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Title:

The Effect of Regulatory Focus on Customer Citizenship Behavior in a Virtual Brand Community: The Role of Online Self-Presentation and Community Identification

A short running title:

The Effect of Regulatory Focus on Customer Citizenship Behavior

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The Effect of Regulatory Focus on Customer Citizenship Behavior in a Virtual Brand Community: The Role of Online Self-Presentation and Community Identification

Abstract

Customer citizenship behavior (CCB) in virtual brand communities is a topic of increasing importance in marketing management research. This type of behavior plays a critical role in the improvement of enterprises' marketing capabilities. In this study, we draw on regulatory focus theory—along with the perspectives of self-presentation and regulatory fit in relation to social identity—to construct and test a model that investigates both the main effects of regulatory foci (promotion and prevention) and the indirect effects of online self-presentation and community identification on CCB. The empirical results based on our online survey between 310 individual members of an well-known online-community in China demonstrate: (1) a promotion focus exerts a positive influence on CCB while a prevention focus exerts a negative impact; (2) the desire for online self-presentation mediates the association between regulatory foci and CCB; and (3) community identification moderates the relationship between regulatory foci and the desire for online self-presentation, as well as the mediation effect. These results have substantial implications for studying CCB within virtual brand communities.

Keywords: regulatory focus, desire for online self-presentation, customer citizenship behavior, community identification, virtual brand community

1 INTRODUCTION

An increasing number of companies are developing virtual brand communities such as the Harley Owners Group, NikeTalk forums, and Haier's online club, to capitalize on the communal marketing potential. Such virtual platforms not only offer technical and social support to customers in terms of product problems, but also engage customers in sharing purchase experiences, feedback provisions, and product recommendations (Johnson & Lowe, 2015). This type of active, voluntary, and discretionary (extra-role) behaviors by customers refers to customer citizenship behavior (CCB) (Groth, 2005). As a form of consumer engagement, CCB reduces consumer service costs and strengthens the consumer-brand relationship, and thus provides great value to marketers. For example, customer feedback can provide useful information for product innovation, decrease the cost of after-sales service, and replace some work of the marketing department through word-of-mouth communication (Groth, 2005).

Given the importance of CCB to companies, prior research has paid great attention to the antecedents of this type of customer behavior (Table 1). A review of empirical studies has suggested that identified antecedents can be classified into four types. The first type pertains to psychographic factors of customers, including extraversion and agreeableness (Anaza, 2014), pride and mindfulness (Hwang & Lee, 2019), justice perception (Yi & Gong, 2008), identity attractiveness, social media engagement, self-determination (Chiu, Ortiz, Chih, Pang, & Huang, 2019) and participation in crowdsourcing (Yuksel, Darmody, & Venkatraman, 2018). The second captures the aspects of peer customers, including their citizenship behaviors (Yi, Gong, & Lee, 2013) and passion (Kim, Byona, Baekb, & Williams, 2019). The third covers the conditions of enterprises and includes characteristics of service workers (Bove, Pervan, Beatty, & Shiu, 2009), company reputation (Bartikowski & Walsh, 2011), service scripts (Nguyen, Groth, Walsh, & Hennig-Thurau, 2014), salesperson emotional intelligence (Delpechitrea, Beeler-Connelly, & Chaker, 2018), corporate social responsibility (Hur, Kim, & Kim, 2018), legitimacy (Chen, Chen, & Guo, 2019), intangible/tangible resources (Woo, 2019), value co-creation (Assiouras, Skourtis, Giannopoulos, Buhalis, & Koniordos, 2019), argument quality and source credibility (Chiu et al., 2019). The last aspect includes community features, such as encounter-oriented e-retailing environments (Anaza & Zhao, 2013), perceived community-

brand similarity (Hsu, Chih, & Liou, 2015), and community social support (Zhu, Sun, & Chang, 2016). Despite these efforts, Anaza (2014) posited, along with other scholars (Hwang & Lee, 2019; Yi & Gong, 2008), that research on the psychological aspects of customers remains limited. This is especially pertinent to regulatory focus, an underexplored but theoretically important psychological construct.

Insert Table 1 about here

Regulatory focus theory, initially proposed by Higgins (1997), speculates that the reason behind individual differences in goal-oriented behavior patterns is due to two fundamental and discrete personal motivational systems—a promotion system and a prevention system. Those who are promotion-focused tend to set hopes and desires as goals and regulate their behavior toward positive outcomes, while those who are prevention-focused are inclined to set responsibilities and obligations as their goals and govern their behavior away from negative results. In other words, varied regulatory foci embraced by individuals may lead to heterogenous behaviors. Empirically regulatory foci have been used to study organizational citizenship behaviors (Shin, Kim, Choi, Kim, & Oh, 2017; Koopmann, Johnson, Wang, Lanaj, Wang, & Shi, 2019) and consumers’ in-role behaviors (Hsu, Yu, & Chang, 2017). However, surprisingly, little attention has been paid to the way in which regulatory focus shapes CCB, especially in novel contexts. As shown in Table 1, there is an abundance of prior evidence that has linked customer psychological aspects with CCB in traditional rather than online environment.

To further explore the mechanism underpinning the regulatory focus-CCB relationship, we have introduced the desire for online self-presentation as a mediator in such an association. This introduction is in accordance with the self-presentation theory that has been put forth to interpret why people engage in presenting a desired figure of themselves to others (Goffman, 1959; Leary, 1996). Customers with varied regulatory foci have been found to attempt to form different kinds of self-presentation (Canary & Cody, 1994; Kim, Chan, & Kankanhalli, 2012) that might generate an impact on the formation of CCB. In other words, CCB is reflected from customers’ degrees of desire to present in a certain way (Schlenker, 2003). Moreover, the

conception of self-presentation is critical to understanding citizenship behavior (Wagner & Rush, 2000) and been readily applied to an online context, as it plays a role in determining customers' desirable impressions in an online community (Rosenberg & Egbert, 2011). As such, this research takes the premise that the desire for online self-presentation mediates the association between regulatory focus and CCB.

We have additionally included a critical contextual variable, community identification, in consumer behavior research associated with virtual brand community (Füller, Matzler, & Hoppe, 2008; Nambisan & Baron, 2007). The effects of regulatory focus tend to be magnified if individuals' promotion and prevention foci are congruent with situational attributes—known as “regulatory fit” (Higgins, 2000). According to the social identity theory, consumers with higher levels of community identification have stronger connections and better relationships with others in the community (Jeppesen & Molin, 2003; Shen & Chiou, 2009). Moreover, previous research has indicated that community identification can serve as a powerful contextual condition in virtual community research (Nambisan & Baron, 2007). Thus, we estimate that in the presence of higher levels of community identification, customers with a greater promotion focus tend to demonstrate a desire for online self-presentation than those with a weaker promotion focus, because individuals' with stronger promotion focus might achieve a better fit with higher levels of community identification (Nambisan & Baron, 2007). In short, we expect community identification to moderate the relationship between regulatory foci and the desire for online self-presentation.

Overall, this study examines the mechanism between regulatory focus and CCB by constructing and testing a first-stage moderated mediation model (Edwards & Lambert, 2007), shown in Figure 1. We collected data from a well-known virtual community (Xiaomi community) in China and arrived at the following findings: promotion focus increases the likelihood of CCB while prevention focus decreases the likelihood of CCB; the desire for online self-presentation encourages customers with promotion focus to act on CCB and discourages customers with prevention focus from acting on CCB; and, the strength of the positive relationship between regulatory foci and the desire for online self-presentation varies under different levels of community identification. All of these results provide considerable support for the hypothesized relationships.

