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**Customer Participation Variation and Its Impact on Customer Service Performance:
Underlying Process and Boundary Conditions**

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Customer Participation Variation and Its Impact on Customer Service Performance: Underlying Process and Boundary Conditions

Abstract

Drawing on the customer participation literature, this research proposes customer participation (CP) variation as the degree to which employees perceive variability across customers with regard to customers sharing information, time, and effort and making suggestions to enhance the service delivery process and outcome. Drawing on the job demands-resources model, this research explicates the mediating process by which CP variation affects customer service performance and its boundary conditions. Study 1 uses data from a field study in the banking industry to show that CP variation negatively influences customer service performance through greater customer-related burnout. The authors show that this mediation process is moderated by contingencies that mitigate or exacerbate the indirect relationship. Study 2 further validates the CP variation construct by testing for discriminant validity against similar and related constructs, such as CP quality, in more diverse service industries (insurance, legal consulting, travel and tourism, healthcare, and physical fitness). Finally, the moderating role of CP quality is examined to provide a more nuanced picture of the intricacies between CP variation and CP quality. The paper concludes with a discussion of the theoretical and practical implications for CP variation research.

Keywords

customer participation, customer participation variation, customer participation quality, burnout, customer service

Customer participation (CP hereafter) is a popular business practice employed in industries ranging from healthcare (Gallan et al. 2013) to financial services (Chan, Yim, and Lam 2010). CP has been shown to positively affect service quality and customer satisfaction when participation readiness is high (Dong et al. 2015) and lead to greater economic and relational value (Chan, Yim, and Lam 2010) and participation enjoyment to customers (Yim, Chan, and Lam 2012). Thus, the consequences of CP to customers have generally been found to be positive.

However, the impact of CP on employees has not been as positive. Although inviting customers into the service delivery process can improve customer engagement and experience, it can also create significant challenges such as lower employee satisfaction due to heightened job stress (e.g., Chan, Yim, and Lam 2010). The CP construct, defined as customer's involvement in the service co-creation and delivery process, has mainly focused on the level of CP (e.g., low vs. high), that is, the quantity of CP. The emphasis has been on CP level or the amount of information, ideas or suggestions that customers share to improve the service process and outcome that will be of assistance in better addressing their needs.

What has received less attention in the extant literature is the dispersion (or variation) of CP across customers for a given service employee. Further, although prior research has examined the effect of CP on employee stress and job satisfaction (Chan, Yim, and Lam 2010), the effect on customer service is still unknown. Therefore, building on the extant CP literature, we introduce CP variation, a construct that captures a service employee's perception of the difference in the level of CP among customers that one serves. More specifically, CP variation is defined as the perceived dispersion in the level of CP across customers in terms of sharing information about their needs and opinions, expressing their personal preferences, providing suggestions for improving service outcomes, and participating in the service process to improve

the service outcome. For example, if service employees A, B, and C each serve 4, 5, 6 customers, respectively, then A, B, and C will each have a CP variation score that captures the spread of CP across the 4, 5, and 6 customers, respectively. Therefore, we conceptualize and operationalize CP variation as an individual level construct. What is still unknown is whether CP variation, after controlling for CP, will negatively affect employees and how they serve customers. CP variation should not be confused with related, but distinct, constructs, such as CP level or CP quality. CP level captures the quantity (amount) of CP (i.e., the mean level of CP, low or high), while CP quality refers to the quality (e.g., usefulness, helpfulness, reliability, accuracy, relevance) of participation. To provide deeper insight into the interplay between quantity and quality of CP, an area that has received sparse attention in the extant literature, our research attempts to address the interaction between CP variation and CP quality.

This lack of research on CP variation is surprising given that participation research is grounded in the understanding of customers as partial employees (e.g., Bitner et al. 1997; Bowen 1986), and it would be unrealistic to expect all customers to participate to similar degrees. As Gallan et al. (2013, p. 338) readily acknowledge, “there is significant variance in the amount of participation that customers apply, and the optimal level may not always be reached. For instance, researchers have found variance in CP levels in healthcare services (Cegala, Street, and Clinch 2007; Street et al. 2005).” As Table 1 illustrates, despite a general recognition that CP variation exists, no study to date has systematically conceptualized or operationalized this variation, let alone its impact on customer service and the underlying process.

[Insert Table 1 here]

We draw on the customer-induced uncertainty literature (e.g., Argote 1982; Chowdhury and Miles 2006; Larsson and Bowen 1989) in general and the CP literature (e.g., Chowdhury and

Endres 2010) in particular to develop a model that delineates the process by which CP variation affects customer service performance. The customer-induced uncertainty literature suggests that customer variability is a key factor that creates uncertainty for service employees (Chowdhury and Endres 2010; Chowdhury and Miles 2006). Further, according to the job demands-resources (JD-R) model (Bakker and Demerouti 2007), customer variability can be viewed as a job demand. For example, it has been shown that nurses experience more job strain under conditions of greater patient variability (Chowdhury and Endres 2010). Therefore, we posit that CP variation is an example of customer variability where the variation is in the level of CP¹. We posit that variation implies less consistency and more fluctuation, and such oscillation and instability makes predicting what to expect from customers difficult. As a result, we argue that CP variation can eventually lead to lower levels of customer service, resulting in diminished customer experience.

Against this backdrop, we contribute to the literature by addressing two gaps that remain unanswered, despite their theoretical and practical significance. First, although CP has shown to affect employee job (dis)satisfaction, little is known about the effect of CP variation on customer service performance and its underlying process. This is important to understand because service employees must often address a range of various customer participation levels and expectations across service encounters, yet the existing focus on CP level alone is unable to capture this variation. Drawing on the theoretical lens of the Job Demands-Resources (JD-R) framework, a model that explains employee's well being and behavior through the job demands and resources within an organization, we introduce CP variation as an employee-level construct and study the

¹ When the CP literature refers to CP, it is assumed to be CP level. Thus, when we state CP in this paper, we refer to CP level, consistent with the literature.

underlying process through which the consequence (e.g., customer service) of CP variation unfolds. From a managerial perspective, there are significant practical implications if customer service performance is compromised due to heightened CP variation. Thus, implementing corrective actions can offer important managerial implications for developing an appropriate strategy to manage such variation. To address this gap in the literature, we posit that customer-related burnout is a mediator that explains how CP variation affects customer service performance.

Second, there is dearth of research in the literature on the conditions under which CP variation differentially affect customer-related burnout and customer service performance. This void is theoretically and managerially important because under certain contingencies, CP variation may lead to more or less customer-related burnout, ultimately affecting customer service performance differently. We show that while some moderators exacerbate, others that are managerially controllable mitigate the impact of CP variation on customer related burnout. For example, our findings indicate that whereas manager emphasis on CP and customer prioritization play an aggravating moderating role, service climate and service employee experience play an alleviating moderating role on the CP variation-customer related burnout relationship. These results support the JD-R framework by showing that while more demand on top of existing demand leads to greater burnout, providing resources to cope with current demand helps to lessen burnout. Therefore, we test moderated mediation models to assess how the mediating role of customer-related burnout is differently influenced under moderators that can mitigate or accentuate the impact of CP variation on customer-related burnout.

In summary, by addressing the previous two gaps, we contribute to the literature by broadening the scope of CP research from level of CP to variation in CP. Figure 1 shows our

conceptual model. We test our hypotheses across two field studies in multiple service industries. In Study 1, we conduct a field survey in the financial sector to examine the customer service performance effect of CP variation and the proposed mediating mechanism, along with boundary conditions. We use nested data (i.e., 606 private bankers from 110 branches) collected from one of the largest banks in Taiwan to test our hypotheses. In Study 2, using data from a diverse range of service industries (insurance, legal consulting, travel and tourism, healthcare, and physical fitness), we test for discriminant validity of CP variation against other related constructs (e.g., CP and CP quality) and test additional interaction effects (e.g., CP variation x CP quality). We conclude with a discussion of theoretical and practical implications for advancing CP research.

[Insert Figure 1 here]

Theoretical Framework

Job Demands-Resources (JD-R) Model

The JD-R model (Bakker and Demerouti 2007; Demerouti et al. 2001) posits that the degree to which employees experience burnout is influenced by job demands and job resources. Job demands are “physical, psychological, social, or organizational aspects of the job that require sustained physical and/or psychological (cognitive and emotional) effort or skills and are therefore associated with certain physiological and/or psychological costs” (Bakker and Demerouti 2007, p. 312). Job demands can result in burnout unless employees are replenished with resources to cope with demands. We posit CP variation as a job demand because service employees will expend emotional labor when interacting with and serving customers.

The JD-R framework defines job resources as the “physical, psychological, social, or organizational aspects of the job that help to either achieve work goals, reduce job demand and the associated physiological and psychological cost or stimulate personal growth and

development” (Bakker and Demerouti 2007, p. 312). Job resources are the tangible or intangible (e.g., emotional) support one receives from his or her organization, supervisor, or coworkers. Resources can also include personal resources (e.g., experience, social networks) that an employee brings to the job that help alleviate the burden of job demands.

According to the JD-R model, employee well-being and outcomes can be explained by a dual process pathway: impairment and motivational. The impairment pathway occurs through demands by influencing strain, burnout, and exhaustion. The motivational pathway occurs through resources by affecting engagement and satisfaction. This dual process mechanism has received strong empirical support in the context of safety at work through a meta analysis (Nahrgang et al. 2011). In addition to this dual process pathway, another key feature of the JD-R model is the interaction between demands and resources. The JD-R model predicts a buffering hypothesis wherein the resources buffer and mitigate the negative impact of demands. In addition to the buffering prediction, we also expect that when a demand is added to another demand, such a joint effect amplifies the negative effect of the original demand. These two predictions (i.e., demand x resource and demand x demand) will be the theoretical underpinning from which we ground our interaction hypotheses.

Overview of the Conceptual Model

Our conceptual model appears in Figure 1. In line with the JD-R framework as our theoretical lens, we examine how resources buffer and neutralize, whereas demands enhance and exacerbate the indirect impact of CP variation on customer service performance via customer-related burnout. We selected customer-related burnout as the mediator because burnout is a common outcome of job demands (Bakker and Demerouti 2007). We also identified several

moderators as either resources (e.g., service climate, job experience, and CP quality) that mitigate or demands (e.g., manager emphasis on CP and customer prioritization) that accentuate the indirect effect of CP variation on customer service performance through customer-related burnout.

