



# Effect of social support on customer satisfaction and citizenship behavior in online brand communities: The moderating role of support source



Dong Hong Zhu, Hui Sun, Ya Ping Chang\*

School of Management, Huazhong University of Science & Technology, 1037 Luoyu Road, Wuhan, China

## ARTICLE INFO

### Article history:

Received 27 December 2015  
Received in revised form  
13 April 2016  
Accepted 14 April 2016

### Keywords:

Online brand community  
Social support  
Informational support  
Emotional support  
Customer satisfaction  
Customer citizenship behavior

## ABSTRACT

Customers often join online brand communities to seek support from others when they encounter product problems. Some customers who receive good social support exhibit customer citizenship behavior. This study develops a theoretical model to investigate how social support influences customer citizenship behavior through customer satisfaction with firms in online brand communities. Moreover, the moderating role of support source (i.e., firms vs. other customers) is measured. The research model is tested by using the Partial Least Squares technique. The results show that informational and emotional support significantly affects the customer citizenship behavior of providing feedback to the firm, recommendations, and helping other customers through customer satisfaction in online brand communities. Moreover, informational and emotional support from firms and other customers exert different effects on customer satisfaction.

© 2016 Elsevier Ltd. All rights reserved.

## 1. Introduction

In the past, customers talked about products mainly with acquaintances and shop assistants. The scope of communication was limited by time and place (Wu et al., 2015) and was small for customers. The development of social media technology has brought huge changes. Today's consumers can freely talk about products with acquaintances at a distance and like-minded strangers with common product interests in online brand communities. Online brand communities, which provide venues for customers to talk about products, have undergone a recent unprecedented development (Jung et al., 2014; Ho, 2015).

Customers often join online brand communities to seek support from others when they encounter product problems (Johnson and Lowe, 2015). Some customers who receive good social support exhibit pro-social actions, such as assisting other members in trouble, giving valuable feedback about shopping experience to the firm, and recommending the product to others. Groth (2005) called the voluntary and discretionary pro-social actions as customer citizenship behavior (CCB). Previous studies have proven that customers exhibit CCB after other customers give them social-emotional and instrumental support in a service establishment (Rosenbaum and Massiah, 2007). Social support is a context-

specific construct (Trepte et al., 2015). The pressure from social presence in online brand communities is low, and instrumental support from others is scanty because of the virtuality and anonymity of the network society. How social support influences CCB in online brand communities may differ from that in traditional service organizations. However, how social support precisely influences CCB in online brand communities remains unclear. Moreover, customers can obtain social support both from firms and other customers in online brand communities because of the openness of the network society. Firms and other customers are different support sources. Social support is a multi-dimensional construct (Chiu et al., 2015). Different kinds of social support from different sources exert different influences on people (Mendonca and De Farias Junior, 2015). However, the different influences of different social supports on CCB of firms and other customers in online brand communities are not well understood.

Today, online brand community is a popular platform for customers to obtain social support when they encounter product problems. CCB provides extraordinary value to firms (Ho, 2015). In addition, previous studies find customer satisfaction is an important antecedent of CCB (Bettencourt, 1997; Anaza, 2014). In order to understand how social support drives CCB in online brand communities when customers encounter product problems, this study develops a theoretical model to investigate the influence of social support on CCB through customer satisfaction. Moreover, the moderating role of support source (i.e., firms vs. other customers) is measured. Our findings can help companies take

\* Corresponding author.

E-mail address: [changyphust@126.com](mailto:changyphust@126.com) (Y.P. Chang).

advantage of online brand communities to improve their business performance.

## 2. Conceptual background and hypotheses

### 2.1. CCB

The concept of CCB is derived from organizational citizenship behavior. Scholars increasingly consider customers to be “partial employees” of the organization (Mills and Morris, 1986; Bowen et al., 2000). Groth (2005) formally proposed the concept of CCB by treating customers as “part-time employees.” According to Groth (2005), CCB is “voluntary and discretionary behaviors that are not required for the successful production and/or delivery of the service but that, in the aggregate, help the service organization overall” (p.11).

The antecedent of CCB has recently gained increasing focus in numerous contexts. Nguyen et al., (2014) examined the impact of service scripts on CCB. Curth et al., (2014) analyzed how affective commitment to fellow customers influences CCB. Yi et al., (2013) investigated how other customers’ CCB drives the CCB of focal customers. Anaza and Zhao (2013) examined the influence of e-store familiarization and facilitating conditions on CCB in the context of e-retailing. Rosenbaum and Massiah (2007) explored the influence of intercustomer social support on CCB in a service establishment. However, knowledge of how CCB is shaped by social support in online brand communities remains scarce. The present study focuses on the influence of social support on CCB in online brand communities.