Insert Figure 1 about here

This study makes at least two major theoretical contributions to the CCB research. First, compared to prior studies that have concentrated on external antecedents, such as aspects of other customers, enterprises, and community as the primary causes of CCB (e.g., Chen et al., 2019; Woo, 2019), this study sheds light on the underexplored intrinsic psychological antecedents based on regulatory focus theory, and explains the way regulatory focus affects CCB. Second, in accordance with the perspectives of self-presentation and regulatory fit in relation to social identity, we have incorporated both mediating (desire for online self-presentation) and moderating (community identification) effects into our model, which constitutes a solid step toward a more complete understanding of the complex mechanisms underpinning the regulatory focus-CCB association. Specifically, for the mediator, while prior research has seemingly ignored online context characteristics (e.g., Assiouras et al., 2019; Chen et al., 2019), our study has addressed this research sufficiently by including the desire for online self-presentation into the relationship between regulatory focus and CCB. As for the moderator, while extant studies have yet to consider community identification as an important boundary condition in virtual community research (Nambisan & Baron, 2007), this study confirms the moderating effect of community identification, which represents a novel finding and thus enriches the CCB literature. To summarize, this study not only contributes to the identification of CCB antecedents, the transfer mechanism of self-presentation, and the contingency of community identification, but it also generates useful advice on how enterprise marketing departments might improve their performances by promoting CCBs in their brand communities.

The remainder of this article is organized into three parts. We briefly summarize the relevant literature on regulatory focus, community identification, the desire for online self-presentation, and CCB. We then develop arguments that lead to our hypotheses. Next, we use an online survey study to test the hypotheses. Finally, we conclude with a discussion of theoretical implications, as well as practical implications for managers, and suggest further research.

2 THEORETICAL BACKGROUND AND HYPOTHESIS

2.1 Customer citizenship behavior

The notion of customer citizenship behavior (CCB) originates from research on organizational citizenship behavior that taps indirect or unexpected voluntary or discretionary actions by the organization's reward system of increasing organizational effectiveness (Organ, 1988). Scholars in marketing research have extended this notion into the customer domain and formally proposed the concept of CCB (Gruen, 1995; Yi & Gong, 2013). In this study, CCB is defined as "customers' voluntary (extra-role) behaviors that are not directly or explicitly rewarded, but lead to higher quality of service and provide extraordinary value to the firm" (Gruen, 1995, p.461). For marketers, CCB not only contributes to cost reduction in consumer service, but it also enhances the consumer-brand relationship (Groth, 2005). Although such voluntary (extra-role) behavior is valuable to companies, it is not indispensable in economic transactions (Bove et al., 2009; Revilla-Camacho, Vega-Vázquez, & Cossío-Silva, 2015). Therefore, CCB antecedents constitute a critical topic for marketing researchers.

A review of CCB studies suggests that these antecedents could be categorized into four types: customer psychological traits, peer-customer aspects, and enterprise and community conditions, respectively (e.g., Anaza, 2014; Hwang & Lee, 2019). Although prior research (e.g., Higgins, 1997) has proposed individuals' regulatory focus as a psychological explanation for a wide range of consumer behavior, little attention has been paid to the relationship between consumers' regulatory focus and CCB. Also, the complexity of the regulatory focus-CCB relationship that should be addressed by sophisticated modeling (Nguyen et al., 2014; Zhu et al., 2016; Woo, 2019; Chen et al., 2019) has not been fully investigated. Specifically, most of the extant studies on CCB have separately considered either mediators (e.g., Assiouras et al., 2019; Hwang & Lee, 2019) or moderators (e.g., Delpechitrea et al., 2018; Yi et al., 2013) (Table 1). In the current study, we constructed and tested a moderated mediation solution to examine the influence and effects of a regulatory focus on CCB under mediating and moderating conditions.

2.2 Regulation focus and customer citizenship behavior

Regulatory focus theory (Higgins, 1997) suggests that there are two distinct self-

regulation systems of prevention and promotion. These systems follow the basic hedonistic principles of approaching pleasure and avoiding pain, which in turn play a regulating role in the formulation of individual attitudes and behaviors (Higgins, 1997). To narrow the gap between current and future states, promotion- and prevention-focused individuals take various behavioral strategies. Specifically, promotion-focused individuals are inclined to embrace their hopes and aspirations and tend to be more sensitive to the presence and absence of positive results (gains and non-gains). Thus, such individuals perform behaviors that are guided by the pursuit of their ideal selves, thereby increasing the significance of the attained goal. In contrast, prevention-focused individuals are motivated by safety and security needs and thus pay greater attention to the minimization of losses or the avoidance of potential loss (losses and non-losses) (Shah, Higgins, & Friedman, 1998). Consequently, these individuals align themselves to the notion of responsibility. For example, when choosing a facial cream, promotion-focused customers are fascinated by the projection of an attractive appearance that could lead to praise and admiration, whereas prevention-focused customers are attracted to the product's claim of avoiding wrinkles (Cesario, Corker, & Jelinek, 2013).

Regulatory focus has been found to play a key role in judgment and decision-making (Arnold, Reynolds, Jones, Tugut, & Gabler, 2014; De Bock & Van Kenhove, 2010; Florack & Scarabis, 2006), especially in the context of consumer behavior (Hsu et al., 2017). Given that promotion-focused individuals are motivated by ideals, growth, and advancement (Higgins, Roney, Crowe, & Hymes, 1994), they also show a propensity for risky decision-making in pursuit of these positive results (Arnold et al., 2014; Crowe & Higgins, 1997). Uncertain situations in life such as expressing an opinion or providing feedback may risk disapproval (Podsakoff, MacKenzie, Paine, & Bachrach, 2000). Similarly, advocating participation or offering recommendations in a virtual community is also subject to possible criticism by other customers (Van Dyne & LePine, 1998) or a risk of knowledge loss (Calo, 2008). Compared to prevention-focused ones, promotion-focused customers are more likely to perform voluntary actions with unsure outcomes. This is because such behaviors, which include guidance and suggestions to other clients and companies, recommending suitable products or services, and expressing empathy through assistive behaviors, enables them to approach ideal selves, gain pleasure, and achieve a sense of achievement (Lieberman, Idson, Camacho, & Higgins, 1999).

Hence, we propose:

Hypothesis 1: Customers' promotion focus is positively related to CCB.

A prevention focus aspires to avoid falling short of one's obligations or duties. Prevention-focused individuals tend to develop a conservative bias, and the possibility that they adopt risky and unproven solutions is lower. This inclination means that such individuals only decide to act when they believe the result to be absolutely certain (Lieberman et al., 1999). Their strength lies in repetition, stability, and error avoidance using strategies of conservation, goal maintenance, and maintaining the status quo (Van Dijk & Kluger, 2011). Because helping customers, providing feedback, and offering recommendations all involve certain risks (Calo, 2008; Soutschek & Tobler, 2018; Van Dyne & LePine, 1998), compared to promotion-focused ones, prevention-focused individuals rarely communicate and exchange thoughts and ideas with others in order to avoid associated risks. Accordingly, they are less likely to engage in CCB. Hence, we propose:

Hypothesis 2: Customers' prevention focus is negatively related to CCB.

2.3 The mediating effect of the desire for online self-presentation

Self-presentation is derived from symbolic interactionism that explains why people seek to show a desired image to others (Goffman, 1959; Leary, 1996). Self-presentation is defined as a continuous process of information management whereby individuals are frequently trying to manage the image they present (Goffman, 1959). Extending the notion of off-line self-presentation, Kim et al. (2012) conceptualized the desire for online self-presentation as “the extent to which an individual wants to present his or her preferred image in a virtual community of interest” (p. 1235).

The desire for online self-presentation may be a useful intervening construct to understand how regulatory focus influences CCB in a virtual brand community. According to the theory of self-presentation (Goffman, 1959), members of brand communities ask for various socio-discursive needs—expressive, communicative, or promotional—in order to control what others can see or know about them. Such needs that can be reflected by different regulatory foci lead to heterogeneous behaviors (Bolino & Turnley, 1999; Kacmar & Tucker, 2016). Promotion-focused customers pursuing growth and accomplishment are predisposed to demonstrate a

higher level of self-presentation, as this approach validates their existence, prove their value and allows them to project their performance toward an ideal self (Goffman, 1959; Chua & Chang, 2016). An engagement in self-presentation can readily satisfy the desire for enhancement of an individual's self-image. When customers have the desire to construct and present themselves (Baumeister & Hutton, 1987), the communication of information and social participation can be intensified (Goffman, 1959). Also, Kim et al. (2012) posited that online self-presentation is a critical motive in virtual community participation and can enhance customers' citizenship behaviors, such as eagerness to provide feedback. Therefore, we propose:

Hypothesis 3: The desire for online self-presentation mediates the relationship between promotion focus and CCB. That is, customers with a promotion focus have a stronger desire for self-presentation and are more likely to engage in CCB.