We selected the moderators (for Study 1) on the following theoretical grounds. As boundary spanners, service employees are influenced by resources and demands from three key factors: personal, organizational, and customer. We draw from JD-R theory to identify moderating factors from each of these categories within our model. For resources, the objective was to include organizational and personal resources because these are the two types of resources that have been studied most extensively in the extant literature (Bakker and Demerouti 2007). For demands, the objective was to include demands that were organization-related (internally) and customer-related (externally). Although customer-related demands have received less attention than organization-related demands, because customer variability is considered a burden for service employees (Chowdhury and Endres 2010; Chowdhury and Miles 2006), it was important to include a demand that was customer-related. Based on these criteria and in line with the JD-R framework, we selected two resources: a job resource (e.g., service climate) and a personal resource (e.g., job experience). For the two job demands, we chose one that was supervisor-related (e.g., manager emphasis on CP) and one that was customer-related (e.g., customer prioritization). In addition to these theoretical reasons, from a practical perspective, after careful consultation with the firm and taking into consideration the goal of what the firm wanted to achieve with the research, we agreed on the prior four moderators—service climate, job experience, manager emphasis on CP, and customer prioritization—to include in the model. The firm we worked with was in the process of transforming its service business model and

collaborated with us to understand how these four moderators could play an instrumental role in shaping the relationship between CP variation and customer service performance.

Study 1

The Mediating Role of Customer-Related Burnout

We define customer-related burnout as being consistent with feelings of emotional exhaustion, diminished personal accomplishment, and depersonalization due to repeated interactions with customers (Maslach and Jackson 1981; Singh, Goolsby, and Rhoads 1994). Recall that CP variation is an employee-level construct that measures a service employee's perception of CP variation across his or her customers. In trying to manage CP variation, employees will perceive a diminished sense of control, and their job will require more improvised decision making and actions that force them to deviate from predetermined role scripts, leading to a greater sense of burnout. Employees in such circumstances will find it difficult to make accurate predictions and engage in effective planning because not all customers can be expected to participate to similar degrees. Therefore, we posit CP variation as a job demand initiated by customers that can create uncertainty and unease by forcing employees to adapt and improvise, leading to increased customer-related burnout. This prediction is consistent with the JD-R framework, which has documented that job demands lead to more burnout (Bakker and Demerouti 2007).

Further, burnout has been shown to affect employee's psychological conditions (e.g., depression, anxiety) and organizational outcomes such as absence, turnover, engagement, and commitment (Bakker and Demerouti 2007). However, less research has been conducted on whether burnout affects how service employees treat customers. Given our theorizing that CP variation as a job demand influences burnout, we posit that burnout will also result in lower

customer service performance, consistent with the JD-R framework, which asserts that burnout negatively impacts in-role performance. Therefore, we reason that CP variation results in more customer-related burnout, which in turn leads to lower customer service performance.

Consequently, we argue that customer-related burnout mediates the relationship between CP variation and customer service performance.

Hypothesis 1: The relationship between CP variation and customer service performance is mediated by customer-related burnout.

Moderators That Strengthen and Weaken the Indirect Relationship Between CP Variation and Customer Service Performance

Service climate. We define service climate as employees' shared view of the firm's service quality-oriented policies, practices, and procedures and the service quality emphasis they observe via the behaviors that are rewarded, expected, and supported (e.g., de Jong, de Ruyter, and Lemmink 2004; Schneider, White, and Paul 1998). When there is high service climate, employees perceive that management expects employees to demonstrate the appropriate skills to deliver high-quality service and provides the necessary training and resources to facilitate this. According to social information processing theory (Salancik and Pfeffer 1978), employees within the same group, through their social interactions, should interpret their work environment through a uniform lens, thus forming similar perceptions of service climate. Therefore, we position service climate as a group-level construct that taps into employees' collective view of service quality-focused practices and behavior.

Although prior research has attempted to examine the moderating role of coping resources on the role stressors-burnout relationship, findings have been mixed and equivocal (Singh 2000). For example, task control did not show any moderating effect, while supervisor

support revealed conflicting (i.e., both buffering and enhancing effects) moderating results, indicating that more research is needed to better understand the relationship between role stressors and burnout under coping resources (Singh 2000). Nonetheless, because the focus has been on individual-level perceptions of the work environment (e.g., task control and supervisor support), each employee may have divergent views (i.e., some high and some low) on his or her work environment. Such mixed perceptions can obscure the moderating effect and nullify any interaction effects. However, because service climate is a group-level construct that captures employees' shared views, any idiosyncratic perceptions are less likely to be an issue.

In line with extant literature (Menguc et al. 2017), we posit that service climate is an organizational job resource. We reason that service climate is a resource because within service climate employees are rewarded and recognized for providing high-quality service, and service climate enables service employees to cope with job demands by equipping them with the needed support and resources to effectively manage this burden. When CP variation occurs within a high service climate, employees can use the support through the training and resources they receive to mitigate the effect of CP variation on customer-related burnout. Therefore, when CP variation's impact on customer-related burnout is diminished under high service climate, we posit that the negative indirect effect of CP variation on customer service performance through customer-related burnout will be attenuated.

Hypothesis 2: The negative indirect effect of CP variation on customer service performance through customer-related burnout is attenuated when service climate is high (vs. low).

Job experience. We define job experience as the duration a service employee has worked in a customer service position. Service employees with more job experience possess knowledge structures that are enriched, scripts that are more developed and elaborate, and service tactics that

have been improvised and are adaptive (Vredenburg and Bell 2016). Other employees that take on boundary-spanning roles, such as salespeople with high levels of sales experience, have also been shown to possess complex and well-defined scripts that enable them to react appropriately to sales controls (Kohli, Shervani, and Challagalla 1998; Leigh and McGraw 1989). In this regard, we posit that job experience is a personal resource that buffers the impact of CP variation on customer-related burnout. Because more experienced service employees have better-developed scripts for dealing with unexpected, deviant, or divergent customer actions, they will be in a better position to cope with CP variation. Experienced service employees will be able to manage their emotions, mitigate their frustration, and craft their roles to adjust to the uncertainty that has been induced by CP variation. Therefore, when service employees have high (vs. low) levels of job experience, the impact of CP variation on customer-related burnout will be attenuated, and consequently, the indirect effect of CP variation on customer service performance via customer-related burnout will be less negative.

Hypothesis 3: The negative indirect effect of CP variation on customer service performance through customer-related burnout is attenuated when job experience is high (vs. low).

Customer prioritization. We define customer prioritization as the extent to which employees treat customers differently (i.e., prioritizing service to some customers over others) and vary their resource allocation according to the importance of customers (Homburg, Droll, and Totzek 2008). It may be argued that customer prioritization is a resource because prioritization allows employees to be productive by enabling them to allocate their time and effort more efficiently. That is, prioritization allows employees to engage in a more focused targeting approach toward customers. Therefore, employees can align their efforts to customers who participate more and

give priority to such customers, and vice versa. As such, a greater alignment between CP variation and customer prioritization will result in less customer-related burnout.

However, we take the position that when employees engage in customer prioritization, more effort, planning, and discernment are needed, all of which require employees to expend more resources (Bakker and Demerouti 2007). In other words, customer prioritization can be considered a job demand that requires more cognitive (e.g., attentive care and knowledge generation about “blue chip” customers) and emotional (e.g., showing more passion and empathy toward top-tier customers) resources that can collectively drain energy from employees as they engage in varied levels of interaction with customers. Customer prioritization will require more adaptation and consequently more emotional labor as employees switch back and forth between serving low and high priority customers. We advance that a more customized approach to customer service by investing additional time and effort to more important customers and treating them differently from less valuable customers and vice versa will be more demanding than treating customers uniformly in the same manner. Consequently, because both CP variation and customer prioritization are job demands, this combination puts more pressure on employees, leading to greater customer-related burnout (Hobfoll 2001). Therefore, the negative indirect effect of CP variation on customer service performance via customer-related burnout will be greater.

Hypothesis 4: The negative indirect effect of CP variation on customer service performance through customer-related burnout is accentuated when customer prioritization is high (vs. low).

Manager emphasis on CP. We define manager emphasis on CP as a manager’s focus on the importance of CP in the service delivery process and the monitoring of employees’ efforts to this end. We posit that manager emphasis on CP is a job demand because stressing that employees

need to engage customers to participate puts pressure on employees to comply with and fulfill this mandate. In this regard, when managers emphasize CP, this can be considered a manager-initiated job demand.

When managers closely monitor employees' CP efforts, they keep close tabs on employees' behaviors so that they do not deviate from prescribed job functions (Zhou 2003). This creates a situation in which employees feel watched and controlled, resulting in rigid and less creative ways to address issues that may arise from CP. Recall that we have also argued that CP variation is a job demand, but one that is initiated by customers. Our reasoning suggests that customer-related burnout will be elevated when a job demand that originates from customers (i.e., CP variation) is also compounded with a job demand that is initiated by management (i.e., manager emphasis on CP). Therefore, the indirect effect of CP variation on customer service performance via customer-related burnout will be more negative.

Hypothesis 5: The negative indirect effect of CP variation on customer service performance through customer-related burnout is accentuated when manager emphasis on CP is high (vs. low).

Method

Sample and data collection procedure. We collected data from one of the largest banks in Taiwan. Target respondents were 900 private bankers of 175 branches with private banking units. Private bankers offer specialized services to customers, such as investment decision assistance and wealth/asset management. The survey instrument was distributed to private bankers through the bank's internal mailing system. The survey began by explaining the purpose of the study and noted that there were no right or wrong answers for any of the statements they were being asked to respond to and that responses would be kept strictly confidential and would be used for academic research purposes only. The private bankers responded to the survey during

business hours and returned completed surveys in sealed envelopes to the contact person in each branch. These contacts then mailed the completed surveys back to the authors.

We obtained 606 usable surveys (for a 67.3% response rate) from 115 branches (65.7% of the total number of branches). Of the respondents, 65.8% were female, and 75% had a university/college degree. In addition, respondents averaged 37 years of age, had an average banking experience of 9.6 years, and served an average of 96 customers.

Measures. We designed the survey instrument in English, which was then translated into Chinese using the translation and back-translation technique (Brislin 1980). Whenever possible, we used and/or adapted previously used and well-established scales to measure the constructs of our model. Except for the scales assessing CP variation (1 = not at all, 5 = to a great extent) and customer service performance (1 = needs improvement, 5 = excellent), all other constructs were measured with a five-point Likert scale, where 1 = strongly disagree and 5 = strongly agree. By employing scales with different anchors, we attempted to minimize response bias between CP variation, burnout, and customer service performance (e.g., Podsakoff et al. 2003). In the Appendix, we report the multi-item scales used to measure the constructs of the proposed model.

We adapted Chan, Yim, and Lam's (2010) scale of CP to measure CP variation. We asked the private bankers to evaluate the extent to which there was variation across their customers in terms of time spent sharing information about their needs and opinions, expressing their personal needs, providing suggestions for improving service outcomes, and participating in the service process to improve service outcomes. We measured customer-related burnout with a six-item scale from Singh, Goolsby, and Rhoads (1994). We measured customer service performance with a seven-item scale from Liao and Chuang (2007).

In terms of the moderating variables, we measured customer service prioritization with a five-item scale adapted from Homburg, Droll, and Totzek (2008). We measured service climate with four items (Salanova, Agut, and Peiró 2005). We measured manager emphasis on CP with a four-item scale adapted from Chowdhury and Endres (2010). We measured job experience by asking the private bankers to report how long they had been working for the bank (years and months). After checking the raw scores for skewness and kurtosis, we normalized the measure by taking a log-transformation.