Groth (2005) identifies that CCB has three dimensions: (a) recommendations, (b) providing feedback to the firm, and (c) helping other customers. These dimensions have been widely accepted by other scholars (Anaza, 2014; Bove et al., 2009). The present study also employs these three dimensions.

### 2.2. Social support

According to Shumaker and Brownell (1984), social support is “an exchange of resources between at least two individuals perceived by the provider or recipient to be intended to enhance the well-being of the recipient” (p. 31). Social support is a context-specific construct (Trepte et al., 2015). The online brand community is a crucial context in which social support may happen.

With the development of social media technology, scholars have given considerable attention to the influence of social support in online communities. Chiu et al., (2015) explored the effect of social support on users’ citizenship behaviors toward online communities. Yao et al., (2015) investigated the effect of social support on the life quality of patients in online health care communities. Rosenbaum and Massiah (2007) examined the direct relationship between social support that a customer receives from other customers and CCB in a service establishment. However, knowledge about the influence mechanism of social support on CCB in online brand communities is scarce.

Social support is a multi-dimensional construct (Chiu et al., 2015). Schaefer et al., (1981) classified social support into three types, namely emotional, informational, and tangible support. Cutrona and Russell (1990) suggested five major dimensions of social support, namely emotional, network, esteem, tangible, and informational support. Their classifications have been employed to study online social support in numerous contexts. Coulson et al., (2007) investigated social support in a Huntington’s disease online support group based on the classification of Cutrona and Russell (1990). Evans et al., (2012) investigated social support in online postpartum depression discussion groups based on the

classification of Schaefer et al., (1981). Hajli (2014) examined how social support affects SNS users’ social commerce by classifying social support into emotional and information support. Most studies have demonstrated that emotional and informational supports are the main types of social support in the online context (Coulson et al., 2007; Coursaris and Liu, 2009; Liang et al., 2011; Evans et al., 2012; Hajli, 2014). Online brand community is a kind of network society (Chang et al., 2007). Useful information and emotional concerns may be the needs of customers who have product problems. Thus, the present study adopts emotional and informational support as the dimensions of social support. In addition, social support usually is intangible in online brand communities (Smedley et al., 2015). More casual friendships and self-esteem are not directly related to product problems encountered by customers. Thus, tangible, network, and esteem support are not employed in the present study.

### 2.3. Conceptual model

S-O-R theory explains that social stimulus affects a person’s psychological reaction, which in turn influences his behavioral response (Mehrablan and Russell, 1974). Social support can be regarded as a stimulus. A previous study has demonstrated that social support (stimulus) can drive CCB (behavioral response) in a service establishment (Rosenbaum and Massiah, 2007). The present study is based on S-O-R theory and proposes that customers who receive social support in online brand communities generate related psychological reaction, which in turn exhibits CCB.

Given that previous studies find customer satisfaction as the important antecedent of CCB (Bettencourt, 1997; Anaza, 2014), the present study employs customer satisfaction to describe customers’ psychological reactions. Sections 2.1 and 2.2 show that this study employs recommendations, providing feedback to the firm, and helping other customers as the dimension of CCB and uses informational and emotional support as the dimension of social support.

Moreover, the present study further examines the moderating role of support source in the relationship of social support and customer satisfaction given that different kinds of social support from different sources have different influences on people (Mendonca and De Farias Junior, 2015). Fig. 1 shows the research model.

### 2.4. Hypotheses

Consumers in online brand communities seek social support mainly about product problems they encounter. S-O-R theory states that CCB toward product provider (firm) is influenced by customers’ psychological reaction to the firm. Customer satisfaction is an important psychological reaction in numerous CCB contexts. Porricelli et al., (2014) found that the job satisfaction of

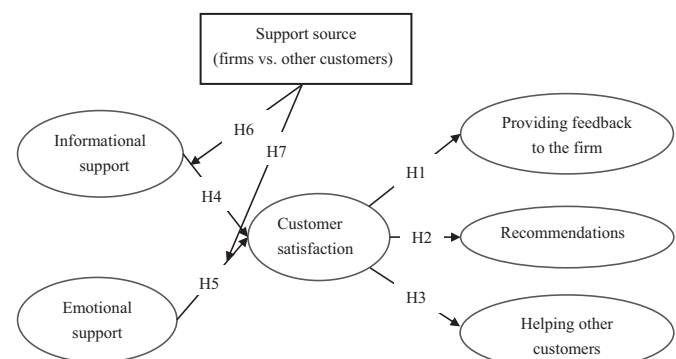


Fig. 1. Research model.