Prevention-focused customers are prone to adopt vigilant strategies and avoid risks in making decisions (Pham & Avnet, 2004). In a virtual brand community, such individuals are more sensitive to possible negative impacts derived from their self-presentation. First, a presentation of individual positive aspects represents a type of high-key activity that looks for an appreciation from others (Kim et al., 2012), which nevertheless may not be sought by prevention-focused customers as they tend to deliberately keep a low profile (Lim & Hahn, 2019). These customers may worry that redundant and/or inappropriate self-presentation could incur possible resentment. This unfavorable potential outcome decreases their willingness to self-present. Secondly, self-presentation may help customers to associate them with other people in a community (Kim et al., 2012). It is in conflict with the preference of prevention-focused customers to keep a distance with other people to avoid potential risks. They may not be interested in putting forth more efforts to become strongly linked with others in the community (Ng & Batra, 2017). As such, their willingness to self-present, participate in social interactions and engage in information exchanges are likely to be limited, which in turn constrains their involvement in CCB, as online self-presentation is an important motive in eagerly providing feedback in virtual community participation (Kim et al., 2012). Therefore, we propose:

Hypothesis 4: The desire for online self-presentation mediates the relationship between prevention focus and CCB. That is, customers with a prevention focus have a weaker desire

for self-presentation and are less likely to engage in CCB.

2.4 The moderating effect of community identification

According to the perspective of regulatory fit (Higgins, 2000), the impact of an individual's regulatory focus does not occur in a vacuum but rather depends on the situation. This perspective suggests that the regulatory focus effect is strengthened when situational characteristics are in alignment with a person's focus—i.e., in other words, the fit between them is achieved. In a virtual brand community, community identification is considered as a key situational characteristic underpinning consumer behavior intention and behavior (Nambisan & Baron, 2007). This notion derives from the concept of social identification that refers to “the perception of belonging to a group with the result that a person identifies with that group (i.e., I am a member)” (Bhattacharya, Rao, & Glynn, 1995, p.47). Researchers have extended this construct into the field of virtual community research (Hsu, Wang, & Chih, 2018; Hsu et al., 2015; Shen & Chiou, 2009).

Based on the social identity theory, community identification occurs when “the person construes himself or herself to be a member—that is, as “belonging” to the brand community” (Algesheimer, Dholakia, & Herrmann, 2005, p.20) , which would persuade him/her to agree with the community's traditions, norms, beliefs, and objectives (Bhattacharya et al., 1995). Customers' community identification highlights their recognition of membership in an organization and embodies it within an associated community that has value and emotional implications (Nambisan & Baron, 2007). Community identification leads to a favorable attitude towards the community (Shen & Chiou, 2009), individual engagement (Algesheimer et al., 2005), and positive emotions (Carlson, Suter, & Brown, 2008; Hsu et al., 2015). Also, it facilitates the development of intimate relationships between community members (McAlexander, Shouten, & Hoenig, 2002) and motivates them to sustain such relationships with the community (Keh & Xie, 2009).

Based on the perspective of regulatory fit (Higgins, 2000), we estimate that community identification would moderate the relationship between consumers' promotion focus and desire for online self-presentation, because community identification is seemingly compatible with promotion focus. Prior research has already shown that the propensity of individuals to engage

in self-presentation is subject to social influence (Kim et al., 2012) and community identification embraced by individuals serves as a powerful contextual condition in virtual community research (Nambisan & Baron, 2007). When levels of community identification are higher, customers are more likely to define themselves as members, thereby “belonging” to the brand community, and build a healthy and strong relationship with other actors (Ho, 2015). Under such a condition, promotion-focus customers are more conducive to online self-presentation in order to maintain these relationships or further develop new ones (Nambisan & Baron, 2007), as the value of these network relationships to ideal selves and personal enhancement is well acknowledged. Conversely, promotion-focused customers with lower-levels of community identification tend to be indifferent about community membership. Lower-levels of community identification may reduce customers’ desire to project a preferred image to others in the community because the community is perceived to be irrelevant or inappropriate to their self-presentation desire, even for strong promotion-focused customers.

Hypothesis 5: Community identification moderates the relationship between promotion focus and the desire for online self-presentation, such that the positive relationship is stronger when community identification is high rather than low.

Based on the aforementioned discussion, it can be estimated that community identification is in conflict with prevention focus. Customers with lower levels of community identification do not consider themselves as members of the brand community (Algesheimer et al., 2005; Nambisan & Baron, 2007). As previously discussed, prevention-focused customers are reluctant to present themselves in virtual communities, which may be further exacerbated under the condition of low community identification, as they perceive the community to be an irrelevant or inappropriate site to carry out self-presentation. However, under conditions of higher community identification levels, the negative impact of the prevention focus on desire for online self-presentation is eased as community identification serves as a countervailing force to promote online self-presentation (Shin & Kim, 2010; McAlexander et al., 2002). Therefore, we propose that the negative relationship between prevention focus and the desire for online self-presentation should be mitigated in high, rather than low, community identification. Hence, this study proposes the following:

Hypothesis 6: Community identification moderates the relationship between prevention

focus and the desire for online self-presentation, such that the negative relationship is weaker when community identification is high rather than low.

In tandem, we have presented the arguments for the mediating effects of self-presentation in the regulatory foci-CCB associations and the moderating effects of community identification on the regulatory foci-self-presentation associations respectively. A logical step forward is to propose that community identification adjusts the strength of the mediating mechanism for self-presentation in the relationship between regulatory-foci and CCB, highlighted by a moderated mediation model (Edwards & Lambert, 2007). As previously discussed, according to the key tenet of social identity theory and the perspective of regulatory fit, the strength of the association between regulatory foci and self-presentation (the first stage of the mediating mechanism) is contingent on community identification. Given the mediating role of self-presentation, we estimate that community identification may also moderate the indirect mediating effects (the joint effect between the first- and second-stage effects) if the first-stage adjustment effects of community identification are large enough. Specifically, increased sensitivity to the presence and absence of positive results and willingness to take risky actions with higher community identification may arouse customers' desire for online self-presentation and CCB (Shin & Kim, 2010; McAlexander et al., 2002). We thus hypothesize:

Hypothesis 7: Community identification moderates the positive and indirect effect of customers' promotion focus on CCB (through the desire for online self-presentation), such that the indirect effect is stronger when community identification is high rather than low.

Hypothesis 8: Community identification moderates the negative and indirect effect of customers' prevention focus on CCB (through the desire for online self-presentation), such that the indirect effect is stronger when community identification is low rather than high.

3 METHODOLOGY

3.1 Data collection

Data were collected via an online questionnaire survey. Participants were customer members of the Xiaomi online community. Xiaomi, an electronics company, was founded in 2000 in China and produces smartphones, tablets, televisions, and smart-home devices. Until December 2014, 31 million members had registered in the Xiaomi community (Zhihong,

Hongting, Rui, & Jiawei, 2016), which makes it one of the largest customer communities in China. As these customers act as external knowledge contributors to the company, they are deemed to be eligible for this study. We asked for their participation into our research project by emailing 1,500 community customers via the member's private messaging or online group between November 1 and December 31, 2017. Among 385 responses (response rate: nearly 26%) received, 75 were discarded because of missing key information. Consequently, the final sample for the later analysis consisted of 310 responses. To assess the non-response bias effect (Armstrong & Overton, 1977), we compared early and late responses on the indicators of age, gender, and education, which is most prevalent approach used by prior online consumer research (Chen & Shen, 2015). The *t*-test results showed no significant differences in age ($p = 0.18$), gender ($p = 0.65$) and education ($p = 0.58$) between the two cohorts. Accordingly, non-response bias is not significant to this study.

