psychology*, 71(3), 492-499.
- Organ, D. W. (1988). *Organizational citizenship behavior: The good soldier syndrome*. Lexington, MA: Lexington Books.
- Organ, D. W. (1990). The motivational basis of organizational citizenship behavior. In B.M. Staw and L.L. Cummings (Eds.), *Research in organizational behavior*, 12, 43-72. Greenwich, CT: JAI.
- Organ, D. W. (1994). Personality and organizational citizenship behavior. *Journal of Management*, 20(2), 465-478.
- Organ, D. W. and McFall, J. B. (2004). Personality and citizenship behavior in organizations, in Smith, B.S.D.B. (Ed.), *Personality and Organizations*, Lawrence Erlbaum, Mahwah, NJ, 291-316.
- Organ, D. W. and Lingl, A. (1992). Personality, satisfaction, and organizational citizenship behavior. Paper presented at Academy of Management meetings, Las Vegas, NE.
- Organ, D. W. and Ryan, K. (1995). A meta-analytic review of attitudinal and dispositional

- predictors of organizational citizenship behavior. *Personnel Psychology*, 48(4), 775-802.
- Overby, J. W. (2000). *The impact of national culture upon the customer value hierarchy: A comparison between French and American consumers*. Unpublished doctoral dissertation, The University of Tennessee, Knoxville.
- Parboteeah, K. P. and Kapp, E. A. (2008). Ethical climates and workplace safety behaviors: An empirical investigation. *Journal of Business Ethics*, 80(3), 515-529.
- Parker, S. K. (1998). Enhancing role breadth self-efficacy: The roles of job enrichment and other organizational interventions. *Journal of Applied Psychology*, 83(6), 835-852.
- Parker, S. K., Williams, H., and Turner, N. (2006). Modeling the antecedents of proactive behavior at work. *Journal of Applied Psychology*, 91(3), 636-652.
- Patterson, P. G. and Smith, T. (2001). Modeling relationship strength across service types in a south-east Asian context. *International Journal of Service Industry Management*, 12(2), 90-113.
- Patterson, P. G., and Smith, T. (2003). A cross-cultural study of switching barriers and propensity to stay with service providers. *Journal of Retailing*, 79(2), 107-120.
- Patterson, P. G. and Spreng, R. A. (1997). Modeling the relationship between perceived value, satisfaction, and repurchase intentions in a business-to-business, service context: An empirical examination. *International Journal of Service Industry Management*, 8(5), 414-434.
- Penner, L. A. (2002). Dispositional and organizational influences on sustained volunteerism: An interactionist perspective. *Journal of Social Issues*, 58(3), 447-467.
- Penner, L. A., Fritzsche, B. A., Craiger, J. P., and Freifeld, T. R. (1995). Measuring the prosocial personality. In J. Butcher and C.D. Spielberger (Eds.), *Advances in personality assessment*, 10, 147-164. Hillsdale, NJ: Erlbaum.
- Penner, L. A., Midili, A. R., and Kegelmeyer, J. (1997). Beyond job attitudes: A personality and social psychology perspective on the causes of organizational citizenship behavior. *Human Performance*, 10(2), 111-132.
- Petrick, J. F. (2004). The roles of quality, value, and satisfaction in predicting cruise passengers' behavioral intentions. *Journal of Travel Research*, 42(4), 397-407.
- Podsakoff, P. M., MacKenzie, S. B., Paine, J. B., and Bachrach, D. G. (2000). Organizational citizenship behaviors: A critical review of the theoretical and empirical literature and suggestions for future research. *Journal of Management*, 26(3), 513-563.

- Puri, S., Adams, V., Ivey, S., and Nachtigall, R. D. (2011). There is such a thing as too many daughters, but not too many sons: A qualitative study of son preference and fetal sex selection among Indian immigrants in the United States. *Social Science and Medicine*, 72(7), 1169–1176.