We included control variables to avoid omitted-variables bias and to account for alternative variables that may explain additional variance in customer-related burnout and customer service performance. We drew relevant control variables from the literature showing that employee burnout and, in turn, service performance may be affected positively or negatively by a variety of factors, such as demographics, affective states (e.g., positive and negative affectivity) (e.g., Iverson, Olekalns, and Erwin 1998), supervisor–employee relationships (e.g., LMX: Leader Member Exchange) (e.g., Jiang, Law, and Sun 2014), work values (e.g., customer orientation) (e.g., Zablah et al. 2012), work conditions (e.g., number of customers served), and customer-related factors (e.g., customer power) (e.g., Schmitz and Ganesan 2014).

Of the theoretically relevant demographic variables, we included gender (1 = male, 2 = female), age (in years), and education (1 = high school, 2 = undergraduate degree, 3 = graduate degree). We measured positive and negative affect with three-item scales, each borrowed from Iverson, Olekalns, and Erwin (1998). We measured LMX with a seven-item scale (Bauer and Green 1996; Graen and Uhl-Bien 1995; Liden, Wayne, and Stillwell 1993; Scandura and Graen 1984). We measured customer orientation with five items borrowed from Kennedy, Lassk, and Goolsby (2002). We measured customer power with a three-item scale adopted from

Jayachandran, Hewett, and Kaufman (2004). We controlled for job satisfaction, which could affect the level of customer service performance (e.g., Schmitz and Ganesan 2014). We measured job satisfaction with a three-item scale from Fast, Burris, and Bartel (2014). We also entered the number of customers served after log-transforming the raw values. We also controlled for the level of CP and CP initiation that is likely to influence the level of burnout and customer service performance above and beyond the influence of CP variation (e.g., Chan, Yam, and Lim 2010). We measured the level of CP with a five-item scale from Chan, Yam, and Lim (2010) and CP initiation as a dummy variable (0 = voluntarily initiated by customers, 1 = at the private banker's encouragement).

Validity and reliability assessment. We assessed the validity and reliability of our measures by conducting a confirmatory factor analysis (CFA) for all multi-item constructs. The CFA indicated good fit to the data ($\chi^2 = 4669.56$, d.f. = 1574; Tucker–Lewis Index = .900; comparative fit index = .908; root mean square error of approximation = .057). All factor loadings were significant (see Appendix), reliability coefficients were above .70, and the average variance extracted (AVE) scores were higher than .50 (Anderson and Gerbing 1988, Bagozzi and Yi 1988) (see Table 2). The squared intercorrelations (the measurement error-adjusted inter-construct correlations from the CFA model) between two constructs were less than the AVE estimates of the respective two constructs for all pairs of constructs (Voorhees et al. 2016). Overall, these findings support the convergent and discriminant validity of the constructs. In addition, we tested whether CP level and CP variation are distinct constructs by comparing the unconstrained and constrained (i.e., the correlation between constructs was set to 1) models (Anderson and Gerbing 1988). The chi-square difference between the two models was

significant ($\Delta\chi^2 = 257.01$, d.f. = 1, $p < .01$), suggesting that CP level and CP variation are indeed distinct constructs.

[Insert Table 2 here]

Operationalization of constructs. We operationalized all variables, except for service climate, at the individual level (i.e., private banker). There were significant differences across branches in terms of the variables operationalized at the individual level,² which provides statistical justification for the use of multilevel analysis. We entered service climate in the model as a branch-level variable after we created an aggregated score for each branch. The within-branch agreement (median $r_{wg} = .90$) and the reliability of branch-level means (ICC2 = .77) support data aggregation (LeBreton and Senter 2008).

We implemented two centering procedures when testing the model: grand-mean-centering for the individual-level (private banker) variables and group-mean-centering for the branch-level variable. We created the interaction variables by multiplying the mean-centered values of the respective variables.

Model Estimation

We tested our model and its hypothesized relationships by conducting multilevel path analysis in Mplus (Muthén and Muthén 1998–2012). In doing so, we took into consideration the nested

² F-values and ICC1 coefficients (interclass correlation, a measure of non-independence) were as follows: CP variation ($F(114, 491) = 1.716$, $p < .01$; ICC1 = .36), customer participation ($F(114, 491) = 2.037$, $p < .01$; ICC1 = .33), burnout ($F(114, 491) = 2.195$, $p < .01$; ICC1 = .48), customer service performance ($F(114, 491) = 3.839$, $p < .01$; ICC1 = .35), customer power ($F(114, 491) = 2.760$, $p < .01$; ICC1 = .30), customer orientation ($F(114, 491) = 3.284$, $p < .01$; ICC1 = .30), LMX ($F(114, 491) = 3.775$, $p < .01$; ICC1 = .35), job satisfaction ($F(114, 491) = 2.408$, $p < .01$; ICC1 = .21), positive affectivity ($F(114, 491) = 2.528$, $p < .01$; ICC1 = .22), negative affectivity ($F(114, 491) = 1.848$, $p < .01$; ICC1 = .14), manager emphasis on CP ($F(114, 491) = 1.853$, $p < .01$; ICC1 = .29), service climate ($F(114, 491) = 2.319$, $p < .01$; ICC1 = .34), and customers prioritization ($F(114, 491) = 3.618$, $p < .01$; ICC1 = .26).

nature of our data and tested the hypothesized relationships simultaneously. However, before we tested the model's hypothesized relationships, we took necessary steps to control for common method bias and endogeneity bias.

Correction for common method bias. Although the interaction effects are less likely to be affected by common method bias (e.g., Evans 1985; Siemsen, Roth, and Oliveira 2010), cross-sectional data may raise concerns regarding the level of bias in inflating (or deflating) the estimated effects. However, the unmeasured common factor technique (Podsakoff et al. 2003) we employed to assess the level of common method bias indicated a significant difference ($\Delta\chi^2 = 559.87, \Delta d.f. = 59, p < .01$) between the measurement model and the common factor model. Therefore, we controlled for common method bias while estimating the model. That is, we performed regression-based data imputation technique in AMOS to obtain the predicted value of the unmeasured latent method factor. This technique treats latent method factor as an extreme case of missing data in which every observation on the variable is missing. In regression imputation, the common factor model is first estimated using maximum likelihood. Subsequently, model parameters are set equal to their maximum likelihood estimates and linear regression is used to predict the unobserved values for each case as a linear combination of the observed values for that same case (AMOS User's Guide 23.0). We used these predicted values to control for common method bias while estimating the proposed model.

Correction for endogeneity. The level of CP variation might be influenced by a set of unobserved factors that may be correlated with the error term of burnout and customer service performance. In other words, CP variation may well be endogenous to other variables that are not considered

in the proposed model, which could bias the model's estimation. We took the control function approach to correct for endogeneity bias (Petrin and Train 2010). We introduced branch-level variation in CP as an additional control variable, which was significantly correlated with CP variation but was not correlated with burnout and customer service performance. We computed the residual for CP variation by regressing CP variation against this new control variable along with other control variables such as customer power and customer orientation. As a result, CP variation became uncorrelated with the error term in burnout and customer service performance. We then entered the residual of CP variation in the model along with all the other variables, through which we controlled for endogeneity bias.

Results

The direct-effects-only model (Table 3, Model 1) shows that CP variation is related positively to customer-related burnout ($\gamma = .072, p < .01$). In addition, burnout is related significantly to customer service performance ($\gamma = -.124, p < .01$). Adding a direct path from CP variation to customer service performance did not result in a significant increase in model fit over Model 1. The mediation model indicated that (1) CP variation is related to customer-related burnout ($\gamma = .072, p < .01$), (2) burnout is related to service performance ($\gamma = -.130, p < .01$), but (3) CP variation is not related to customer service performance ($\gamma = .037, ns$). We also computed the indirect effects of CP variation on customer service performance to assess the nature of the mediating role of burnout (e.g., Zhao, Lynch, and Chen 2010). The indirect effect of CP variation on customer service performance ($\gamma = -.009, p < .01$; 95% bias-corrected bootstrap confidence interval [CI] $[-.023, -.002]$) was significant. Accordingly, customer-related burnout

serves as an indirect-only mediator in the relationship between CP variation and customer service performance. These results support Hypothesis 1.

Next, we introduced the interaction effects into the model. In addition, we tested the conditional effects (i.e., ± 1 standard deviation above the mean value) of the moderating variables (Preacher, Zhang, and Zyphur 2016) and plotted the significant interaction effects (see Figures 2a–2d).

[Insert Figure 2a-2d here]

Table 3 (Model 2) indicates that the interaction of CP variation and service climate is related negatively to customer-related burnout ($\gamma = -.111, p < .05$). Table 4 reports that the CP variation–burnout relationship is more positive ($\gamma = .137, p < .01$) at low service climate levels than at high service climate levels ($\gamma = .025, ns$). Furthermore, the negative indirect effect of CP variation on customer service performance through burnout is less negative when service climate is high ($\gamma = -.003, ns$) than when it is low ($\gamma = -.018, p < .01$), with a significant difference between the two levels ($\gamma = .015, p < .05$). These results support Hypothesis 2.

[Insert Tables 3 and 4 here]

The interaction of CP variation and job experience is negatively related to customer-related burnout ($\gamma = -.165, p < .01$). CP variation is related positively to burnout ($\gamma = .159, p < .01$) at low levels of experience, while the relationship is not significant ($\gamma = .002, ns$) at high levels of experience. The negative indirect effect of CP variation on customer service performance through burnout is less negative when job experience is high ($\gamma = .001, ns$) than when it is low ($\gamma = -.022, p < .01$), with a significant difference between the two levels ($\gamma = .021, p < .05$). These results support Hypothesis 3.

The interaction of CP variation and customer prioritization is positively related to customer-related burnout ($\gamma = .160, p < .01$). The relationship between CP variation and burnout is not significant ($\gamma = -.005, ns$) at low levels of customer prioritization, but is positive ($\gamma = .166, p < .01$) at high levels of customer prioritization. Moreover, the negative indirect effect of CP variation on customer service performance through burnout is more negative when customer prioritization is high ($\gamma = -.022, p < .01$) than when it is low ($\gamma = .001, ns$), with a significant difference between the two levels ($\gamma = -.020, p < .05$). These results support Hypothesis 4.

Finally, the interaction of CP variation and manager emphasis on CP is positively related to customer-related burnout ($\gamma = .072, p < .05$). The CP variation–burnout relationship is significant ($\gamma = .133, p < .01$) at high levels of emphasis on CP, while the relationship is not significant ($\gamma = .028, ns$) at low levels of emphasis on CP. The negative indirect effect of CP variation on customer service performance through burnout is more negative when manager emphasis on CP is high ($\gamma = -.018, p < .01$) than when it is low ($\gamma = -.004, ns$), with a significant difference between the two levels ($\gamma = -.014, p < .01$). These results support Hypothesis 5.