employees is an antecedent of brand citizenship behavior. Anaza (2014) proved that customer satisfaction significantly affects CCB in an online shopping context. Similarly, this study proposes that customer satisfaction toward a firm influences CCB toward the firm. Given that CCB includes providing feedback to the firm, recommendations, and helping other customers, the hypotheses are as follows:

**H1.** Customer satisfaction is positively related to providing feedback to the firm.

**H2.** Customer satisfaction is positively related to recommendations.

**H3.** Customer satisfaction is positively related to helping other customers.

Social support from others can be regarded as a stimulus. S-O-R theory explains that customers who receive social support in online brand communities generate related psychological reactions. Previous studies have demonstrated that social support positively affects people's satisfaction with relevant things in numerous contexts. Zhao et al., (2014) found that people who perceive more social support from others have greater life satisfaction. Chiu et al., (2015) argued that when an online community member receives social support from other members, he experiences a high level of satisfaction with the online community. In online brand communities, the firm is the provider of the product and is involved in social support. Hence, social support may influence customers' satisfaction with the firm. Social support from others brings good mood to customers without negative emotions on the product involved. Social support may help eliminate bad mood when customers have negative emotions on a product, such as suffering from product harm and service failure. Mood congruent theory (Gardner, 1985) explains that good mood increases customer satisfaction with the firm, whereas the alleviation of bad mood reduces customer dissatisfaction. Given that social support includes the dimension of informational and emotional support, the hypotheses are as follows:

**H4.** Informational support is positively related to customer satisfaction.

**H5.** Emotional support is positively related to customer satisfaction.

In online brand communities, customers may get social support from firms and from other customers. Social support is a multi-dimensional construct (Chiu et al., 2015). Bentley et al., (2016) found that social support from organizations and other teleworkers enhances the job satisfaction of teleworkers; however, the influence of social support from different sources may drive different customer reactions. Mendonca and De Farias Junior (2015) found that the type of social support (i.e., encouragement, joint participation, watching, inviting, positive comments, and transportation) associated with physical activity in adolescents varies according to its source (i.e., parents and friends). Min and Wong (2015) found that social support from mental health professionals on the community integration of persons with serious mental illnesses is different from support from family and friends. Similarly, informational and emotional support from firms and other customers may have different influences on customer satisfaction because firms and other customers are different support sources.

As the provider of products, firms are more familiar with the technical specification and standards of products than other customers (Chen and Xie, 2008) and can therefore provide customers with more professional information support. Hence, informational support from firms may be needed by customers who have

relevant product problems in online brand communities. This study proposes that informational support from firms has more effect on customer satisfaction than that from other customers. Moreover, firms and customers mainly have a buyer-seller relationship, and the emotional ingredient is relatively minimal. Customers and other customers are mainly like-minded strangers with common brand interests in online brand communities. Gaining emotional support is an important motivation for users participating in online communities (Zhu and Chang, 2014). Hence, customers having product problems may pay more attention to emotional support from other customers than from firms in online brand communities. This study proposes that emotional support from other customers more affects customer satisfaction than that from firms. The hypotheses are as follows:

**H6.** Informational support from firms has a more positive influence on customer satisfaction than that from other customers.

**H7.** Emotional support from other customers has a more positive influence on customer satisfaction than that from firms.

### 3. Methodology

#### 3.1. Data collection

A questionnaire was used to survey active users of online brand communities. To ensure that social supports participants received happened in online brand communities and to collect sufficient data on the social support from firm sources, members of official online communities of firms were chosen to take the survey. Before the formal survey, ten digital enthusiasts majoring in marketing and regular members of official online communities of Apple Company or Xiaomi Company were surveyed. According to their feedback, several terms of the questionnaire were modified to finish the final version. A professional online survey site was used to collect data from its registered users with the method of systematic sampling. Participants who did not use any official online community in the last three months were excluded through screening questions.