- Rank, J., Carsten, J. M., Unger, J. M., and Spector, P. E. (2007). Proactive customer service performance: relationship with individual, task, and leadership variables. *Human Performance*, 20(4), 363-390.
- Reynolds, K. E. and Beatty, S. E. (1999). Customer benefits and company consequences of a retail-customer relationship. *Journal of Retailing*, 75(1), 11-32.
- Rhoades, L. and Eisenberger, R. (2002). Perceived organizational support: A review of the literature. *Journal of Applied Psychology*, 87, 698-714.
- Rioux, S., and Penner, L. A. (2001). The causes of organizational citizenship behavior: A motivational analysis. *Journal of Applied Psychology*, 86(6), 1306-1314.
- Robins, R. W., Hendin, H. M., and Trzesniewski, K. H. (2001). Measuring global self-esteem: Construct validation of a single item measure and the Rosenberg Self-Esteem scale. *Personality and Social Psychology Bulletin*, 27(2), 151-161.
- Rodie, A. R., and Kleine, S. S. (2000). *Customer participation in services production and delivery*. In T. A. Swartz and D. Iacobucci (Eds.), *Handbook of services marketing and management*: 111-125. Thousand Oaks, CA: Sage.
- Rogers, E. M. (1995). *Diffusion of innovations*. (4th ed.). New York: Free Press
- Roggeveen, A. L., Tsiros, M., and Grewal, D. (2012). Understanding the co-creation effect: When does collaborating with customers provide a lift to service recovery?. *Journal of the Academy Marketing Science*, 40(6), 771-790.
- Rupp, D. E. and Cropanzano, R. (2002). The mediating effects of social exchange relationships in predicting workplace outcomes from multifoci organizational justice. *Organizational Behavior and Human Decision Processes*, 89(1), 925-946.
- Schillewaert, N. and Meulemeester, P. (2005). Comparing response distributions of offline and online data collection methods. *International Journal of Market Research*, 47(2), 163-178.
- Sen, S., Bharracharya, C. B., and Korschun, D. (2006). The role of corporate social responsibility in strengthening multiple stakeholder relationships: A field experiment. *Journal of the Academy of Marketing Science*, 34(2), 158-166.
- Segars, A. H. and Grover, V. (1993). Re-examining perceived ease of use and usefulness: A confirmatory factor analysis. *MIS Quart*, 17(4), 517-529.

- Shankar, V., Smith, A. K., and Rangaswamy, A. (2003). Customer satisfaction and loyalty in Online and offline environments. *International Journal of Research in Marketing*, 20(2), 153-175.
- Sharma, N. and Patterson, P. G. (1999). A model of relationship commitment among professional services. *Journal of Services Marketing*, 13(2), 151-170.
- Sheth, J. N., Newman, B. I., and Gross, B. L. (1991). Consumption values and market choices. Cincinnati, OH: South-Western.
- Shore, L., Tetrick, L. E., Lynch, P., and Barksdale, K. (2006). Social and economic exchange: Construct development and validation, *Journal of Applied Social Psychology*, 36(4), 837-867.
- Seibert, S. E., Crant, J. M., and Kraimer, M. L. (1999). Proactive personality and career success. *Journal of Applied Psychology*, 84(3), 416-427.
- Smith, C. A., Organ, D. W., and Near, J. P. (1983). Organizational citizenship behaviors: Its nature and antecedents. *Journal of Applied Psychology*, 68(4), 653-663.
- Smith, A. K. and Bolton, R. N. (1998). An experimental investigation of customer reactions to service failure and recovery encounters: Paradox or peril?. *Journal of Service Research*, 1(1), 65-81.
- Smith, J. B. and Colgate, M. (2007). Customer value creation: A practical framework. *Journal of Marketing Theory and Practice*, 15(1), 7-23.
- Steenkamp, J-B. E.M., and Baumgartner, H. (1998). Assessing measurement invariance in cross-national consumer research. *Journal of Consumer Research*, 25, 78-90.