Robustness check. We conducted four additional tests to check the model's robustness. First, we tested the full model by excluding the control variables. We found that the significant direct, mediation, and moderation effects were not an artifact of the control variables. Second, entering each interaction effect into the model individually did not change the significance level of that interaction effect, suggesting that significance of the interaction effects was independent from one another. Third, we checked whether the interaction effect of CP variation with other variables, such as customer orientation, customer power, and LMX, were related significantly to burnout. We found no significant interaction effects on burnout. Finally, we considered the

possibility that CP might act as a moderator in the CP variation–burnout relationship. We found that the interaction effect of CP and CP variation was not related significantly to burnout.

Motivation for Study 2

While Study 1 focused on the quantity of CP from a variation and level perspective, an important but related aspect of CP was excluded, namely the quality of CP. In Study 2, we include CP quality, defined as the usefulness, helpfulness, reliability, accuracy, or relevance of CP, as a resource that moderates the effect of CP variation on customer-related burnout. We deemed it important that our model include a moderator that is CP related yet functions as a resource that will mitigate the impact of CP variation on customer related burnout. In order to obtain a more complete and thorough view of CP, we hold that it is necessary to study CP from both a quantity and quality perspective. Therefore, we examine the interaction between CP variation and CP quality on customer-related burnout. Another goal of Study 2 was to further test for the discriminant validity of CP variation against related constructs such as CP and CP quality. To address these goals, we conducted a survey across multiple service industries (insurance, legal consulting, travel and tourism, healthcare, and physical fitness) beyond financial services, which was the focus of Study 1.

Study 2

Interaction between CP variation and CP quality

Whereas CP variation and CP focus on the quantity of CP, CP quality underscores the usefulness, helpfulness, reliability, accuracy, or relevance of CP from a quality perspective. Consistent with the JD-R model, while CP variation is a demand, we posit CP quality as a resource because high-quality participation improves the service process and outcome. Earlier in H1, we argued that CP

variation reduces employees' sense of control, requires more improvised decision making, increases deviations from role scripts, and makes it difficult to make accurate predictions and engage in effective planning, which collectively lead to more burnout. However, when customers share helpful, accurate, reliable, and relevant information with service employees (indications of high CP quality), this will attenuate the effect of CP variation on burnout because such high CP quality enables employees to improve the service process and ultimately deliver a service outcome that effectively addresses customers' preferences. Therefore, the positive effect of CP variation on burnout will be mitigated as CP quality increases. This suggests that the indirect effect of CP variation on customer service performance via burnout will be less negative when CP quality is high (vs. low). Formally, we hypothesize the following:

Hypothesis 6: The negative indirect effect of CP variation on customer service performance through customer-related burnout is attenuated when CP quality is high (vs. low).

Method

Sample and data collection procedure. Following the same procedure as in Study 1, we collected data from 58 branches of 7 Turkish firms operating in the insurance, legal services, travel and tourism, healthcare, and physical fitness industries. We obtained 250 usable service employee surveys (a response rate of 53.9%) from 42 branches (a response rate of 72.4%). Of the respondents, 78.4% were male, 62% had a university/college degree, average age was 36 years, and average work experience was 12.36 years.

Survey and measures. We designed the survey in English and then translated it into Turkish using the translation and back-translation technique (Brislin 1980). The survey instrument

comprised multi-item scales and self-report questions that assessed the focal constructs (i.e., CP variation, CP quality, burnout, and customer service performance) and the control variables (i.e., age, gender, education, experience, LMX, customer orientation, customer power, CP level, and CP initiation). Except for CP quality, we measured all multi-item scales and self-report questions using the same scales as in Study 1. We developed a five-item, five-point Likert scale (1 = strongly disagree, 5 = strongly agree) to measure CP quality (see Appendix).

Measure validation. We conducted a CFA to assess the validity and reliability of the multi-item scales. The CFA indicated good fit to the data ($\chi^2 = 1908.97$, d.f. = 909; Tucker–Lewis index = .900; comparative fit index = .908; root mean square error of approximation = .067). All factor loadings were significant (see Appendix), and composite reliability coefficients and the AVE scores exceeded their thresholds (see Table 5). As in Study 1, the squared intercorrelations between two constructs were less than the AVE estimates of the respective two constructs for all pairs of constructs (Voorhees et al. 2016). Overall, these findings support the convergent and discriminant validity of the constructs. As in Study 1, we further examined the discriminant validity of CP level, CP variation, and CP quality. Taking into consideration family error rate chi-squared corrections³ (Voorhees et al. 2016), the chi-square difference between the unconstrained and constrained models for each pair of constructs was significant (CP level-CP variation: $\Delta\chi^2 = 109.74$, Δ d.f. = 1, $p < .01$; CP level-CP quality $\Delta\chi^2 = 96.90$, Δ d.f. = 1, $p < .01$; CP variation-CP quality: $\Delta\chi^2 = 149.35$, Δ d.f. = 1, $p < .01$), supporting the discriminant validity of the three constructs.

³Note that a three-construct model requires three pairwise tests. At $\alpha = .05$, a statistically significant difference between models requires an adjusted p-value of 0.0167 and an adjusted $\chi^2 = 5.73$ versus the standard $\chi^2 = 3.84$ (see Voorhees et al. 2016).

[Insert Table 5 here]

Model Estimation and Results

As in Study 1, we tested the proposed hypotheses by using multilevel path analysis.⁴ We also controlled for common method and endogeneity biases when estimating the model.

As Table 6 (Model 1) indicates, CP variation is related positively to customer-related burnout ($\gamma = .357, p < .01$), and burnout is related negatively to customer service performance ($\gamma = -.131, p < .01$). The mediation model indicates that (1) CP variation is related to customer-related burnout ($\gamma = .357, p < .01$), (2) burnout is related to service performance ($\gamma = -.118, p < .05$), but (3) CP variation is not related to customer service performance ($\gamma = -.106, ns$). The indirect effect of CP variation on customer service performance ($\gamma = -.042, p < .05$; 95% bias-corrected bootstrap confidence interval [CI] $[-.093, -.003]$) is significant. Accordingly, customer-related burnout serves as an indirect-only mediator in the relationship between CP variation and customer service performance. These results support the findings of Study 1.

The interaction between CP variation and CP quality is related negatively to customer-related burnout ($\gamma = -.237, p < .05$) (see Table 6, Model 2). The CP variation–burnout relationship is positive and significant ($\gamma = .494, p < .01$) at low levels of CP quality but not significant at high levels of CP quality ($\gamma = .211, ns$) (see Figure 3). Furthermore, the indirect effect of CP variation on customer service performance through burnout is less negative when

⁴F-values and ICC1 coefficients provided statistical justification for the use of multilevel analysis: CP variation ($F(41,208) = 2.476, p < .01$; $ICC1 = .20$), CP quality ($F(41,208) = 2.100, p < .01$; $ICC1 = .16$), customer participation ($F(41,208) = 1.781, p < .01$; $ICC1 = .12$), burnout ($F(41,208) = 2.406, p < .01$; $ICC1 = .19$), customer service performance ($F(41,208) = 1.718, p < .01$; $ICC1 = .11$), customer power ($F(41,208) = 1.684, p < .01$; $ICC1 = .10$), customer orientation ($F(41,208) = 3.579, p < .01$; $ICC1 = .19$), LMX ($F(41,208) = 1.925, p < .05$; $ICC1 = .11$), job satisfaction ($F(41,208) = 2.472, p < .01$; $ICC1 = .20$).

CP quality is high ($\gamma = -.027$, ns) than when it is low ($\gamma = -.063$, $p < .05$), with a significant difference between the two levels ($\gamma = .036$, $p < .05$). These results support Hypothesis 6.

[Insert Figure 3 here]

General Discussion

Drawing on the JD-R framework, we find broad support for our model across two studies. This research contributes to the CP literature in three important ways. First, we show that CP variation results in lower customer service performance mediated through heightened customer-related burnout. This is an important finding because although the extant literature has found the effect of CP on employee job satisfaction to be mediated by employee job stress (Chan et al. 2010), no research has examined the process by which the effect of CP let alone CP variation on employee's job performance occurs. Our results suggests that even after controlling for CP, CP variation is able to explain customer service performance through increased burnout. Second, we find that the indirect effect of CP variation on customer service performance via customer-related burnout is contingent on customer-, firm-, and supervisor-related contingency factors. Taking such a moderated mediation approach is important because results provide a more nuanced understanding of the conditions under which the effect of CP variation on customer service performance is either strengthened or weakened through increased or decreased customer related burnout. Third, our research studied CP, CP variation, and CP quality (see Table 7). Although extant literature has mainly focused on CP, we posit that in order to obtain a 360 view of CP, it is critical to examine CP from two perspectives: quantity (i.e., level) and quality. Such a dual perspective provides a more complete picture of not only how much participation there is

but also how good the participation is. In the next section, we discuss these findings in greater detail and elaborate how this research extends the CP literature.

[Insert Table 7 here]

Theoretical Implications and Contributions

Consequence of CP variation. In Study 1, using data from the financial services industry, we find that CP variation results in more customer-related burnout. However, more interestingly, our model shows that the relationship between CP variation and burnout is moderated by contingency factors that either buffer or exacerbate the positive impact of CP variation on burnout. CP variation leads to more burnout when customer prioritization and manager emphasis on CP are high and results in less burnout and becomes nonsignificant when service climate, job experience, and CP quality are high. In other words, high service climate, job experience, and CP quality serve to neutralize the deleterious effect of CP variation.

When service climate and a service employee's job experience are high, these function as job and personal resources, respectively, that mitigate or buffer the impact of CP variation on burnout such that CP variation has no detectable effect. Therefore, these resources can be important strategic interventions for organizations to proactively alleviate the adverse effect of CP variation. In an organization with high service climate, employees receive support, training, and incentives to provide better customer service, enabling them to effectively cope with the strain associated with CP variation as a job demand. Furthermore, by leveraging employees who have more job experience, the impact of CP variation on burnout can be neutralized, thus ensuring that customer service is not compromised.

The negative interaction between CP variation and CP quality on burnout found in Study 2 is noteworthy because it suggests that CP can play a dual role, either as a job demand or as a job resource. Even if there is variation among customers in the degree to which customers participate (as in CP variation as a demand), as long as the quality of participation is high (as in CP quality as a resource), the undesirable effect of CP variation can be effectively managed. Thus, motivating customers to provide high-quality information that is reliable, accurate, and relevant is key. The negative moderating role of service climate, job experience, and CP quality is consistent with the JD-R literature, which argues that resources buffer the impact of demands (Bakker and Demerouti 2007).

On the contrary, manager emphasis on CP and customer prioritization accentuate the effect of CP variation on burnout. These results are in line with the conceptualization of the two moderators as demands, such that the combination of two demands exacerbate the effect of CP variation on burnout. Although these demands may appear like good-faith efforts, when managers underscore CP and customer prioritization, this emphasis adds undue pressure to the existing stress that comes with dealing with CP variation. For service prioritization, while it is possible to argue that prioritization can be viewed as a resource or as a demand, the results support the view that prioritization is more consistent with a demand. Although the commonly held view may be that prioritization enables employees to be more effective by allocating resources efficiently and targeting customers with greater precision, the very act of prioritization can be taxing and stressful.