In this sample, 51.6% of the respondents were male, and 48.4% were female. In regard to age, 15.2% of consumers were under the age of 25, 60.6% were between 26 and 35, 20.6% were between 36 and 45, and 3.5% were over the age of 46. In regard to educational level, 8.7% of consumers graduated from junior universities or possessed a lower degree, 59.4% possessed an undergraduate degree, and 31.9% possessed a postgraduate or higher degree.

3.2 Measures, reliability, and validity

The translation and back-translation procedures (Brislin, 1980) were used to ensure the consistency between Chinese and English versions of the questionnaire. All multi-item measures were drawn from prior empirical studies and evaluated on a 5-point Likert ranging from 1 (*totally disagree*) to 5 (*totally agree*) (see Appendix A).

Independent variable. Regulatory focus that includes two dimensions was measured by a total of 12 items drawn from the Modified Regulatory Focus Questionnaire (Semin, Higgins, Gil de Montes, Estourget, & Valencia, 2005). Specifically, promotion (Cronbach's alpha = 0.89) and prevention focus (Cronbach's alpha = 0.88) were both gauged by six items. In the promotion focus, sample items included: "How often have you accomplished things that got you "psyched" to work even harder?" In the prevention focus, sample items included: "Growing up, would you ever 'cross the line' by doing things that your parents would not

tolerate?” The two-dimensional solution of the scale was further verified by a confirmatory factor analysis (CFA) ($\chi^2 = 67.46$, $df = 53$; RMSEA = 0.030; CFI = 0.99; TLI = 0.99).

Mediating variable. *Desire for online self-presentation* was measured via a four-item scale (Cronbach’s alpha = 0.86) developed by Kim et al. (2012). Sample items included: “I want to establish a preferred image for myself in this virtual brand community.”

Moderating variable. *Community identification* was measured by a five-item scale (Cronbach’s alpha = 0.89) drawn from Algesheimer et al. (2005) Sample items included: “I am very attached to this virtual brand community.”

Dependent variables. *Customer citizenship behavior (CCB)* consisted of three dimensions measured by an eleven-item scale (Cronbach’s alpha = 0.91) drawn from Anaza (2014). Specifically, three dimensions included helping behaviors, service firm facilitation, and recommendations, and were measured by four, four and three items, respectively. Sample items included: “I assist other members if they need help,” and “I fill out a customer satisfaction survey.”

Control variables. This research included a set of control variables. First, we controlled for demographic characteristics including customers’ age, gender, and educational level. Second, we controlled for the variable of perceived community norms as such norms could have an impact on citizenship behaviors (Nambisan & Baron, 2009). We measured the construct by a four-item scale (Cronbach’s alpha= 0.83), drawn from Nambisan and Baron (2009). Sample items included: “Members of this virtual brand community place considerable value in helping others by promptly answering their product/service related problems.”

All values of composite reliability (in Table 2) and Cronbach’s alpha greater than 0.7 suggest that the multi-item scales have satisfactory reliability levels (Nunnally, 1978). Convergent and discriminant validity of the multi-item scales were assessed via CFA analysis. Convergent validity was confirmed, as all average variance extracted (AVE) values of the latent variables are greater than 0.5 (Table 2), and discriminant validity was achieved, as the square root of AVE for each of the latent variables in the diagonal elements (Table 3) was greater than the latent correlation of its pair with any other constructs (Fornell & Larcker, 1981).

Insert Table 2 about here

3.3 Common method variance

The common method bias arises from self-reported data, which could inflate associations between variables of interest (Podsakoff, Mackenzie, Lee, & Podsakoff, 2003). We took three measures to control and detect the bias effects. First, we deliberately reversed some item anchors in the survey instrument (Podsakoff et al., 2003). Second, we employed a sophisticated research model that included the effects of moderation, mediation, and moderated mediation. This configuration generates cognitive difficulty for respondents in estimating the key associations of interest. Third, to statistically assess the potential effects of common method bias, we incorporated an unmeasured common method factor into the measurement model (Podsakoff et al., 2003). The fit indices of the measurement models with ($\chi^2 = 491.73$; $df = 329$; $p < 0.05$; CFI = 0.96; IFI = 0.95; RMSEA = 0.040) and without ($\chi^2 = 452.77$; $df = 335$; $p < 0.05$; CFI = 0.97; TLI = 0.96; RMSEA = 0.034) the common method factor were then compared. The result indicated that the inclusion of the common method factor did not lead to a significant improvement in the measurement model ($\Delta\chi^2 = 38.96$, $\Delta df = 6$, $p = n.s.$). As such, we believe that the common method bias does not pose a threat to this study.

3.4 Descriptive statistics

Table 3 summarizes the descriptive statistics and includes the means, standard deviations, correlations, and discriminant validity of the variables. The correlation analysis disclosed a positive relationship between promotion focus and CCB ($r = 0.39$, $p < 0.01$) and a negative relationship between prevention focus and CCB ($r = -0.16$, $p < 0.01$) in accordance with Hypotheses 1 and 2 preliminarily. Moreover, promotion focus was positively associated with the desire for online self-presentation ($r = 0.41$, $p < 0.01$), and prevention focus was negatively associated with the desire for online self-presentation ($r = -0.23$, $p < 0.01$). The desire for online self-presentation was positively associated with CCB ($r = 0.55$, $p < 0.01$), which is in line with Hypotheses 3 and 4 preliminarily.

Insert Table 3 about here

3.5 Hypotheses test

Prior to the computation of product terms and the performance of analyses via structural equation modeling (SEM), all variables, with the exception of the categorical ones, were standardized. The SEM generates fewer biases (Edwards & Lambert, 2007) when testing the mediating and moderating influences between the variables with the integrated approach by Mplus 7 (Muthén & Muthén, 2012). Following Williams and Anderson's (1994) procedure, single-item indicators for each of the multi-item variables were produced. Table 4 shows that the model fit the data at an accepted level ($\chi^2 = 11.34, df = 4; p = 0.02; RMSEA = 0.077; CFI = 0.98; TLI = 0.90$).

3.5.1 Main and mediating effects

Main effect analyses indicate that promotion focus is positively associated with CCB ($\beta = 0.37, p < 0.001$), while prevention focus is negatively associated with CCB ($\beta = -0.12, p < 0.05$), thus supporting Hypotheses 1 and 2.

As illustrated in Table 4, desire for online self-presentation is positively associated with promotion focus ($\beta = 0.22, t = 3.56, p < 0.001$), negatively associated with prevention focus ($\beta = -0.20, t = -3.65, p < 0.001$), and positively associated with CCB ($\beta = 0.23, t = 5.07, p < 0.001$).

As indicated in Table 5, the indirect influence of promotion focus on CCB via desire for online self-presentation is significantly positive ($\beta = 0.05, p < 0.01$), while the indirect effect of prevention focus on CCB via desire for online self-presentation is significantly negative ($\beta = -0.05, p < 0.01$). As such, Hypotheses 3 and 4 are supported.

Insert Table 4 about here

Insert Table 5 about here

3.5.2 Moderating effects

The moderating effect of community identification over regulatory focus and desire for online self-presentation is shown in Table 4. Community identification moderates the link between promotion focus and desire for online self-presentation ($\beta = 0.31, p < 0.001$). Following the procedure of Edwards and Lambert (2007), we plotted the interaction at higher (one standard deviation higher) and lower (one standard deviation lower) levels of community identification in Figure 2. For customers with high community identification, promotion focus is more positively associated with desire for online self-presentation ($\beta = 0.48, p < 0.001$) than for customers with low community identification ($\beta = -0.03, p = \text{n.s.}$). Hence, Hypothesis 5 is fully supported.

Community identification moderates the link between prevention focus and desire for online self-presentation ($\beta = 0.12, p < 0.05$). This interaction is illustrated in Figure 3, which indicates that for customers with low community identification, prevention focus is more negatively associated with desire for online self-presentation ($\beta = -0.30, p < 0.001$) than for customers with high community identification ($\beta = -0.10, p = \text{n.s.}$). As such, Hypothesis 6 is fully supported.