A total of 409 active users of online brand communities finished the questionnaire. Eighty-one questionnaires were excluded because, upon verification, the online brand communities filled out by the participants were not official online communities of the firms. Finally, 328 effective samples from 30 official online communities of firms were used in the following empirical analysis. Most of the firms were electronic product providers, such as Apple, Huawei, and Xiaomi Company. Besides clothing, electronic product is the most popular goods bought online by Chinese (CNNIC, 2015). Forty-six percent participants were male and 54% participants were female. Customers whose age ranged from 18 to 29 years, 30–39 years and 40–60 years comprised 50.6%, 39.3%, 10.1% of the participants, respectively. In addition, a total of 140 participants (42.7%) received the last social support mainly from firms, 127 participants (38.7%) received the last social support mainly from other customers, and 61 participants (18.6%) were not clear regarding the main source of the last social support they received.

#### 3.2. Measurement

Informational support pertains to the perception of a customer who has a product problem that the messages received from other members in online brand communities provide the needed assistance. Emotional support pertains to the perception of a customer that the messages received from other members in online brand

communities include emotional concerns. Measurements for the two constructs were adapted from the study of Liang et al., (2011). Customer satisfaction pertains to the degree to which a customer is pleased with the firm involved in the experience of seeking social support. Measurement for customer satisfaction was adapted from the scale of Hajli (2014). Providing feedback to the firm refers to the degree to which a customer gives useful information to the firm involved in the experience of seeking social support. Recommendations refer to the degree to which a customer recommends the firm involved in the experience of seeking social support to other people. Helping other customers pertains to the degree to which a customer helps other users of online brand communities involved in the experience of seeking social support. Measurement for providing feedback to the firm, recommendations, and helping other customers were adapted from the scale of Groth (2005). All scale items were measured using five-point Likert scales anchored between “strongly disagree (1)” and “strongly agree (5)”.

#### 4. Results

The SmartPLS 2.0 M3 software developed by Ringle et al., (2005) was employed to test the research model.

##### 4.1. Measurement model

About reliability analysis, the Cronbach's  $\alpha$  values of all constructs are higher than 0.8 (Table 1), which meet the criterion of strong reliability suggested by Nunnally (1978). In addition, all the composite reliability (CR) values are higher than 0.8

(Table 1), which meet the criterion of strong reliability suggested by Chin and Gopal (1995).

Reliability analysis tested the convergent and discriminant validity. The loading values of all items are above 0.7, and the average variance extracted (AVE) values of all constructs are above 0.6 (Table 1), meeting the criterion of convergent validity suggested by Fornell and Larcker (1981). All the AVE values are above the corresponding squared correlations among the latent constructs (Table 2), meeting the criterion of discriminant validity suggested by Fornell and Larcker (1981).

##### 4.2. Structural model

The results of the structural model test show that all the standardization path coefficients are statistically significant ( $p < 0.01$ ). The  $R^2$  of customer satisfaction, providing feedback to the firm, recommendations, and helping other customers is 0.522, 0.486, 0.541, and 0.508, respectively (Fig. 2).

Fig. 2 shows that customer satisfaction positively affect providing feedback to the firm ( $\beta=0.697$ ,  $p < 0.01$ ), recommendations ( $\beta=0.735$ ,  $p < 0.01$ ), and helping other customers ( $\beta=0.713$ ,  $p < 0.01$ ). As we hypothesized that customer satisfaction would positively affect providing feedback to the firm, recommendations, and helping other customers, hypothesis H1, H2, and H3 are supported. Informational support ( $\beta=0.471$ ,  $p < 0.01$ ) and emotional support ( $\beta=0.309$ ,  $p < 0.01$ ) positively affect customer satisfaction. As we hypothesized that informational support and emotional support would positively affect customer satisfaction, hypothesis H4 and H5 are also supported.

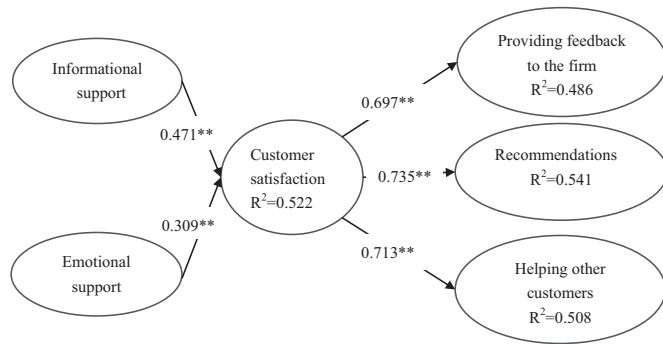
**Table 1**  
Latent variables statistics.