Therefore, organizations are ill-advised to overly stress the importance of CP and the prioritization of service to certain customers in the face of CP variation. Rather, a more effective strategy would be to provide organizational resources or leverage personal resources to elevate

the employee's competency level in coping with CP variation. It is important to underscore that our model holds CP constant and controls for any differences that could be attributable to differences in the level of CP, thus lending credence to the finding that CP variation drives the results, not CP.

The mediating process of customer-related burnout. The underlying process of how CP variation negatively affects customer service performance is channeled through increased customer-related burnout. This finding contributes to the JD-R literature by empirically showing that CP variation is a job demand for service employees and that unless intervening mechanisms are put in place, customer service will suffer.

Most of the job demands that have received attention in the JD-R model have originated from the organization, supervisor, or colleagues. Less attention has been paid to job demands related to customers (see Schmitz and Ganesan 2014 on customer complexity as an exception). For service employees whose job description involves interactions with customers, CP variation is inevitable, and organizations need to effectively manage this as a job demand if customer service is not to be compromised. Furthermore, most of the outcomes of job demands are employee related, such as job dissatisfaction, turnover, and disengagement. However, our model shows that job demands imposed on employees can also have consequences on customers—namely, diminished customer service performance. It is also worthwhile noting that customers, who are the primary source of the demand, can be the focal reason for the undesirable outcome. As a result, service employees may attribute poor customer service to the customers themselves. This implies that customers will be on the losing end. Therefore, it is important for organizations

to ensure that employees do not perceive extreme CP variation if positive customer service is to be maintained.

Validity of the CP variation construct. Across two studies and diverse service industries (financial services, insurance, legal consulting, travel and tourism, healthcare, and physical fitness), we find strong support for the discriminant validity of CP variation relative to related constructs such as CP and CP quality. Support across various industries suggests the generalizability of the construct. To date, no study in the literature, including those reviewed in Table 1, has examined CP, CP quality, and CP variation all in the same study. All studies have focused mainly on CP. To this end, our study is meaningful because even after we control for CP, the results support a negative impact of CP variation on customer service performance through burnout.

Managerial Implications

Managers need to be cognizant not only about the level of CP but also about how much variation there is in CP across customers. When employees sense high CP variation, unless there is managerial intervention, they will experience customer-related burnout that eventually leads to poor customer service. Therefore, it is critical to understand the conditions under which CP variation's impact on customer service can be minimized and then to manage that variation proactively. To this end, we propose three strategies that managers can take to effectively manage the negative effect CP variation has on customer service performance.

Customer portfolio management. One way to address the CP variation issue is to pair employees with customers who show homogenous levels of CP. That is, rather than letting an

employee serve a diverse group of customers who display varying levels of CP (i.e., high CP variation), it would be effective if firms could develop a portfolio approach of assigning customers to different groups based on their level of CP (i.e., low-CP, medium-CP, and high-CP customers). From a predictive perspective, in terms of how likely customers are to participate to similar degrees, organizations can examine and identify customers who have similar levels of motivation, ability, and perceived clarity with respect to both task and role expectations (Lengnick-Hall, Claycomb, and Inks 2000). When customers have comparable motivations, expertise, and understanding of the task and the accompanying roles they are to play, the chances of exhibiting similar levels of CP are enhanced. To this end, customer education, training, and communication can foster greater motivation, better capabilities, and higher task and role clarity (Bell, Auh, and Eisingerich 2017).

Provide more resources. Resources can come from various sources, ranging from the organization (service climate), to employees (experience), to customers (CP quality). It is important for firms to ensure that employees are well-equipped with adequate resources to neutralize the harmful effect of CP variation. That is, understanding the configuration of resources that will attenuate the effect of CP variation on burnout is critical. In our case, we find that high service climate, employee experience, and CP quality help dampen the effect of CP variation on burnout. When employees have more experience, it may be easier for them to elicit high CP quality as well. Having high CP quality is a key factor because even in the face of CP variation, high CP quality can mitigate the impact of CP variation. Getting customers to participate (i.e., CP level) alone is insufficient, especially when there is dispersion among customers in their level of CP. Our findings indicate that not only CP level but also CP quality is what employees need.

Avoid additional demands. While more resources should be given to employees, additional demands should be removed when employees encounter CP variation. Our results suggest that the stressful situation will only be aggravated when CP variation is coupled with other demands, such as manager emphasis on CP and service prioritization. Although emphasis on CP can be a manifestation of the service climate, excessive emphasis on CP (e.g., monitoring) can impose undue pressure and stress, exacerbating the harmful effect of CP variation. Similarly, service prioritization is interpreted as a job demand rather than a resource. Although prioritization can enable an employee to be more efficient, unless employees possess the required competencies and motivation, prioritization may be difficult to achieve. Therefore, to increase the necessary skills and motivation, firms should complement the task of prioritization with resources such as training and compensation incentives.

Limitations and Future Research Directions

This research is not without limitations. Although we controlled for common method bias, we measured customer service performance using subjective items. Future studies should employ either customer data to assess customer satisfaction or complaints or objective data, such as sales or profits. Although we define CP variation as the amount of variation in CP that service employees perceive across the customers they serve, CP variation could also be examined within a single customer and across different interaction situations over time. This perspective could potentially provide valuable insight by comparing and contrasting how CP variation that occurs across customers versus within a given customer affects burnout and customer service performance differently. We also acknowledge the way in which we measure CP variation (i.e., a subjective perceptual measure collected from individual employees) as a limitation of our study.

Future studies may measure CP variation by asking respondents to rate the CP level for their individual customers and then compute a standard deviation score (i.e., consensus measure) across customers so as to provide a more objective measure of CP variation.

While the goal of this study was not to examine the nature of CP variation, future studies might explore, for example, whether burnout is affected to the same degree when variation originates from lack of effort versus competency. This would be important to know because a firm's intervention strategy would be different under these two scenarios. If CP variation is the result of variation due to customer incompetency, firms could target customers whose capabilities fall within a narrow band either by educating customers or by using a selection process such that only customers who meet or exceed an acceptable threshold are allowed to participate. However, if the reason is due to lack of motivation and effort, a different strategy should be employed. For example, firms may need to incentivize customers by taking either an instrumental approach, which is focused on financial incentives (e.g., waiving fees, providing discounts), or a normative approach, which elicits a desire to participate by promoting social approval or as sense of citizenship behavior (e.g., Bettencourt 1997; Kelley, Donnelly, and Skinner 1990).

Finally, though we studied CP quality as the moderator between CP variation and customer related burnout in Study 2, another related moderating construct that future studies could explore is CP quality variation, that is, the dispersion amongst customers in the degree to which they provide quality participation. Whereas we conceptualized CP quality as a resource, CP quality variation would be considered a demand and we expect the effect of CP variation on customer related burnout to be further exacerbated when CP quality variation is high vs. low.

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Table 1: Select Studies on Customer Participation.

Source	Context and Data	Key Empirical Findings
Chang and Taylor (2016)	Meta-analysis examining relationship between CP and new product development (NPD)	<ul style="list-style-type: none"> • CP in the ideation and launch (development) stage of NPD results in higher (lower) NPD financial performance because of faster (slower) speed to market. • The effect of CP on NPD financial performance is greater in technologically turbulent NPD projects, emerging countries, low-technology industries, for business customers, and small firms.
Dong et al. (2015)	<p>Study 1: Scenario-based experiment (study abroad tour and Internet setup) with 187 undergraduate students</p> <p>Study 2: Scenario-based experiment with 232 respondents using Amazon Mechanical Turk</p>	<ul style="list-style-type: none"> • The impact of CP on perceived service quality and customer satisfaction is greater for customers who possess high (vs. low) participation readiness (i.e., perceived ability, perceived benefit of participation, and identification with participation role) (Study 1). • The impact of CP on perceived service quality and customer satisfaction is greater when perceived benefits and role identification are high (vs. low); however, the same impact is greater when perceived ability is high (vs. low) but only for satisfaction and not for service quality (Study 2).
Haumann et al. (2015)	Field experiment (two-wave design) using 803 customers from a large multinational firm selling standardized ready-to-assemble furniture	<ul style="list-style-type: none"> • Co-production intensity has a negative effect on satisfaction with the co-production process. • Economic value, relational value, economic and relational value, support-service communication, and full-service communication strategies mitigate the negative effect of co-production intensity on co-production process satisfaction.
Ho and Ganesan (2013)	<p>Study 1: Scenario-based experiment (high tech industry) with 121 EMBA students</p> <p>Study 2: 110 respondents from manufacturers in the optics, computing, and the automotive industry</p>	<ul style="list-style-type: none"> • Knowledge base compatibility between supplier partners has a positive effect on knowledge sharing between supplier partners when CP is high (only supported in Study 2). • Knowledge base compatibility between supplier partners has a positive (negative) effect on knowledge sharing between supplier partners when CP is high and customer value is high (low).
Eisingerich, Auh, and Merlo (2014)	327 responses from a global financial services company	<ul style="list-style-type: none"> • Customer satisfaction has a positive effect on CP and this effect is greater for high expertise customers compared to low expertise customers. • CP fully mediates the impact of customer satisfaction on sales performance. • The effect of CP on sales performance is greater than that of word of mouth on sales performance.
Gallan, Jarvis, Brown, and Bitner (2013)	190 patients from a large specialty medical clinic	<ul style="list-style-type: none"> • CP partially (fully) mediates the relationship between positivity and technical (functional) service quality. • The impact of CP on customer satisfaction is fully mediated by only functional service quality but not by technical service quality.
Yim, Chan, and Lam (2012)	223 matched pairs of customers and service employees of a multinational bank from Hong Kong	<ul style="list-style-type: none"> • CP enjoyment, in addition to economic and relational values, fully mediates the effect of CP on customer satisfaction. • Employee participation enjoyment, in addition to job stress and relational value, fully mediates the effect of CP on employee job satisfaction. • CP has a positive effect on CP enjoyment when both customer self-efficacy (SE) and customer other efficacy (OE) are high; however, it has a negative effect when both customer SE and customer OE are low. • CP has a positive effect on employee participation enjoyment when both employee SE and employee OE are high; however, it has a negative effect when both employee SE and employee OE are low. • CP has a positive effect on CP enjoyment when customers have low customer SE and high customer OE.