Insert Figure 2 about here

Insert Figure 3 about here

3.5.3 Moderated mediation effects

Moderated mediation was tested for the conditional indirect effects at varying moderator levels (Edwards & Lambert, 2007). As indicated in Table 5, the indirect effect of promotion focus on CCB via desire for online self-presentation differs significantly ($\Delta\beta = 0.12, p < 0.01$) when community identification is at a high level ($\beta = 0.11, p < 0.01$) vs. a low level ($\beta = -0.01, p = \text{n.s.}$). Hence, the indirect effect of promotion focus on CCB via the desire for online self-

presentation is moderated by community identification, thus supporting Hypothesis 7.

Similarly, as indicated in Table 5, the indirect effect of prevention focus on CCB via desire for online self-presentation also differs significantly ($\Delta\beta = 0.05, p < 0.05$) when community identification is at a high level ($\beta = -0.02, p = \text{n.s.}$) vs. a low level ($\beta = -0.07, p < 0.01$). As such, Hypothesis 8 is supported.

Insert Table 5 about here

3.6 Robust check

We performed additional analyses to check the robustness of the results derived from the integrated approach using Mplus 7 (Muthén & Muthén, 2012). Alternative statistical analyses in terms of multiple regression analyses were used to verify the findings (Aiken, West, & Reno, 1991). The results of the hierarchical regression analyses are similar to those generated by the SEM solution.

3.6.1 Main and mediating effects

We followed Baron and Kenny's (1986) procedure to examine the effect of mediation. The results are presented as follows: (1) promotion focus-CCB association ($\beta = 0.37, p < 0.001, M6$); prevention focus-CCB association ($\beta = -0.12, p < 0.05, M6$). The results lend support to Hypotheses 1 and 2; (2) promotion focus-online self-presentation association ($\beta = 0.43, p < 0.001, M2$); prevention focus-online self-presentation association ($\beta = -0.21, p < 0.001, M2$); online self-presentation-CCB association ($\beta = 0.49, p < 0.001, M7$); and (3) after inclusion of the mediator (online self-presentation): promotion focus-CCB association ($\beta = 0.19, p < 0.001, M8$) and prevention focus-CCB association ($\beta = -0.02, p = \text{n.s.}, M8$). The partial and full mediation results lend support to Hypotheses 3 and 4.

Insert Table 6 about here

To determine the magnitude of the mediating effects, we performed two separate mediation analyses using the PROCESS macro. A bootstrap test (Model 4; with 10,000

bootstrapped samples; Hayes, 2013) shows: (1) the indirect effect of promotion focus on CCB through desire for online self-presentation was significantly positive ($\beta = 0.19$, $SE=0.05$, $t = 4.30$, $p<0.001$, 95% Confidence Interval (CI) = [0.11, 0.29]); and (2) the indirect effect of prevention focus on CCB was significantly negative ($\beta = -0.13$, $SE=0.04$, $t = 3.61$, $p<0.001$, 95% CI = [-0.20, -0.06]). These results again provide support to Hypotheses 3 and 4.

3.6.2 Moderating effects

As Table 6 depicts, the interaction between regulatory focus and community identification is positively and significantly related to the desire for online self-presentation ($\beta = 0.32$, $p < 0.001$; prevention focus, $\beta = 0.14$, $p < 0.05$, M4). Hence, the results lend support to Hypotheses 5 and 6.

3.6.3 Moderated mediation effects

We verified the moderated mediation effects by using Hayes (2013)'s PROCESS macro (Model 7; with 10,000 bootstrapped samples). As shown in Table 7: (1) the indirect effect of promotion focus on CCB via the desire for online self-presentation was significant when community identification was high ($\beta = 0.20$, $SE=0.04$, $t = 5.42$, $p < 0.001$, 95%CI = [0.14, 0.29]), while the indirect effect of promotion focus on CCB via the desire for online self-presentation was not significant when community identification was low ($\beta = 0.01$, $SE=0.08$, $t = 0.11$, $p = n.s.$, 95%CI = [-0.18, 0.14]). Thus, Hypothesis 7 receives support. (2) The indirect effect of prevention focus on CCB via the desire for online self-presentation was negative and significant when community identification was low ($\beta = -0.13$, $SE=0.05$, $t = -2.69$, $p < 0.01$, 95% CI = [-0.23, -0.04]), while insignificant at high community identification ($\beta = -0.10$, $SE=0.07$, $t = -1.40$, $p = n.s.$, 95% CI = [-0.21, 0.05]). Hence, Hypothesis 8 is thus supported.

Insert Table 7 about here

The results suggest that the indirect effect of promotion focus on CCB via the desire for online self-presentation is positive and significant when consumers have higher levels of community identification, but insignificant when they have lower community identification. Moreover, the indirect effect of prevention focus on CCB via the desire for online self-

presentation is negative and significant when consumers have lower community identification, but insignificant when they have higher community identification.

4 GENERAL DISCUSSION AND IMPLICATIONS

Our findings have important implications to theoretical development and management practice.

4.1 Theory implications

First, our research enriches the CCB theory in virtual brand communities. Prior research has primarily examined CCB antecedents through the study of customer psychological traits, peer-customer aspects, and enterprise and community conditions, respectively, in the marketing and information systems fields (e.g. Anaza, 2014; Hwang & Lee, 2019). Considering that regulatory focus is an under-examined but potentially important psychological variable in CCB research, we extend the research on the antecedents by proposing, testing, and confirming regulatory focus as an intrinsic customer idiosyncrasy and a significant explanation for CCB. As such, we find: (1) promotion focus increases CCB (Hypothesis 1), while (2) prevention focus decreases CCB (Hypothesis 2). Although prior regulatory focus research has revealed how regulatory focus influences organizational citizenship behavior in a workplace context (Shin et al., 2017; Koopmann et al., 2019) or consumer behavior in an in-role (Hsu et al., 2017), the relationship between regulatory focus and CCB in an extra role in a non-workplace context is little understood. Psychological antecedents, especially regulatory focus, have rarely been investigated as a source of CCB. As one of many psychological variables, regulatory focus is not only theoretically relevant, but also practically significant, as it is extremely critical in predicting individual behaviors. By establishing the link that regulatory focus influences CCB, the current study substantially enriches our understanding such behavior.

Second, in explaining mediating mechanism, previous research has ignored the characteristics of online communities. Our study draws from the information systems literature to find a mediating variable—self-presentation—to illustrate the mediating effect. We confirmed the claim (Goffman, 1959; Leary, 1996) that self-presentation is driven by psychological variable and exerts an influence on behavior. Our result suggests that desire for online self-presentation acts as an important explanatory mechanism for the relationship

between regulatory focus and CCB (Hypotheses 3 and 4)—a relationship that has yet to be investigated (Kim et al., 2012). Empirically, only a scant number of studies have examined the desire or intention through which intrinsic traits can impact CCB. This study posits the desire for online self-presentation as a powerful transfer variable, and our results also contribute to the research on the desire for online self-presentation. Although prior studies have concentrated on personal control—a perception produced by contextual conditions—as predictors of the desire for online self-presentation (Kim et al., 2012), the present study suggests that an individual’s psychological makeup in terms of regulatory focus can also influence the desire for online self-presentation. In addition, while previous work has concentrated on in-role consumer behavior as a consequence of the desire for online self-presentation (Kim et al., 2012), the present study shows that extra-role CCB can also be influenced by the same variable. Thus, we promote a more contextualized appreciation of the causes and outcomes of a desire for online self-presentation than those in prior work, and thus an extension of self-presentation theory.

Finally, based on social identification theory and perspective of regulatory fit, we show that customers’ promotion focus is positively related to the desire for online self-presentation and CCB if customers have a good relationship with the community, while customers’ promotion focus is not related to desire for online self-presentation and CCB if customers do not identify with the community (Hypotheses 5 and 7). We also reveal that customers’ prevention focus is negatively associated with the desire for self-presentation online and CCB if customers do not have a good relationship with the community, while customers’ prevention focus is not related to the desire for self-presentation online and CCB if customers identify with the community (Hypotheses 6 and 8). Our findings are consistent with research that has reported a positive role for community identification when it comes to a form of consumer engagement (Bhattacharya & Sen, 2003; Zhou, Zhang, Su, & Zhou, 2012), and we contribute to the abundant literature on identity with a virtual brand community from a social identity perspective. Also, although previous research has considered community identification as an important boundary condition in a virtual community research (Nambisan & Baron, 2007), identification with brand community was exclusively taken as a mediator in CCB research (Hsu et al., 2015). Our findings indicate that brand community identification can act as a boundary

condition of the relationship between regulatory focus, the desire for self-presentation online, and CCB. This study is seemingly among the first to suggest that community identification plays a critical moderating role in CCB.