Construct	Item	Loading	AVE	CR	$\alpha$
Informational support	Some people offered me suggestions to solve the problem.	0.872	0.711	0.908	0.864
	Some people gave me information to help me overcome the problem.	0.859			
	Some people helped me discover the course and provided me with suggestions to solve the problem.	0.863			
	Some people told me the way to solve the problem.	0.776			
Emotional support	Some people were on my side with me to face the difficulty.	0.817	0.738	0.919	0.882
	Some people comforted and encouraged me to face the difficulty.	0.875			
	Some people listened to me talk about my private feelings about the difficulty.	0.867			
	Some people expressed interest and concern in my well-being.	0.877			
Customer satisfaction	From this experience, I felt satisfied with the firm.	0.890	0.769	0.909	0.850
	From this experience, I felt pleased with the firm.	0.831			
	From this experience, I felt happy with the firm.	0.909			
Recommendations	From this experience, I am likely to: Refer fellow students or coworker to the firm.	0.886	0.723	0.913	0.872
	Recommend the firm to my family.	0.856			
	Recommend the firm to my peers.	0.822			
	Recommend the firm to people interested in the firm's product or service.	0.835			
Providing feedback to the firm	From this experience, I am likely to: Fill out a customer satisfaction survey.	0.809	0.665	0.888	0.832
	Provide helpful feedback to customer service.	0.827			
	Provide information when survey by the firm.	0.834			
	Inform firm about the great service received by an individual employee.	0.790			
Helping other customers	From this experience, I am likely to: Assist other customers in finding products.	0.845	0.739	0.919	0.882
	Help others with their shopping.	0.882			
	Teach someone how to use the product correctly.	0.871			
	Explain to other customers how to use the product correctly.	0.840			

**Table 2**  
Correlation of constructs and AVE.

Variable	1	2	3	4	5	6
1. Informational support	0.711					
2. Emotional support	0.498	0.738				
3. Customer satisfaction	0.474	0.411	0.769			
4. Recommendations	0.405	0.403	0.541	0.723		
5. Providing feedback	0.444	0.388	0.486	0.434	0.665	
6. Helping other customers	0.467	0.466	0.508	0.472	0.581	0.739

Note: AVE on the diagonal, squared correlation between constructs on the off-diagonal.



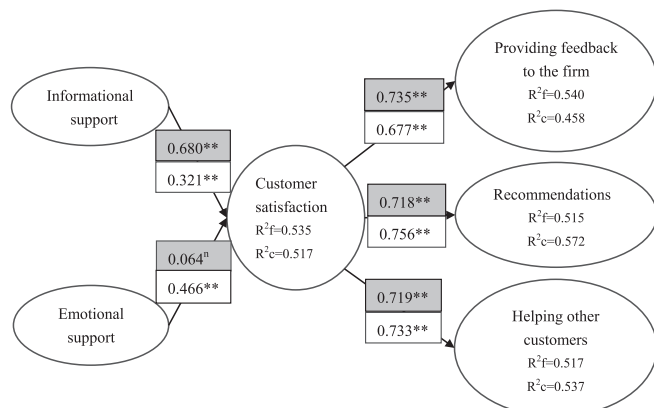
Note: \*\*= $p < 0.01$

**Fig. 2.** PLS Analysis of Research Model. Note: \*\*= $p < 0.01$ .

**4.3. Moderating analysis**

In order to compare the influences of informational and emotional support on customer satisfaction between the support source of firms and other customers, this study evaluated the moderating effects of support source. After removed the 61 participants who were not clear regarding the main source of the last social support they received, the rest consisted of 140 participants who received social supports mainly from firms and 127 participants who received social supports mainly from other customers. The structural models of the two groups were tested by using PLS analysis.

Fig. 3 shows that the influence of emotional support on customer satisfaction is distinctly different between the two groups. The results of further multi-group analysis show that the paths



Note: \*\*= $p < 0.01$ , n=not significant; f=firm; c=other customer. Coefficients for the context that support source is firm are in the shade boxes.

**Fig. 3.** The result of moderating analysis. Note: \*\*= $p < 0.01$ , n=not significant; f=firm; c=other customer. Coefficients for the context that support source is firm are in the shade boxes.

from informational support to customer satisfaction ( $T=2.12$ ) and from emotional support to customer satisfaction ( $T=2.67$ ) are distinctly different between the two groups. In addition, the paths from customer satisfaction to providing feedback to the firm, recommendations, and helping other customers have no significant differences between the two groups.