		<ul style="list-style-type: none"> • CP has a positive effect on employee participation enjoyment when employees have high employee SE and low employee OE.
Roggeveen, Tsiros, and Grewal (2012)	<p>Study 1: Scenario-based experiment (flight delay) with 79 students</p> <p>Study 2: Scenario-based experiment (flight delay) with 111 students</p>	<ul style="list-style-type: none"> • CP in recovery co-creation after a service failure has a positive impact on post-recovery satisfaction and repurchase intentions when service failure is major but no impact when service failure is minor (Studies 1 and 2). • The interaction between CP in recovery co-creation after a service failure and severity of service failure on postrecovery evaluations (satisfaction and repurchase intention) is mediated by equity.
Chan, Yim, and Lam (2010)	349 matched pairs of customers and service employees of a Hong Kong and U.S. operations of a multinational bank	<ul style="list-style-type: none"> • Economic and relational values fully mediate the effect of CP on customer satisfaction. • Employee job stress and relational value fully mediate the effect of CP on employee job satisfaction. • CP has a weaker (stronger) effect on the creation of customer economic (relational) value as a customer's collectivist value orientation increases. • CP has a weaker (stronger) effect on the creation of employee job stress (relational value) as an employee's collectivist value orientation increases. • CP has a weaker effect on the creation of customer economic value as a customer's power distance value orientation increases.
Fang (2008)	143 matched component manufacturer–OEM customer dyads from computer peripheral devices, general industrial machinery and equipment, electronic components, and transportation components and parts industries	<ul style="list-style-type: none"> • CP as an information resource (CPI) has a negative (positive) impact on new product innovativeness when downstream customer network connectivity is high (low). • CPI has a positive impact on new product speed to market when downstream customer network connectivity is high and no significant effect when it is low. • CP as a codeveloper (CPC) has a negative effect on new product speed to market when process interdependence is high. • CPC has a positive effect on new product innovativeness when process interdependence is high.
Dong, Evans, and Zou (2008)	Scenario-based experiment (online course registration and Internet setup) with 223 undergraduate students	<ul style="list-style-type: none"> • CP in service recovery has a positive effect on customer role clarity, perceived value, satisfaction with service recovery, and intention towards future value co-creation.
Auh et al. (2007)	<p>Study 1: 1,197 high value clients from a global financial services firm</p> <p>Study 2: 100 respondents from small intercept in healthcare industry</p>	<ul style="list-style-type: none"> • Communication, client expertise, affective commitment, and interactional justice have positive effects on co-production (Study 1). • Communication and client expertise have positive effects on co-production (Study 2). • Co-production is positively related to attitudinal loyalty but not to behavioral loyalty (Studies 1 and 2).
Bendapudi and Leone (2003)	Studies 1 and 2: Scenario-based experiment (bookshelf, poster frame, and custom jeans, travel agent, lawyer, and weight-loss center) with 124 and 135 undergraduate students	<ul style="list-style-type: none"> • When the outcome is better than expected, customer satisfaction with the firm is greater when the customer does not participate in the production than when one does. • When the outcome is worse than expected, there is no difference in customer satisfaction between those who participate and those that do not. • When a customer has a choice to participate or not, and the outcome is better (worse) than expected, customer satisfaction with the firm is greater when the customer chooses not (chooses) to participate than when chooses (not) to participate.

Note. CP = customer participation.

Table 2. Reliabilities, Intercorrelations, and Descriptive Statistics (Study 1).

Variables	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
1. Gender																			
2. Age	-.133**																		
3. Education	-.172**	-.150**																	
4. Experience (log)	-.032	.732**	-.142**																
5. Number of customers (log)	-.026	.149**	.053	.110**															
6. Positive affectivity	-.070	-.023	.072	-.109**	.120**														
7. Negative affectivity	.053	-.220**	.030	-.173**	-.055	.125**													
8. Customer orientation	-.030	.106**	.082*	.027	.259**	.491**	-.009												
9. LMX	-.056	-.042	.123**	-.073	.136**	.395**	.058	.476**											
10. Job satisfaction	-.108**	.095*	.030	.003	.176**	.423**	-.103*	.382**	.519**										
11. CP	-.030	-.035	.102*	-.105**	.072	.408**	.160**	.314**	.367**	.297**									
12. CP initiation	-.107**	.061	.055	.028	.218**	.183**	-.061	.161**	.116**	.144**	.091*								
13. Customer prioritization	-.067	.015	.100*	.000	.246**	.335**	.088*	.475**	.575**	.401**	.323**	.196**							
14. CP variation	-.008	-.103*	.132**	-.097*	.183**	.285**	.152**	.363**	.350**	.226**	.315**	.093*	.399**						
15. Manager emphasis on CP	-.008	-.133**	.056	-.115**	-.041	.140**	.293**	.087*	.045	.000	.230**	-.001	.127**	.156**					
16. Customer power	-.036	.036	.081*	.039	.100*	.358**	.139**	.631**	.428**	.254**	.336**	.076	.403**	.339**	.218**				
17. Service climate	.043	-.083*	.132**	-.070	.189**	.244**	-.004	.396**	.401**	.316**	.167**	.181**	.350**	.203**	-.003	.429**			
18. Customer-related burnout	.026	-.158**	-.071	-.093*	-.099*	-.159**	.365**	-.270**	-.155**	-.231**	.026	-.089**	-.138**	.133*	.368**	-.159**	-.243**		
19. Service performance	-.009	.129**	.043	.076	.270**	.449**	-.037	.612**	.573**	.505**	.326**	.108**	.589**	.348**	.005	.467**	.411**	-.314**	
Mean	—	37.12	—	.78	1.47	3.75	3.03	4.15	3.84	3.91	3.54	—	3.98	3.52	3.25	3.84	4.02	2.75	4.13
SD	—	8.89	—	.48	.61	.76	.84	.69	.65	.77	.72	—	.70	.72	.86	.70	.50	.53	.64
Cronbach's alpha	—	—	—	—	—	.79	.81	.92	.89	.94	.90	—	.90	.87	.91	.71	.85	.79	.93
Composite reliability	—	—	—	—	—	.81	.82	.92	.89	.94	.90	—	.90	.87	.91	.73	.85	.86	.93
AVE	—	—	—	—	—	.59	.61	.71	.54	.83	.64	—	.64	.62	.73	.50	.59	.50	.67

Note. CP = customer participation. LMX = Leader Member Exchange. Service climate is a branch-level variable. After data aggregation, we assigned the same value to each private banker within a given branch.

* $p < .05$; ** $p < .01$ (two-tailed test).

Table 3. Results (Study 1).

	Model 1				Model 2			
	Customer-Related Burnout		Service Performance		Customer-Related Burnout		Service Performance	
	γ	SE	γ	SE	γ	SE	γ	SE
Controls								
Gender	-.020	.039	.056	.035	-.029	.039	.053	.037
Age	-.004	.003	.003	.003	-.007	.003	.003	.003
Education	-.099**	.037	-.038	.035	-.061	.037	-.029	.036
Number of customers (log)	.015	.032	.088**	.030	.011	.032	.120**	.030
Positive affectivity	-.071*	.029	.083**	.028	-.076**	.029	.081**	.028
Negative affectivity	.168**	.023	-.017	.022	.186**	.023	-.012	.023
Customer orientation	-.135**	.039	.166**	.037	-.135**	.039	.183**	.038
LMX	.036	.038	.144**	.036	.040	.037	.184**	.036
Job satisfaction	-.037	.029	.108**	.027	-.020	.029	.112**	.028
CP	-.018	.029	.021	.027	-.021	.029	.023	.027
CP initiation	.015	.037	-.094**	.035	.021	.037	-.087*	.036
Customer power	.005	.035	.110**	.033	.010	.035	.118**	.033
Main Effects								
CP variation	.072**	.029			.081**	.032		
Customers-related burnout			-.124**	.038			-.135**	.038
Moderating Variables								
Service climate (branch level)	-.161**	.043	.084*	.040	-.175**	.043	.147**	.042
Job experience	.021	.055	.043	.052	.042	.055	.046	.053
Customer prioritization	-.047	.034	.220**	.031	-.038	.038	.168**	.036
Manager emphasis on CP	.195**	.022	-.026	.022	.201**	.025	-.017	.026
Interaction Effects								
CP variation \times Service climate					-.111*	.063		
CP variation \times Job experience					-.165**	.062		
CP variation \times Customer prioritization					.160**	.052		
CP variation \times Manager emphasis on CP					.072*	.036		
Common method correction	.059	.038	-.043	.036	.104*	.041	-.044	.037
Endogeneity correction	.070	.072	-.023	.067	.131	.084	-.021	.069
Pseudo R ²	.36		.60		.40		.60	

Note. CP = customer participation. LMX = Leader Member Exchange. Model 1 = main-effects model, Model 2 = model with interaction effects.

* $p < .05$; ** $p < .01$ (one-tailed test for the hypothesized relationships; two-tailed test for control variables).

Table 4. Conditional Effects (Study 1).

CP Variation (X) → Customer-Related Burnout (M) → Customer Service Performance (Y)				
Moderating Variable	Direct Effects			Indirect Effect
	(X→M)	(M→Y)	(X→Y)	(X→M) × (M→Y)
Service Climate				
Mean	.081** [.029; .135]	-.135** [-.198; -.070]	-.001 [-.054; .049]	-.011** [-.022; -.004]
Low (-1SD)	.137** [.064; .213]	-.135** [-.198; -.070]	-.001 [-.054; .049]	-.018** [-.035; -.007]
High (+1SD)	.025 [-.051; .101]	-.135** [-.198; -.070]	-.001 [-.054; .049]	-.003 [-.015; .006]
Difference (high–low)	—	—	—	.015* [.002; .028]
Job Experience				
Mean	.081** [.029; .135]	-.135** [-.198; -.070]	-.001 [-.054; .049]	-.011** [-.022; -.004]
Low (-1SD)	.159** [.088; .232]	-.135** [-.198; -.070]	-.001 [-.054; .049]	-.022** [-.038; -.010]
High (+1SD)	.002 [-.070; .076]	-.135** [-.198; -.070]	-.001 [-.054; .049]	.000 [-.011; .009]
Difference (high–low)	—	—	—	.021* [.002; .040]
Customer Prioritization				
Mean	.081** [.029; .135]	-.135** [-.198; -.070]	-.001 [-.054; .049]	-.011** [-.022; -.004]
Low (-1SD)	-.005 [-.073; .067]	-.135** [-.198; -.070]	-.001 [-.054; .049]	.001 [-.009; .011]
High (+1SD)	.166** [.096; .237]	-.135** [-.198; -.070]	-.001 [-.054; .049]	-.022** [-.040; -.010]
Difference (high–low)	—	—	—	-.020* [-.023; -.003]
Manager Emphasis on CP				
Mean	.081** [.029; .135]	-.135** [-.198; -.070]	-.001 [-.054; .049]	-.011** [-.022; -.004]
Low (-1SD)	.028 [-.034; .092]	-.135** [-.198; -.070]	-.001 [-.054; .049]	-.004 [-.014; .004]
High (+1SD)	.133** [.060; .207]	-.135** [-.198; -.070]	-.001 [-.054; .049]	-.018** [-.034; -.007]
Difference (high–low)	—	—	—	-.014** [-.029; -.002]

Note. CP = customer participation. SD = standard deviation. Bootstrapped (5,000 samples) values are reported.

Lower and upper bounds of confidence intervals (90%) appear in brackets.

*p < .05; **p < .01 (one-tailed tests).

Table 5. Reliabilities, Intercorrelations, and Descriptive Statistics (Study 2).