4.2 Practical implications

Our work also provides relevant insights for practice in prompting CCB in a virtual brand community. First, it is wise for managers to acknowledge that the value of improving customers' CCB can only be realized for promotion-oriented customers, not prevention-oriented customers, because prevention-oriented customers cannot engage in CCB in a virtual brand community. Therefore, it is recommended that managers stimulate promotion-focused behaviors and reduce prevention-based behaviors in a virtual brand community. For example, a daily subscription could feature an update on the community's booming prospects, thereby promoting and stimulating users' expectations of the community. If agreed upon, the community could consider listing some usernames of community members who engage in CCB in the community section. Another suggestion would be to post a weekly CCB ranking and highlight the significant influence of such behavior for customers to deliberately stimulate their promotion focus. The Xiaomi tablet virtual community lists the usernames of highly engaged CCB-performed members within the answer group, which can boost other customers' promotion focus and encourages them to engage in CCB (<https://www.xiaomi.cn/board/561454>).

Second, managers should make an effort to stimulate customers' desire to present themselves as such desire promotes CCB. For example, managers could consider developing user-friendly or beautifying (e.g. Tencent's skin) tools for online self-presentation and provide assistance or direction for improving online presentation skills. Another approach could be to organize community events. For instance, a design competition for an enhanced personal online presentation might be very useful (Kim et al., 2012).

Last but not least, our findings indicate that it is worthwhile for managers to improve customers' community identification because such identification could strengthen the effect of promotion-focus on the desire for self-presentation, and subsequently on CCB. Managers could establish a set of policies, rules, and incentives for enhancing "belonging" cognition that could

provide a sense of belonging and dependence, as well as privacy rules and policies against unfriendly or inflammatory behavior. Also, a brand community can provide customers with rich information, friendly interactive interfaces, and AI-assisted tools to provide one-to-one customized services to improve customers' identification with the community.

4.3 Limitations and future research directions

Limitations exist in this study that could be addressed by future research. First, we find that desire for online self-presentation mediates the relationship between regulatory focus and CCB. An important next step for CCB research would be to probe the effect of other potential mediators, such as customer justice perception (Yi & Gong, 2008). Customer justice perception is often considered an outcome of individual psychological characteristics, and it is likely to facilitate CCB (Yi & Gong, 2008). Second, we have examined community identification as a moderator in the first stage in our moderated mediation model. There might be other possible boundary conditions, such as citizenship behavior of other customers (Yi et al., 2013), which could affect the strength of the relationship between regulatory focus and CCB in the second stage. We hope further research can explore this aspect.

Third, we constructed and used single-item indicators to capture different CCB dimensions. The three dimensions of CCB—recommendation, helping behaviors, and service firm facilitation (Anaza, 2014)—may perform very differently in response to the causal mechanism, as these dimensions have heterogeneous motivational sources. For example, recommendation and helping behaviors are more likely to assist others, while service firm facilitation could benefit customer participants, as improved service derived from such facilitation will eventually reward these customers. Also, the CCB measures are subjective and thus could be biased. Future research should focus on CCB heterogeneity and elaborate the outcome of different CCB types in relation to psychological factors by incorporating both subjective and objective measurements.

Fourth, although the current research enjoys strong theoretical reasoning, future studies could use samples from different sectors or regions to further generalize our findings. Fifth, as we used cross-sectional rather than longitudinal data, it may have caused an endogeneity issue. To overcome this issue, Nambisan and Baron (2009), for example, used time-lagged data of

customer participation in a virtual brand community for a six-month period. Future research should collect CCB data over a longer time period in order to increase the validity of our findings.

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TABLE 1 Synthesis of CCB literature

Author(s)	Sample/procedure	CCB antecedents	Mediator(s) of CCB considered	Moderator(s) of CCB considered	Findings
Yi & Gong (2008)	two studies (n=209; 68); questionnaire survey	Customer justice perception (CJP)	Yes; Positive affect (PA)	No	PA mediates the effect of CJP on CCB.
Bove et al. (2009)	n=484 customers; questionnaire survey	Commitment, credibility and benevolence of service worker	Yes; Personal Loyalty (PL)	No	PL plays a mediating role in the effects of commitment, credibility and benevolence of service worker on customer OCBs.
Bartikowski & Walsh (2011)	n=583 French service customers; printed survey	Customer-based corporate reputation (CBR)	Yes; Commitment and loyalty intentions	No	CBR positively affects commitment, loyalty intentions and CCB, and commitment and loyalty intentions mediate the relationship between CBR and helping the company.
Anaza & Zhao (2013)	n=186 e-shoppers; questionnaire survey	Facilitating conditions (FC), familiarity with e-store (FAM)	Yes; Satisfaction (SAT), loyalty (LOY), commitment (COMM) to e-retailer	No	FAM and FC influence SAT, LOY, and COMM; each of these two variables exerts different effects on three dimensions of CCB.
Yi et al. (2013)	three studies (n=30;182;305); interview, survey and experiment	Other-customer citizenship behavior (OCCB)	No	Yes; Other-customer credibility (OCC), social identity (SI)	OCCB positively affects CCB toward the customer and CCB toward the firm; OCC and SI moderate the effects of OCCB on CCB toward the customer as well as firm respectively.
Anaza (2014)	n=235 students at two public universities; online survey	Agreeableness (AGR) and Extraversion (EXT)	Yes; Perspective taking (PT), empathic concern (EC), satisfaction (SAT)	No	The chain mediating role of PT, EC and SAT is played in the AGR-CCB and also EXT-CCB associations respectively.
Nguyen et al. (2014)	n=285 employees matched with customers; questionnaire survey	service script (SS)	Yes; Perceived service quality (PSQ)	Yes; Customer orientation (CO)	PSQ mediates the relationship between SS and CCB; CO moderates the effect of SS on PSQ.

Hsu et al. (2015)	n=323 Apple Facebook fan page users; online survey	Perceived community-brand similarity (PCBS)	Yes; brand identification (BI), community identification (CI), and brand passion (BP)	No	BI and CI play a mediating role in the relationships between PCBS and BP; BP affects CCB positively.
Zhu et al. (2016)	n=328 active users from 30 online brand communities; online survey	Informational support (IS); emotional support (ES)	Yes; Customer satisfaction (CS)	Yes; Support source	IS and ES significantly affect CCB via CS. IS and ES from firms and other customers exert different effects on CS.
Delpechitre et al. (2018)	n=254 salespersons from the media/telecommunication, information technology and energy companies; online survey	Salesperson emotional intelligence (SEI); understanding emotions (UE); perceiving emotions (PE); regulating emotions (RE)	No	Yes; Salesperson empathy (EMP)	UE and PE have positive effects on CCB; EMP moderates the relationship between RE and CCB.
Hur et al. (2018)	n=615 customers of five commercial banks; online survey	Customers' perceptions of CSR	Yes; Customer-company identification (CCI), affective commitment (AC)	No	CCI and AC partially mediate the effect of Customers' perceptions of CSR on CCB.
Yuksel et al. (2018)	n=118 customer participants; online survey	Consumer work (participation in crowdsourcing)	Yes; Psychological ownership (PO)	Yes; Perceived work amount	PO mediates the effect of consumer work on CCB; perceived work amount moderates the relationship between consumer work and PO.
Assiouras et al. (2019)	n=521 Greek tourists; online survey	Value co-creation	Yes; Guest satisfaction (GS)	No	GS plays a mediating role in the relationship between value co-creation and customers' willingness to engage in CCB.
Chen et al. (2019)	n=381 participants served by 15 large social enterprises; online survey	Organizational legitimacy (OL)	Yes; Network relationship strength (NRS)	Yes; Network heterogeneity (NH)	NRS mediates the effect of OL on CCB; NH moderates the relationship between NRS and CCB as well as the one between OL and CCB.