**5. Discussion**

Customer satisfaction positively influences the CCB of providing feedback to the firm, recommendations, and helping other customers. This result is consistent with the finding of previous studies. Previous studies have proven that customer satisfaction is an important predictor of CCB in numerous contexts (Bettencourt, 1997; Anaza, 2014). This result suggests that customer satisfaction is an important psychological reaction that drives CCB in online brand communities.

Informational support positively affects customer satisfaction, and informational support from firms has more effect on customer satisfaction than that from other customers. When customers encounter product problems, firms can offer them professional advice because each firm, as the provider of the product in question, is familiar with the technical specification and standards of the product. Other customers can provide some information based on their use experience and own knowledge, which are important supplements to the information from firms. Hence, informational support from firms and other customers positively affect customer satisfaction. However, Hesse et al., (2005) indicated that people place more trust on information from professionals when they need specialized knowledge. Firms have more professional and comprehensive product knowledge than customers. Moreover, timely and active informational support can better prove the sincerity of firms. Hence, informational support from firms more positively affects customer satisfaction with firms than that from other customers. This result is consistent with previous studies in other contexts (Mendonca and De Farias Junior, 2015) and shows that informational support from different sources has different effects on customer satisfaction in online brand communities.

Emotional support from other customers exerts a significant influence on customer satisfaction, whereas the influence is not significant when the support comes from firms. Firms and customers mainly have a buyer-seller relationship. Emotional support from firms may be regarded by customers as a way of marketing when customers have no negative emotion on the product that is involved in seeking social support in online brand communities. Customers need firms to provide feasible measures to solve their problem when customers have negative emotions on the product involved in seeking social support. This may be the reason why emotional support from firms exerts no significant effect on customer satisfaction with the firm. Moreover, seeking emotional support from like-minded strangers with common interests is an important motivation for users that participate in online communities (Zhu and Chang, 2014). Customers gather in online brand communities mainly because of common brand interest. Hence, emotional support from other customers may bring good mood or decrease the bad mood of customers and increase customers' satisfaction or reduce their dissatisfaction with firms. This may be the reason why emotional support from other customers exerts a significant positive effect on customer satisfaction. This result is consistent with previous studies in other contexts (Mendonca and De Farias Junior, 2015) and shows that emotional support from different sources exerts a different effect on customer satisfaction in online brand communities.

## 6. Conclusions, implications, and limitation

Based on S-O-R, this study finds that informational and emotional support significantly affects CCB through customer satisfaction with firms in online brand communities. Moreover, informational and emotional support from firms and other customers exert different effects on customer satisfaction.

Regarding theoretical implications, the present study first tests the influence of social support on CCB in online brand communities. Previous studies have investigated the impact of social support on CCB in traditional service situations and the impact of social support on member's citizenship behavior toward online communities. However, knowledge of how social support in online brand communities influences CCB toward the firm that owns the brand is limited. The present study is one of the first to empirically investigate the relationship between social support and CCB in online brand communities. The results confirm that emotional and informational support influence CCB through customer satisfaction with the firm. Second, the present study also demonstrates that customer satisfaction is involved in the relationship between social support and CCB, which reveals the psychological mechanism of the influence of social support on CCB in online brand communities. A previous study demonstrates that social support significantly affects CCB in a service establishment (Rosenbaum and Massiah, 2007); however it did not reveal the psychological reaction of customers. Third, previous research offers no comparative analysis about the influence of different social support sources on CCB. This study finds that informational and emotional social support from firms and other customers exert different influences on customer satisfaction. The conclusion provides additional insights into the influence of social support on customer reaction.

Regarding practical implications, the findings demonstrate that CCB can be shaped by social support in online brand communities and provide companies with a deep understanding of how social support drives CCB in online brand communities. First, companies should give attention to the role of online brand communities in driving CCB. Online brand communities are emerging with the development of social media technology in recent years. However, some companies have failed to understand the importance of online brand communities. Some companies have built online brand communities to go with the trend; however, they do not make good use of it. Customers' helping other customers in online brand communities can relieve companies the stress of pre-sales and post-sales. Customers' recommendations can help companies promote products. Customers' feedback can help companies improve service quality and new product development. This study proves that social support in online brand communities can drive CCB. Hence, companies should strive to use online brand communities to drive CCB. Second, companies should actively provide timely informational support in online brand communities. This study indicates that informational support from firms positively affects customer satisfaction, whereas emotional support from firms does not. The prime importance for companies is to fully use their own advantage in terms of product knowledge to offer real solutions to customers' problems. Third, companies should promote customers' mutual support in online brand communities. This study indicates that informational and emotional support affects CCB through customer satisfaction. Companies can pursue measures to encourage customers to join online brand communities and actively offer informational and emotional support to others with product problems.