Variables	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1. Gender														
2. Age	.015													
3. Education	.095	-.157*												
4. Experience (log)	.060	.018	-.007											
5. Customer orientation	.075	-.002	.120	.355**										
6. LMX	.021	.025	.036	.477**	.499**									
7. Job satisfaction	.127*	.227**	.011	.304**	.367**	.262**								
8. CP	-.033	.025	-.015	.296**	.426**	.440**	.201**							
9. CP initiation	-.006	-.140*	-.018	-.050	.044	-.035	-.093	.011						
10. CP variation	-.082	-.167**	.124	.410**	.379**	.408**	.166**	.242**	.120					
11. Customer power	.073	.107	-.004	.570**	.307**	.554**	.381**	.291**	-.037	.315**				
12. Customer-related burnout	-.217**	-.060	.057	-.005	.047	-.032	-.122	.090	.096	.218**	-.045			
13. CP quality	.161*	.013	.077	.311**	.543**	.359**	.343**	.430**	.050	.181**	.461**	-.024		
14. Service performance	-.009	-.075	.054	.386**	.225**	.429**	.142*	.139*	.055	.173**	.251**	-.146*	.177**	
Mean	—	35.93	—	3.77	4.09	3.69	3.74	3.76	—	3.70	3.91	3.56	4.34	3.80
SD	—	7.87	—	.82	.66	.69	.91	.74	—	.77	.67	1.14	.73	.85
Cronbach's alpha	—	—	—	—	.83	.86	.88	.82	—	.81	.88	.90	.92	.95
Composite reliability	—	—	—	—	.83	.87	.88	.84	—	.84	.88	.90	.92	.95
AVE	—	—	—	—	.53	.51	.72	.51	—	.56	.72	.61	.71	.72

Note. CP = customer participation. LMX = Leader Member Exchange

*p < .05; **p < .01 (two-tailed test).

Table 6. Results (Study 2).

	Model 1				Model 2			
	Customer-Related Burnout		Customer Service Performance		Customer-Related Burnout		Customer Service Performance	
	γ	SE	γ	SE	γ	SE	γ	SE
Controls								
Gender	-.476**	.172	-.135	.126	-.450**	.170	-.135	.126
Age	.052	.087	-.064	.062	.053	.087	-.064	.062
Education	.090	.138	.030	.099	.128	.136	.030	.099
Customer orientation	.183	.172	.230	.125	.134	.171	.230	.125
LMX	-.347	.158	.305**	.115	-.270	.159	.305**	.115
Job satisfaction	-.168	.088	.005	.064	-.155	.087	.005	.064
CP	.129	.112	-.082	.081	.153	.112	-.082	.081
CP initiation	.151	.163	.082	.117	.147	.160	.082	.117
Customer power	-.164	.154	-.117	.111	-.189	.152	-.117	.111
Main Effects								
CP variation	.357**	.110			.343**	.112		
Customers-related burnout			-.131**	.046			-.131**	.046
Moderating Variable								
CP quality	.105	.130	-.081	.093	.134	.131	-.081	.093
Interaction Effect								
CP variation \times CP quality					-.237*	.112		
Common method correction	.095	.068	.066	.049	.085	.067	.066	.049
Endogeneity correction	-.135	.147	.052	.106	-.216	.150	.052	.106
Pseudo R ²	.18		.28		.27		.28	

Note. CP = customer participation. LMX = Leader Member Exchange. Model 1 = main-effects model, Model 2 = model with the interaction effect.

* $p < .05$; ** $p < .01$ (one-tailed test for the hypothesized relationships; two-tailed test for control variables).

Table 7. Comparison between CP, CP variation, and CP quality

Construct	Definition	Focus
CP	Customer involvement in the service co-creation and delivery process by sharing information, ideas or suggestions to improve the service process and outcome	Level or quantity of CP
CP variation	Perceived dispersion in the level of CP across customers in terms of sharing information about their needs and opinions, expressing their personal preferences, and providing suggestions for improving service outcomes	Dispersion (spread) of CP
CP quality	The usefulness, helpfulness, reliability, accuracy, or relevance of shared information, ideas, and suggestions	Quality of CP

Figure 1. Proposed Model (Study 1).

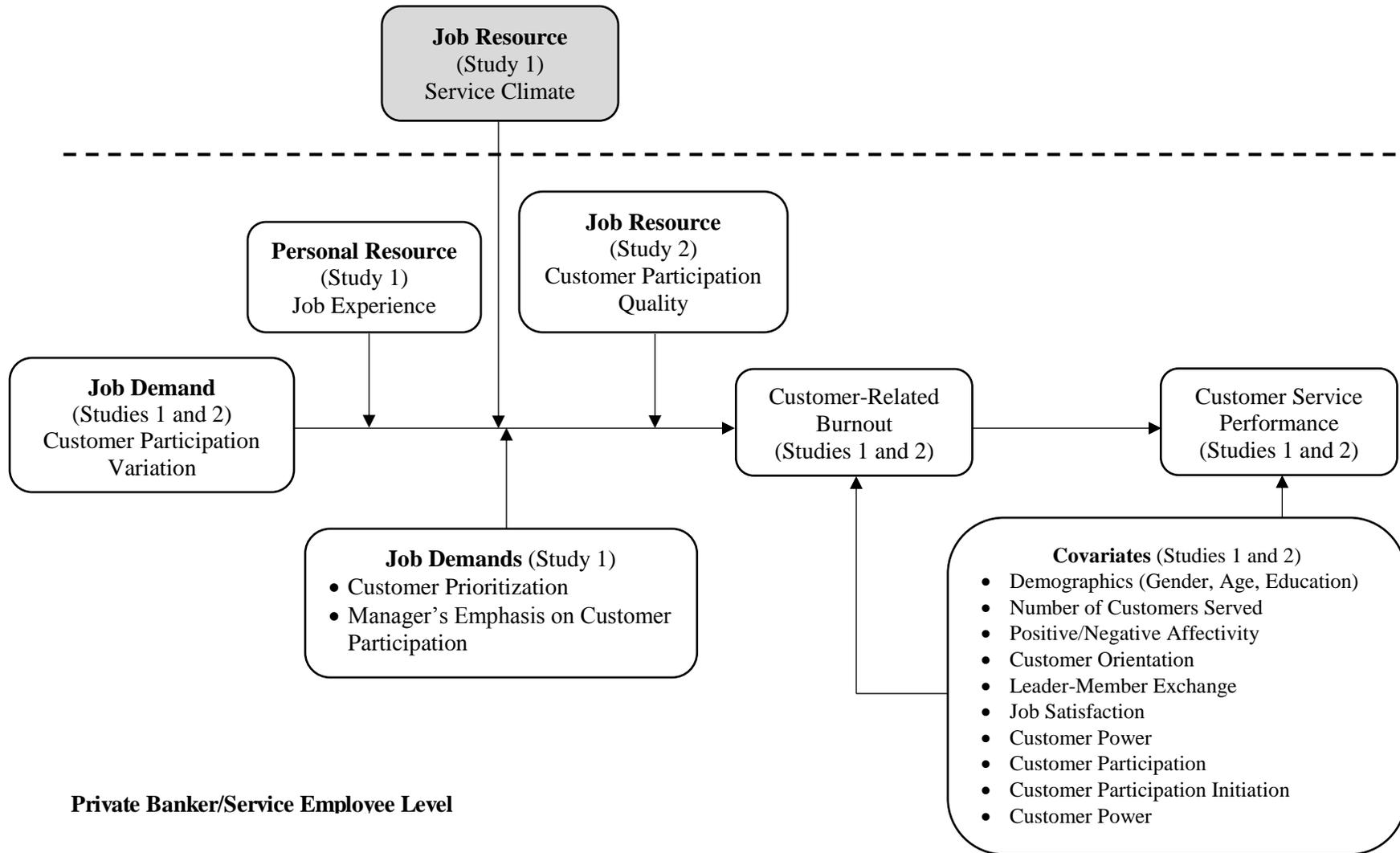
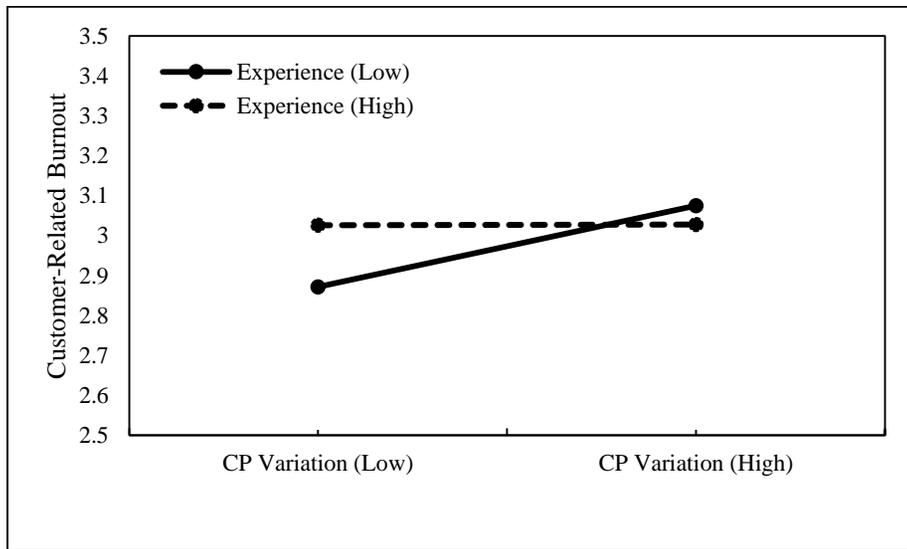
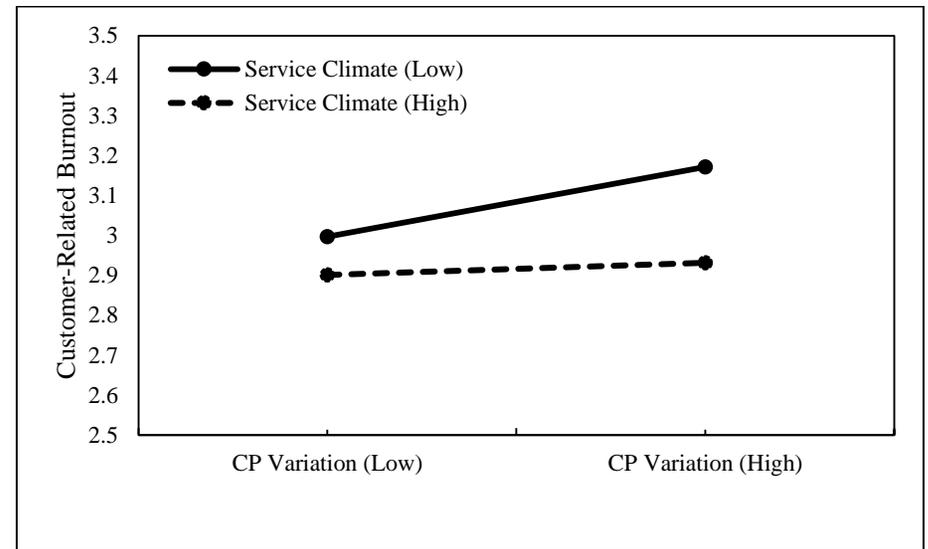


Figure 2. The Effects of Moderators (Study 1).