Chiu et al. (2019)	n=318 Taiwanese customers; online survey	Argument quality (AQ); source credibility (SCR); social comparison (SCO); identity attractiveness (IA); (PR) social media engagement (SE); self-determination (SD)	Yes; Consumer-social venture identification (CSV); personal relevance (PR)	No	AO, SCR and SCO positively affect CSV; LA, SE and SD positively affect PR; and, CSV and PR positively affect CCB.
Hwang & Lee (2019)	n=341 customers; questionnaire survey	Pride; mindfulness	Yes; Public self-awareness (PSA), affective satisfaction (AS)	No	PSA and AS mediate the effects of pride and mindfulness on CCB.
Kim et al. (2019)	n=281 spectators for three tournaments; printed survey	Other consumers' passion; aesthetic scenery	Yes; Excitement, Consumer-to-consumer interaction (CCI)	No	Excitement and CCI play a mediating role in the effects of other consumers' passion and aesthetic scenery on CCB.
Woo (2019)	n=995 customers with experiences of the airline services; online survey	Intangible/tangible sources	Yes; Perceived value (PV)	Yes; Travel types (domestic vs. international trips)	PV plays a mediating role in the relationship between sources and CCB; travel types play a moderating role in the relationship among source, PV and CCB.

TABLE 2 Measurement model: Loadings, construct reliability and convergent validity

Variable	Standardized loading	Standard error	Residual Variance	Standard error	Composite reliability (CR)	Average variance extracted (AVE)
Regulatory focus					0.94	0.56
Promotion focus					0.89	0.57
PRO1	0.73***	0.03	0.47	0.05		
PRO2	0.76***	0.03	0.42	0.05		
PRO3	0.78***	0.03	0.39	0.05		
PRO4	0.78***	0.03	0.40	0.05		
PRO5	0.74***	0.03	0.45	0.05		
PRO6	0.76***	0.04	0.43	0.05		
Prevention focus					0.88	0.54
PRE1	0.78***	0.03	0.39	0.05		
PRE2	0.78***	0.03	0.40	0.04		
PRE3	0.75***	0.03	0.43	0.05		
PRE4	0.73***	0.04	0.46	0.05		
PRE5	0.72***	0.03	0.48	0.05		
PRE6	0.66***	0.04	0.57	0.06		
Community Identification					0.91	0.68
CI1	0.75***	0.04	0.43	0.06		
CI2	0.83***	0.03	0.31	0.04		
CI3	0.88***	0.02	0.22	0.04		
CI4	0.86***	0.03	0.26	0.05		
CI5	0.78***	0.04	0.39	0.06		
Desire for Online Self-presentation					0.86	0.61
DOS1	0.69***	0.05	0.53	0.07		
DOS2	0.85***	0.03	0.28	0.05		
DOS3	0.83***	0.03	0.31	0.05		
DOS4	0.74***	0.04	0.45	0.06		
Customer Citizenship Behaviors					0.91	0.62
CCB1-4					0.87	0.62
CCB1	0.79***	0.04	0.37	0.06		
CCB2	0.83***	0.04	0.32	0.06		
CCB3	0.77***	0.03	0.40	0.05		
CCB4	0.76***	0.04	0.43	0.06		
CCB5-8					0.86	0.61
CCB5	0.79***	0.04	0.37	0.06		
CCB6	0.78***	0.04	0.40	0.06		
CCB7	0.81***	0.03	0.34	0.04		

CCB8	0.75***	0.04	0.43	0.06		
CCB9-11					0.83	0.62
CCB9	0.78***	0.04	0.39	0.06		
CCB10	0.82***	0.04	0.34	0.06		
CCB11	0.77***	0.04	0.41	0.06		
Community Norms					0.83	0.55
CN1	0.80***	0.03	0.37	0.05		
CN2	0.70***	0.04	0.52	0.05		
CN3	0.78***	0.03	0.39	0.05		
CN4	0.68***	0.04	0.53	0.05		

Note. N=310, *p<0.05, **p<0.01, ***p<0.001.

TABLE 3 Means, standard deviations, correlations and discriminant validity

Variables	Means	SD	1	2	3	4	5	6	7	8	9
1.Age	2.13	0.72	-								
2.Gender	0.48	0.50	0.03	-							
3.Education	3.23	0.61	0.00	-0.08	-						
4.Community norm	3.33	0.65	-0.22**	-0.08	-0.04	(0.74)					
5.Promotion focus	3.21	0.62	0.01	-0.04	0.09	0.14*	(0.75)				
6.Prevention focus	3.10	0.63	0.05	-0.06	0.03	0.00	-0.13*	(0.73)			
7.Desire for online self-presentation	3.09	0.72	-0.03	0.01	-0.03	0.20**	0.41**	-0.23**	(0.78)		
8.Community identification	2.82	0.83	-0.01	0.03	-0.19**	0.13*	0.05	-0.16**	0.22**	(0.82)	
9.CCB	3.10	0.66	-0.02	0.01	0.06	0.23**	0.39**	-0.16**	0.55**	0.31**	(0.79)

Note. N=310. Discriminant validity (AVE square root) are on the diagonal in parentheses.

*p<0.05, **p<0.01.

TABLE 4 Results for regulatory focus, desire for online self-presentation and CCB

	Desire for online self-presentation	CCB
ProF	0.22***	0.03
PreF	-0.20***	-0.06
ComId	0.18***	0.20***
ProF* ComId	0.31***	0.33***
PreF* ComId	0.12*	0.03
Desire for online self-presentation		0.23***
Age		0.04
Gender		-0.00
Education		0.10*
Community norm		0.14**

Note. N=310. ProF = promotion focus, PreF = prevention focus, ComId = community identification.
*p<0.05, **p<0.01, ***p<0.001.

TABLE 5 Results of the indirect effects of online self-presentation and community identification via structural equation modeling

Independent Variables	Moderator variable	Indirect Effect	SE
Average indirect effects of ProF		0.05**	0.02
ProF	Low ComId	-0.01	0.02
	High ComId	0.11**	0.03
	difference	0.12**	0.03
Average indirect effects of PreF		-0.05**	0.02
PreF	Low ComId	-0.07**	0.02
	High ComId	-0.02	0.02
	difference	0.05*	0.02

Note. N=310. ProF = promotion focus, PreF = prevention focus, ComId = community identification.
*p<0.05, **p<0.01.

TABLE 6 Results of the moderated mediation analysis

Variables	Desire for online self-presentation				CCB			
	M1	M2	M3	M4	M5	M6	M7	M8
Step1: Controlled variables								
Age	0.02	0.01	0.01	0.03	0.03	0.02	0.02	0.01
Gender	0.03	0.03	0.02	-0.02	0.04	0.04	0.02	0.02
Education	-0.03	-0.06	-0.03	-0.05	0.07	0.03	0.08	0.06
Community Norms	0.23***	0.17**	0.15**	0.17**	0.25***	0.19***	0.13***	0.12*
Step2: Dependent Variables								
Promotion focus		0.43***	0.43***	0.19**		0.37***		0.19***
Prevention focus		-0.21***	-0.18**	-0.21**		-0.12*		-0.02
Step3: Moderator								
Community identification			0.13**	0.16**				
Step4: Interactions								
Promotion focus × Community identification				0.32***				
Prevention focus × Community identification				0.14*				
Step5: Mediator								
Desire for online self- presentation							0.49***	0.41***
df1, df2	4, 305	2, 303	1, 302	2, 300	4, 305	2, 303	1, 304	1, 302
R ²	0.04	0.23	0.25	0.36	0.06	0.20	0.33	0.36
ΔR ²	0.04	0.19	0.02	0.11	0.06	0.14	0.27	0.16
ΔF	3.44**	36.62***	8.35**	26.23***	4.84**	26.75***	123.55***	74.82***

Note. N=310, *p<0.05, **p<0.01, ***p<0.001.