Although this study reveals some meaningful conclusions, some limitations need to be addressed in future research. First, the object of the study focuses on official online brand communities that are built by firms. Social support comes from online brand

communities built by customers, and the third party should be addressed in future research. Second, the present study explores the psychological mechanism between social support and CCB from the perspective of customer satisfaction. Other psychological variables can be measured in future research. Third, the present study tests only the moderating effect of the support source. Future research can examine other moderators and control variables, such as different emotions with products before seeking social support and demographic variables.

## Acknowledgements

This work was supported by the National Natural Science Foundation of China (71302093; 71372132).

## References

- Anaza, N.A., 2014. Personality antecedents of customer citizenship behaviors in online shopping situations. *Psychol. Mark.* 31 (4), 251–263.
- Anaza, N.A., Zhao, J., 2013. Encounter-based antecedents of e-customer citizenship Behaviors. *J. Serv. Mark.* 27 (2), 130–140.
- Bentley, T.A., Teo, S.T.T., McLeod, L., Tan, F., Bosua, R., Gloet, M., 2016. The role of organizational support in teleworker wellbeing: a sociotechnical systems approach. *Appl. Ergon.* 52, 207–215.
- Bettencourt, L.A., 1997. Customer voluntary performance: customer as partner in service delivery. *J. Retail.* 73 (3), 383–406.
- Bove, L.L., Pervanb, S.J., Sharon, E., Shiu, B.E., 2009. Service worker role in encouraging customer organizational citizenship behaviors. *J. Bus. Res.* 62 (7), 698–705.
- Bowen, D.E., Schneider, B., Kim, S.S., 2000. Shaping service cultures through strategic human resource management. *Handb. Serv. Mark. Manag.*, 439–454.
- Chang, B., Cheng, N.-H., Deng, Y.-C., Chan, T.W., 2007. Environmental design for a structured network learning society. *Comput. Edu.* 48 (2), 234–239.
- Chen, Y.B., Xie, J.H., 2008. Online consumer review: word-of-mouth as a news element of marketing communication mix. *Manag. Sci.* 54 (3), 477–491.
- Chin, W.W., Gopal, A., 1995. Adoption intention in GSS: relative importance of beliefs. *Data Base Adv.* 26 (2), 42–64.
- Chiu, C.M., Huang, H.Y., Cheng, H.L., Sun, P.C., 2015. Understanding online community citizenship behaviors through social support and social identity. *Int. J. Inf. Manag.* 35, 504–519.
- Coulson, N.A., Aubeeluck, A., Buchanan, H., 2007. Social support in cyberspace: a content analysis of communication within a Huntington's disease online support group. *Patient, Educ. Couns.* 68 (2), 173–178.
- Coursaris, C.K., Liu, M., 2009. An analysis of social support exchanges in online HIV/AIDS self-help groups. *Comput. Human. Behav.* 25 (4), 911–918.
- CNNIC, 2015. The 2014 research report on online shopping market in China. Retrievable at: <http://www.cnnic.cn/hlwfzyj/hlwzxbg/dzswbg/201509/P020150909354828731159.pdf>.
- Curth, S., Uhrich, S., Benkenstein, M., 2014. How commitment to fellow customers affects the customer-firm relationship and customer citizenship behavior. *J. Serv. Mark.* 28 (2), 147–158.
- Cutrona, C.E., Russell, D., 1990. Type of social support and specific stress: toward a theory of optimal matching. In: Sarason, I.G., Sarason, B.R., Pierce, G.R. (Eds.), *Social Support: An interactional view*. Wiley, New York, pp. 319–366.
- Evans, M., Donelle, L., Hume-Loveland, L., 2012. Social support and online postpartum depression discussion groups: a content analysis. *Patient Educ. Couns.* 87 (3), 405–410.
- Fornell, C., Larcker, D.F., 1981. Structural equation models with unobservable variables and measurement errors. *J. Mark. Res.* 18 (1), 39–50.
- Gardner, M.P., 1985. Mood states and consumer behavior: a critical review. *J. Consum. Res.* 12 (3), 281–300.
- Groth, M., 2005. Customers as good soldiers: examining citizenship behaviors in internet service deliveries. *J. Manag.* 31 (1), 7–27.
- Hajli, M.N., 2014. The role of social support on relationship quality and social commerce. *Technol. Forecast. Social. Change* 87, 17–27.
- Hesse, B.W., Nelson, D.E., Kreps, G.L., Croyle, R.T., Arora, N.K., Rimer, B.K., et al., 2005. Trust and sources of health information—the impact of the internet and its implications for health care providers: findings from the first health information national trends survey. *Arch. Intern. Med.* 165 (22), 2618–2624.
- Ho, C.W., 2015. Identify with community or company? An investigation on the consumer behavior in Facebook brand community. *Telemat. Inform.* 32 (4), 930–939.
- Johnson, D.S., Lowe, B., 2015. Emotional support, perceived corporate ownership and skepticism toward out-groups in virtual communities. *J. Interact. Mark.* 29, 1–10.
- Jung, N.Y., Kim, S., Kim, S., 2014. Influence of consumer attitude toward online brand community on revisit intention and brand trust. *J. Retail. Consum. Serv.* 21 (4), 581–589.