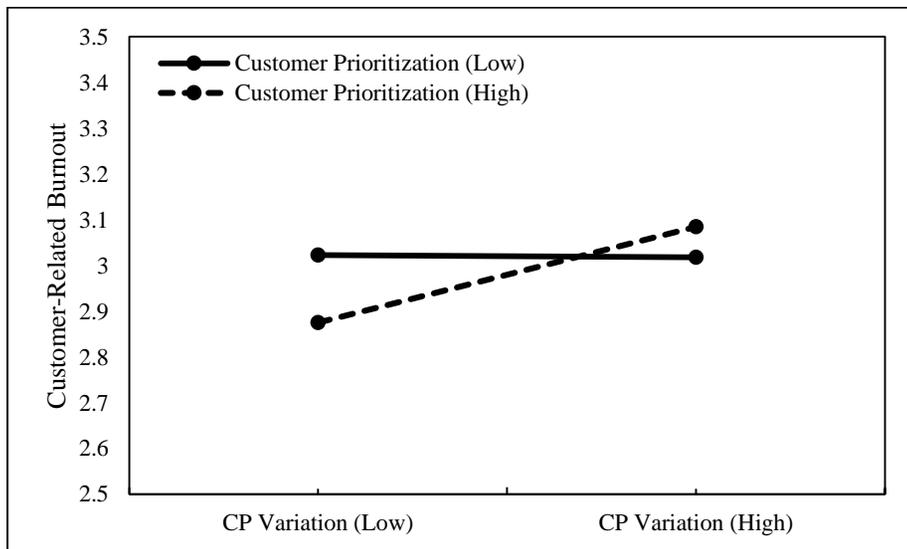
(a) Job Experience



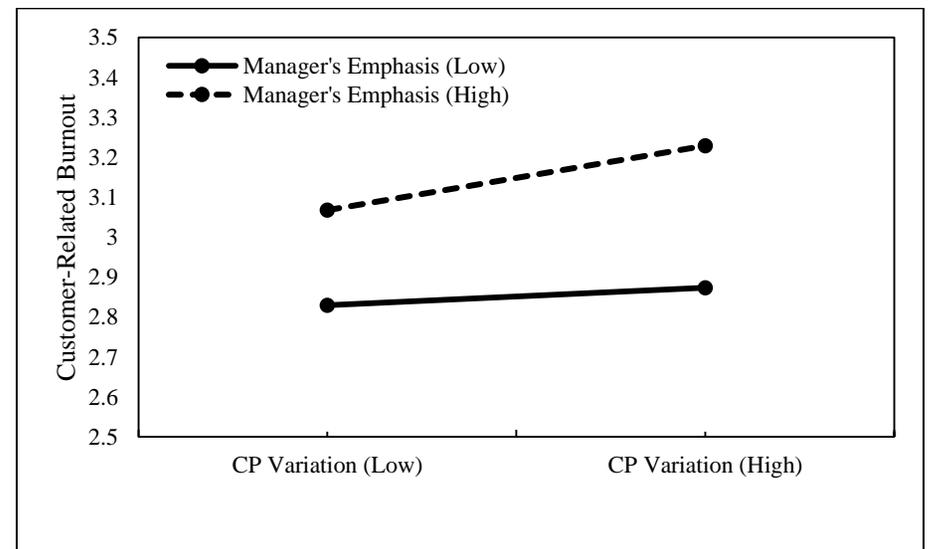
(b) Service Climate



(c) Customer Prioritization

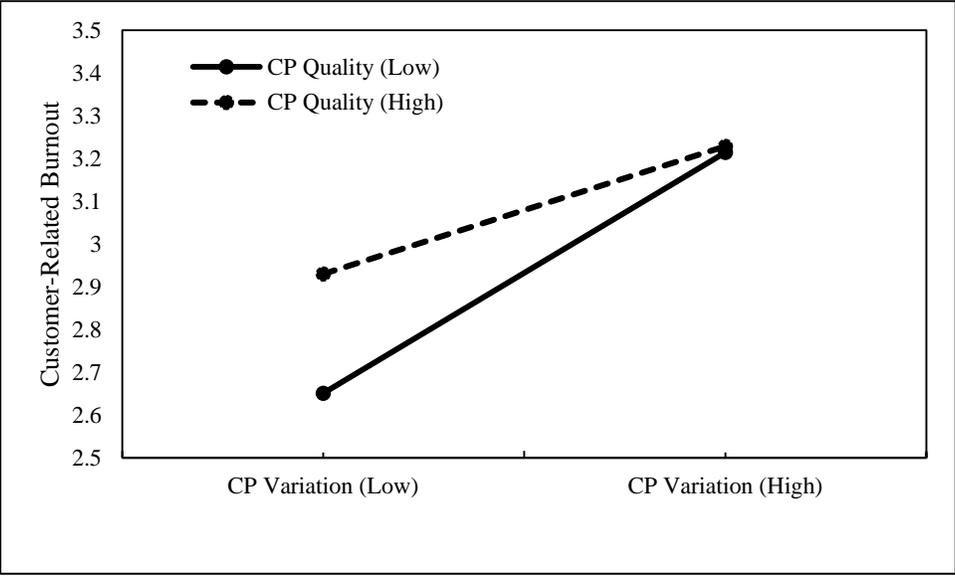


(d) Manager Emphasis on CP



Note. CP = customer participation.

Figure 3. The Moderating Role of CP Quality (Study 2).



Note. CP = customer participation.

Appendix. Measures and Factor Loadings.

	Factor Loadings	
	Study 1	Study 2
Customer Participation Quality (New Scale)		
The information I receive from my customers about their needs and opinions during the service process is useful		.812
The information I receive from my customers about their needs and opinions during the service process is relevant		.711
The information I receive from my customers about their needs and opinions during the service process is helpful		.845
The information I receive through customer participation to improve the service outcome is accurate		.885
The information I receive through customer participation to improve the service outcome is high quality		.944
Customer Participation Variation (Adapted from Chan, Yim, and Lam 2010)		
Please evaluate the extent to which there is VARIATION across your customers in terms of the following activities:		
Spending time to share information about their needs and opinions with you during the service process	.782	.750
Putting effort into expressing their personal needs to you during the service process	.773	.791
Providing suggestions to you for improving the service outcome	.801	.773
Participating in the service process to improve the service outcome	.802	.682
Customer Participation (Source: Chan, Yam, and Lim 2010)		
My customers spend a lot of time sharing information about their needs and opinions with me during the service process.	.788	.738
My customers put a lot of effort into expressing their personal needs to me during the service process.	.789	.637
My customers always provide suggestions to me for improving the service outcome.	.813	.745
My customers have a high level of participation in the service process.	.789	.707
My customers are very much involved in deciding how the services should be provided.	.805	.737
Customer-Related Burnout (Source: Singh, Goolsby, and Rhoads 1994)		
I feel I treat some customers as if they were impersonal "objects."	.700	.703
I feel indifferent toward some customers.	.685	.719
I feel I perform effectively to meet customers' needs. (r)	.711	.761
I feel effective in solving customers' problems. (r)	.720	.742
Working with customers is really a strain for me.	.662	.874
I feel I am working too hard for customers.	.767	.856
Customer Service Performance (Source: Liao and Chuang 2007)		
Being friendly and helpful to customers	.809	.787
Approaching customers quickly	.834	.736
Asking good questions and listening to find out what a customer wants	.833	.865
Being able to help customers when needed	.836	.921
Pointing out and relating item features to a customer's needs	.833	.902
Suggesting items customers might like but did not think of	.779	.855
Explaining an item's features and benefits to overcome a customer's objections	.802	.856
Customer Orientation (Source: Kennedy, Lassk, and Goolsby 2002)		
I must understand the needs of my customers.	.830	.884
It is critical to provide value to my customers.	.862	.901
I can perform my job better if I understand the needs of my customers.	.861	.352 ^b
Understanding my customers will help me do my job better.	.837	.909
I am primarily interested in satisfying my customers.	.815	.308 ^b

Customer Power (Adapted from Jayachandran, Hewett, and Kaufman 2004)		
Our customers are very demanding.	.386 ^a	.790
It is difficult to survive if we do not continuously track and respond to our customers' needs.	.792	.827
We may lose a significant number of customers if we ignore customer complaints.	.853	.920
LMX (Leader Member Exchange) (Source: Liden, Wayne, and Stilwell 1993)		
I know where I stand with my manager.	.631	.370 ^b
My manager understands my work problems and needs.	.749	.786
My manager recognizes my potential.	.741	.832
My manager would use his/her power to solve my work problems.	.737	.794
I can count on my manager to "bail me out" when I really need it.	.708	.843
I defend my manager's decisions, even when (s)he is not around.	.766	.338 ^b
My working relationship with my manager is effective.	.795	.813
Job Satisfaction (Source: Fast, Burris, and Bartel 2014)		
All in all, I like working on this job.	.903	.824
Generally speaking, I am very satisfied with this job.	.929	.860
Overall, I think I am as happy as I could be with this job.	.904	.854
Service Climate (Source: Salanova, Agut, and Peiró 2005)		
In this branch...		
We (service employees) have knowledge of the job and the skills to deliver superior quality work and service	.775	
We receive recognition and rewards for the delivery of superior work and service	.714	
We provide customers with excellent quality of service	.813	
We are provided with necessary resources to support the delivery of quality work and service	.754	
Customer Prioritization (Adapted from Homburg, Droll, and Totzek 2008)		
I give service priority to my specific customers.	.836	
I serve my specific customers with more care.	.841	
I differentiate my service to customers depending on their importance.	.727	
I invest more time and effort in serving my specific customers.	.816	
I try to build long-term relationships with specific customers.	.755	
Manager Emphasis on Customer Participation (Adapted from Chowdhury and Endres 2010)		
My manager regularly brings to my attention that customers' participation in the service process is very important.	.697	
My manager closely monitors my effort for customers' participation in the service process.	.887	
My manager ensures that I do my best to facilitate customers' participation in the service process.	.914	
My manager considers my effort for customer participation in my performance evaluations.	.894	
Positive Affectivity (Source: Iverson, Olekalns, and Erwin 1998)		
For me life is a great adventure.	.568	
I live a very interesting life.	.862	
I usually find ways to liven up my day.	.835	
Negative Affectivity (Source: Iverson, Olekalns, and Erwin 1998)		
Minor setbacks sometimes irritate me too much.	.869	
Often I get irritated at little annoyances.	.847	
There are days when I'm "on edge" all of the time.	.604	

Notes. ^aDespite low factor loading, we kept this item in the model to make the scale consistent with the one measured in Study 2; ^b Despite low factor loading, we kept this item in the model to make the scale consistent with the one measured in Study 1; r = reverse scored item