- Stephenson, W. (1953). The study of behavior; Q-technique and its methodology. Chicago: University of Chicago Press.
- Sue, V. M. and Ritter, L. A. (2007). *Conducting online surveys*. Sage Publications, Thousand Oaks CA.
- Sun, L. Y., Aryee, S., and Law, K. (2007). High-performance human resource practices, citizenship behavior, and organizational performance: A relational perspective. *Academy of Management Journal*, 50(3), 558-577.
- Sweeney, P. D. and McFarlin, D. B. (1993). Workers' evaluation of the "ends" and the "means": An examination of four models of distributive and procedural justice. *Organizational Behavior and Human Decision Process*, 55(1), 23-40.
- Sweeney, J. C. and Soutar, G. N. (2001). Consumer perceived value: the development of a

- multiple item scale. *Journal of Retailing*, 77(2), 203-220.
- Tan, H. H., Foo, M. D., and Kwek, M. H. (2004). The effects of customer personality traits on the display of positive emotions. *Academy of Management Journal*, 47(2), 287-296.
- Tang, J. E. and Chiang, C. (2010). Integrating experiential value of blog use into the expectation-confirmation theory model. *Social Behavior and Personality*, 38(10), 1377-1390.
- Tauber, E. M. (1972). Why do people shop? *Journal of Marketing*, 36(4), 46-49.
- Taylor, J. W. (1974). The role of risk in consumer behavior. *Journal of Marketing*, 38(2), 54-60.
- Taylor, S. A. and Baker, T. L. (1994). An assessment of the relationship between service quality and customer satisfaction in the formation of consumers' purchase intentions. *Journal of Retailing*, 70(2), 163-178.
- Thibaut, J., and Walker, L. (1975). *Procedural justice: A psychological analysis*. Hillsdale, NJ: Erlbaum.
- Tian, K. T., Bearden, W. O. and Hunter, G. L. (2001). Consumers' need for uniqueness: Scale development and validation. *Journal of Consumer Research*, 28(1), 50-66.
- Tobin, R. M., Graziano, W. G., Vanman, E. J., and Tassinary, L. G. (2000), Personality, emotional experience, and efforts to control emotions, *Journal of Personality and Social Psychology*, 79(4), 656-669.
- Trochim, W. M. (2006). Nonprobability sampling, <http://www.socialresearchmethods.net/kb/samprnon.htm> (accessed 04.05.07)
- Tse, D. K. and Wilton, P. C. (1988). Models of satisfaction formation: An extension. *Journal of Marketing Research*, 25(2), 204-221.
- Tsiotsou, R. (2006). Using visit frequency to segment ski resorts customers. *Journal of Vacation Marketing*, 12(1), 15-26.
- Tupes, E. C. and Christal, R. E. (1961). *Recurrent personality factors based on trait ratings* (ASD-TR-61-97). Lackland Air Force Base, TX: Aeronautical Systems Division, Personnel Laboratory.
- Tyler, T., DeGoey, P., and Smith, H. (1996). Understanding why the justice of group procedures matters: A test of the psychological dynamics of the group-value model. *Journal of Personality and Social Psychology*, 70(5), 913-930.
- U.S. Census Bureau (2000). Profile of selected social characteristics: 2000. Retrieved April 2, 2010 from <http://www.census.gov>

- Vandenberghe, C. and Bentein, K. (2009). A closer look at the relationship between affective commitment to supervisors and organizations and turnover. *Journal of Occupational and Organizational Psychology*, 82(2), 331-348.
- Van Dyne, L., Graham, J. W., and Dienesch, R. M. (1994). Organizational citizenship Behavior: Construct redefinition, measurement, and validation. *Academy of Management Journal*, 37(4), 765-802.
- Vargo, S. L. and Lusch, R. F. (2004a) Evolving to a new dominant logic for marketing. *Journal of Marketing*, 68(1), 1-17.