- Liang, T.P., Ho, Y.T., Li, Y.W., Turban, E., 2011. What drives social commerce: the role of Social support and relationship quality. *Int. J. Electron. Commer.* 16 (2), 69–90.
- Mehrablan, A., Russell, J.A., 1974. *An Approach to Environmental psychology*. The MIT Press, pp. 62–65.
- Mendonca, G., De Farias Junior, J.C., Physical activity and social support in adolescents: analysis of different types and sources of social support. *Journal of Sports Sciences*, 33 (18), 2015, 1942–1951.
- Mills, P.K., Morris, J.H., 1986. Clients as “partial” employees of service organizations: Role development in client participation. *Acad. Manag. Rev.* 11 (4), 726–735.
- Min, S.Y., Wong, Y.L.L., 2015. Sources of social support and community integration among persons with serious mental illnesses in Korea. *J. Ment. Health (Abingdon, Engl.)* 24 (4), 183–188.
- Nguyen, H., Groth, M., Walsh, G., Thorsten, H.T., 2014. The impact of service scripts on customer citizenship behavior and the moderating role of employee customer orientation. *Psychol. Mark.* 31 (12), 1096–1109.
- Nunnally, J.C., 1978. *Psychometric Theory*. McGraw-Hill, New York.
- Porricelli, M.S., Yurova, Y., Abratt, R., Bendixen, M., 2014. Antecedents of brand citizenship behavior in retailing. *J. Retail. Consum. Serv.* 21 (5), 745–752.
- Ringle, C.M., Wende, S., Will, A., 2005. SmartPLS 2. SmartPLS, Hamburg (Retrieval at) (<http://www.smartpls.com>).
- Rosenbaum, M.S., Massiah, C.A., 2007. When customers receive support from other customers exploring the influence of intercustomer social support on customer voluntary performance. *J. Serv. Res.* 9 (3), 257–270.
- Schaefer, C., Coyne, J.C., Laearus, S., 1981. The health-related functions of social support. *J. Behav. Med.* 4 (4), 381–406.
- Shumaker, S.A., Brownell, A., 1984. Toward a theory of social support: closing conceptual gaps. *J. Social. Issues* 40, 11–36.
- Smedley, R., Coulson, N., Gavin, J., Rodham, K., Watts, L., 2015. Online social support for complex regional pain syndrome: a content analysis of support exchanges within a newly launched discussion forum. *Comput. Human. Behav.* 51, 53–63.
- Trepte, S., Dienlin, T., Reinecke, L., 2015. Influence of social support received in online and offline contexts on satisfaction with social support and satisfaction with life: a longitudinal study. *Media Psychol.* 18 (1), 74–105.
- Wu, J., Huang, L.Q., Zhao, J.L.L., 2015. The deeper, the better? Effect of online brand community activity on customer purchase frequency. *Inf. Manag.* 52 (7), 813–823.
- Yao, T., Zheng, Q.Y., Fan, X.C., 2015. The impact of online social support on patient quality of life and the moderating role of social exclusion. *J. Serv. Res.* 8 (3), 369–383.
- Yi, Y., Gong, T., Lee, H., 2013. The impact of other customers on customer citizenship behavior. *Psychol. Mark.* 30 (4), 341–356.
- Zhao, J.J., Wang, Y.H., Kong, F., 2014. Exploring the mediation effect of social support and self-esteem on the relationship between humor style and life satisfaction in Chinese college students. *Pers. Individ. Differ.* 64, 126–130.
- Zhu, D.H., Chang, Y.P., 2014. Understanding motivations for continuance intention of online communities in China: a comparison of active users of social networking sites and virtual communities. *Inf. Dev.* 30 (2), 172–180.