TABLE 7 Results of the indirect effects of online self-presentation and community identification via multiple regression analysis (PROCESS macro)

Dependent Variables	Moderator variable	Moderator Value	Indirect Effect	SE	95% CI	
					LLCI	ULCI
Promotion focus	Low community identification	1.99	0.01	0.08	-0.18	0.14
	Medium community identification	2.82	0.11*	0.05	0.01	0.20
	High community identification	3.65	0.20***	0.04	0.14	0.29
Prevention focus	Low community identification	1.99	-0.13**	0.05	-0.23	-0.04
	Medium community identification	2.82	-0.11**	0.04	-0.19	-0.05
	High community identification	3.65	-0.10	0.07	-0.21	0.05

Note. N=310, Bootstrap samples = 10000. LLCI = lower level for confidence interval, ULCI = upper level for confidence interval.

*p<0.05, **p<0.01, ***p<0.001.

FIGURE 1 The conceptual model of this study.

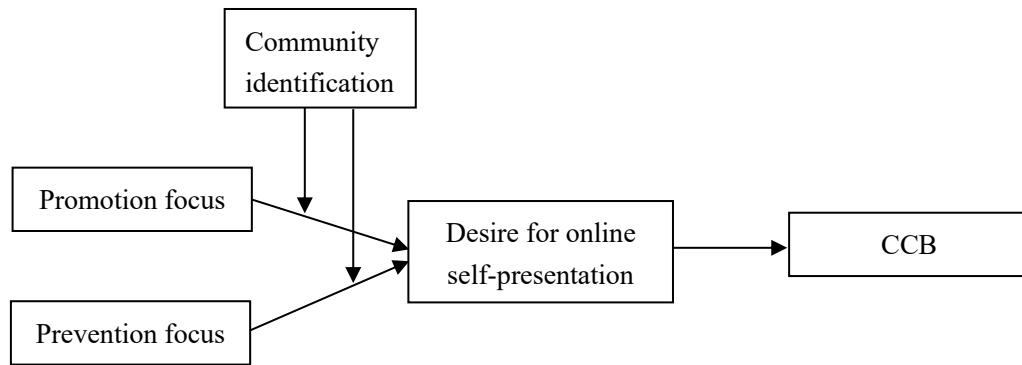


FIGURE 2 Interactive effects of promotion focus and community identification on the desire for online self-presentation

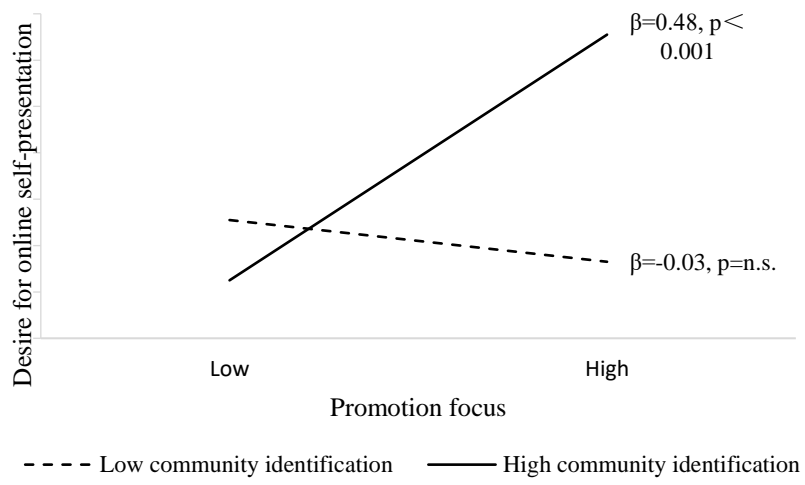
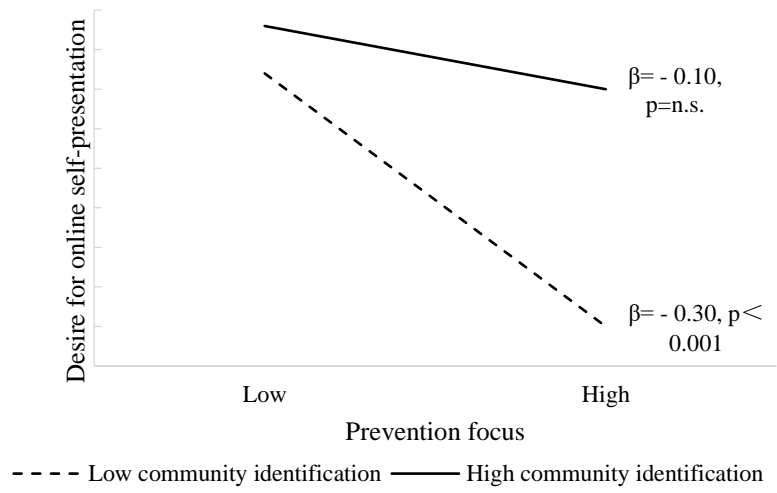


FIGURE 3 Interactive effects of prevention focus and community identification on the desire for online self-presentation



Appendix A: Measurement items

Modified Regulatory Focus (Anchored by “Never” and “Very Often”)

Semin et al. (2005)

Promotion Focus

PRO1 How often have you accomplished things that got you “psyched” to work even harder?

PRO2 Do you often do well at things that you try?

PRO3 I feel like I have made progress toward being successful in my life.

PRO4 Are you a fanatic when you are trying to realize your goals?

PRO5 Are you someone who looks forward to situations in which you expect to have success?

PRO6 I try to reach that in my life, in which I believe.

Prevention Focus (Reverse Scored)

PRE1 Growing up, would you ever “cross the line” by doing things that your parents would not tolerate?

PRE2 Did you get on your parents’ nerves often when you were growing up?

PRE3 Growing up, did you ever act in ways that your parents thought were objectionable?

PRE4 Not being careful enough has gotten me into trouble at times.

PRE5 Do you find that there are things that you have not thought about when you make choices?

PRE6 Do you break rules to reach your goals?

Community Identification (Anchored by “Strongly Disagree” and “Strongly Agree”)

Algesheimer et al. (2005)

CI1 I am very attached to this virtual brand community.

CI2 Other members and I in this virtual brand community share the same objectives.

CI3 The friendships I have with other members in this virtual brand community mean a lot to me.

CI4 If the members in this virtual brand community planned something, I’d think of it as something “we” would do rather than something “they” would do.

CI5 I see myself as a part of this virtual brand community.

Desire for Online Self-presentation (Anchored by “Strongly Disagree” and “Strongly Agree”)

Kim et al. (2012)

DOS1 I want to establish a preferred image for myself in this virtual brand community.

DOS2 I want to present my image in this virtual brand community.

DOS3 I want to project an image about myself in this virtual brand community.

DOS4 I want to give a preferred impression about myself to others in this virtual brand community.

Customer Citizenship Behaviors (Anchored by “Strongly Disagree” and “Strongly Agree”)

Anaza (2014)

Helping Behaviors

CCB1 I assist other members if they need help.

CCB2 I help other members if they seem to have problems.

CCB3 I teach other members to use this virtual brand community correctly.

CCB4 I give advice to other members.

Service Firm Facilitation

CCB5. I fill out a customer satisfaction survey.

CCB6. I provide helpful feedback as to how this virtual brand community can be improved.

CCB7. I provide information when surveyed by this virtual brand community.

CCB8. I contribute personal opinions as to how to improve this virtual brand community.

Recommendation

CCB9. I recommend this virtual brand community to my family.

CCB10. I recommend this virtual brand community to people interested in the brand's products/services.

CCB11 I say positive things about this virtual brand community to others.

Community Norms (Anchored by “Strongly Disagree” and “Strongly Agree”)

Nambisan and Baron (2009)

CN1 Members of this virtual brand community place considerable value:
In helping others by promptly answering their product/service related problems.

CN2 In offering innovative product/service ideas and suggestions to the vendor.

CN3 Being a responsible and contributing member of the community.

CN4 Consistently offering constructive ideas and suggestions on product/service usage to other members.