- Vargo, S. L. and Lusch, R. F. (2004b). The four service marketing myths: Remnants from a manufacturing model. *Journal of Service Research*, 6(4), 324-335.
- Vargo, S. L. and Lusch, R. F. (2006). *Service-Dominant Logic: What It Is, What It Is Not, What It Might Be*, in R.F. Lusch and S.L. Vargo (eds) *The Service-Dominant Logic of Marketing: Dialog, Debate, and Directions*, 43-56. Armonk, NY: ME Sharpe.
- Vargo, S. L., Maglio, P. P., and Akaka, M. A. (2008). On value and value co-creation: A service system and service logic perspective. *European Management Journal*, 26(3), 145-152.
- Vey, M. A. and Campbell, J. P. (2004). In-role or extra-role organizational citizenship behavior: Which are we measuring?. *Human Performance*, 17(1), 119-135.
- Wagner, T. (2007). Shopping motivation revised: A means-end chain analytical perspective. *International Journal of Retail and Distribution Management*, 35(7), 569-582.
- Wang, M., and Russell, S. S. (2005). Measurement equivalence of the job descriptive index across Chinese and American workers: Results from confirmatory factor analysis and item response theory. *Educational and Psychological Measurement*, 65, 709-732.
- Weiss, H. M. and Adler, S. (1990). *Personality and organizational behavior*. 1-50 in B. M. Staw and L.L. Cummings (Eds.), *Personality and organizational influence*. Greenwich, CT: JAI Press.
- Westaby, J. D. (2006). How different survey techniques can impact consultant recommendations: A scientist-practitioner study comparing two popular methods. *Consulting Psychology Journal: Practice and Research*, 58(4), 195-205.
- Westbrook, R. A. and Black, W. C. (1985). A motivation-based shopper typology. *Journal of Retailing*, 61, 78-103.
- Williams, S, Pitre, R., and Zainuba, M. (2002). Justice and Organizational Citizenship Behavior Intentions: Fair Rewards versus Fair Treatment. *Journal of Social Psychology*, 142(1), 33-44.



- Woodruff, R. B. (1997). Customer value: The next source for competitive advantage. *Journal of the Academy of Marketing Science*, 25(2), 139-153.
- Wright, C. W. and Sablinski, C. J. (2008). Procedural justice, mood, and prosocial personality influence on organizational citizenship behavior. *North American Journal of Psychology*, 10(2), 397-411.
- Wu, C. H. and Liang, R. (2009). Effect of experiential value on customer satisfaction with service encounters in luxury-hotel restaurants. *International Journal of Hospitality Management*, 28(4), 586-593.
- Xia, L. and Suri, R. (2014). Trading effort for money: Consumers' co-creation motivation and the pricing of service options. *Journal of Service Research*, 17(2), 229-242.
- Yi, Y. and Gong, T. (2006). The antecedents and consequences of service customer citizenship and badness behavior. *Seoul Journal of Business*, 12(2), 145-176.
- Yi, Y. and Gong, T. (2008). The effects of customer justice perception and affect on customer citizenship behavior and customer dysfunctional behavior. *Industrial Marketing Management*, 37(7), 767-783.
- Yi, Y. and Gong, T. (2013). Customer value co-creation behavior: scale development and validation. *Journal of Business Research*, 66(9), 1279-1284.
- Yuan, Y. H. E. and Wu, C. K. (2008). Relationships among experiential marketing, experiential value, and customer satisfaction. *Journal of Hospitality and Tourism Research*, 32(3), 387-410.
- Zaichkowsky, J. L. (1985). Measuring the involvement construct. *The Journal of Consumer Research*, 12, 341-352.
- Zeithaml, V. A. (1988). Consumer perceptions of price, quality, and value: A means-end model and synthesis of evidence. *Journal of Marketing*, 52(3), 35-48.