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Liguo Lou

*Chonnam National University*, alexlou87@hotmail.com

Joon Koh

*Chonnam National University*, kjoon@chonnam.ac.kr

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# Antecedents and Outcomes of Brand Relationship Quality in Brand Communities: A Cross-validation Test of Two Social Media Samples

*Completed Research Paper*

**Liguo Lou**

EC Interdisciplinary Department  
Chonnam National University  
Kwang-Ju, Republic of Korea  
alexlou87@hotmail.com

**Joon Koh**

College of Business Administration  
Chonnam National University  
Kwang-Ju, Republic of Korea  
kjoon@chonnam.ac.kr

## Abstract

*This study adopts the brand relationship perspective to investigate the effects of social media-based brand communities on social marketing performances. An empirical study was conducted to examine the proposed hypotheses. Two analyses, one with 152 survey respondents on Weibo and the other with 209 survey respondents on Facebook, revealed that most of the antecedents (with the exception of monetary needs fulfillment) including information needs fulfillment, entertainment needs fulfillment, and social interaction needs fulfillment had positive effects on brand relationship quality for both Weibo and Facebook. Further, we found that brand relationship quality had positive effects on fans' behavioral intentions toward brands, including willingness to buy, member continuance intention, and electronic word of mouth intention. This study contributes to research that shows brand relationship quality can be improved via a social media-based marketing approach. Implications corresponding to the research findings as well as study limitations and future directions are also discussed.*

**Keywords:** Social media, brand community, needs fulfillment, brand relationship quality, behavioral intention

## Introduction

Social media characterized by social pro-active, visible, real-time, and ubiquitous networks play roles in many aspects of our lives (Hennig-Thurau et al. 2010). Social media can help people enhance their interpersonal connections. On the other hand, marketers believe social media are important marketing tools that can be strategically utilized to facilitate social marketing and advertising, customer relationship management, and brand community (Hennig-Thurau et al. 2010; Singh and Sonnenburg 2012; Ashley and Tuten 2015).

A social media-based brand community is a new type of online brand community enabled by Facebook, Twitter, YouTube, etc. (Pentina et al. 2013; Zaglia 2013). Previous studies have indicated the importance of brand community based in social media. For example, consumers who join social media-based brand communities tend to be loyal and committed to the brands, and are more open to paying attention to information about the brand (Bagozzi and Dholakia 2006). In addition, brand fans in these communities are confirmed to visit the store more often, generate more positive word-of-mouth, and are more emotionally attached to the brand than other consumers (Dholakia and Durham 2010).

Since this type of brand community is combined with the characteristics of social media, it has more advantages for consumer-brand interactions than a traditional community. Within brand communities, brand fans can actively hold conversations and share their enthusiasm with the hosted brands (Laudon and Traver 2014). Furthermore, consumer-brand interactions can be enhanced and,

as a result, the brands can serve as viable relationship partners from the social interpersonal relationship perspective (Fournier 1998; Muniz and O'Guinn 2001; Algesheimer et al. 2005). Developing consumer-brand relationships is an important principle for marketing scholars and practitioners because marketing has shifted from transaction-oriented to relationship-oriented, where consumers are likely to cross the threshold of commercial transactions, build social relationships with the brands, and consider the brands as close friends or committed partners (Sheth and Parvatiyar 1995; Fournier 1998).

Limited research exists on investigating how consumer-brand relationships can be developed in the context of these new brand communities. To address these gaps, this study adopts the brand relationship perspective to investigate whether and in what forms social media-based brand communities enhance consumer-brand relationships. We further examine whether the developed relationships lead to consumers' community behaviors that provide enhanced potential profits for companies. In addition, as the different technological features and business strategies of each type of social media may lead consumers to different experiences within the embedded brand communities, we conduct an examination that covers two types of social media typical to China and Korea to help generalize our research.

The rest of this paper is organized as follows. The next section concerns theoretical background and hypotheses development in which the research model and hypotheses are presented that correspond to the research questions. Subsequent sections include research methods and hypotheses test results. Finally, we discuss the study findings, draw some implications, and share thoughts on future research directions.

## **Theoretical Background and Hypotheses**

### ***Brand Relationship Quality (BRQ)***

Fournier (1998) used the interpersonal relationship metaphor to construct the relationships between consumers and brands: (1) brands can be partners, in which the brand must be an active object that has human characteristics reflected in brand behaviors; (2) relationships are purposive, in which the provision of meanings from brands should meet engaged consumers, namely, brands should help consumers fulfill their needs; and (3) relationships are multiplex phenomena and dynamic, suggesting relationships can be developed via many ways in which the concept of brand relationship quality (BRQ) is proposed as a diagnostic instrument for evaluating relationship strength. Thus, BRQ is defined as a "customer-based indicator of the strength and depth of the person-brand relationship" (Fournier 1994, p. 124). In addition, Fournier proposed a holistic and hierarchical consumer-brand relationship working model in which BRQ evolves through meaningful brands satisfying engaged consumers' needs, and then arouses various consumers' supportive behaviors toward the brands.

BRQ has been mostly studied in the brand community context. For example, Algesheimer et al. (2005, p. 23) defined BRQ as "the degree to which the consumer views the brand as a satisfactory partner in an ongoing relationship." This definition emphasizes the consumer-centric marketing thinking that brands or companies should satisfy community members' needs. A number of previous studies have explored factors affecting BRQ from many aspects. This study addresses the effects of needs fulfillment on BRQ. Needs fulfillment has been confirmed to affect consumer satisfaction and consumer-brand relationships (Berry 1995; Oliver 1995; Au et al. 2008).

Consumers have various motivations to join the brand community when using social media (Sung et al. 2010). Based on Abdul-Ghani et al. (2011), Zhou et al. (2014), and Gao and Feng (2016), this study suggests that consumers participating in a social media-based brand community aim to gain utilitarian, hedonic, social, and monetary benefits from the engaged brand. Thus, in order to satisfy these needs, the brand, as an active partner in the social media platforms, usually fares well in the following aspects: (1) continuously providing the owned and earned brand content that are informational and entertaining to consumers; (2) encouraging consumers to participate in community activities, which is helpful in enlarging members' social connections; and (3) directly providing incentives such as monetary rewards to consumers who are engaged in the brand community.

### ***Brand Content Consumption and BRQ***

Brand content is more than just a form of advertising. In addition, it is story telling for promoting communications between consumers and brands. Brand content consists of anecdotes, photos, videos, or other material (De Vries et al. 2012). Marketers continuously push brand content to members,

providing consumers with useful brand information and fun content (Ashley and Tuten 2015). According to Wu et al. (2015), participators' behaviors in social media-based brand communities could be divided into many forms, including content consumption, content organization, community involvement, and community leadership. Among these, brand content consumption is the most overwhelming. That is, most participants engage shallowly in communities and their aims are to procure information and/or fun content.

According to the uses and gratifications (U&G) theory (Stafford et al. 2004; Sundar and Limperos 2013), the concern in content gratification is whether the message (brand content) carried by social media satisfies users' utilitarian and hedonic needs. Gratifications refer to needs satisfactions, that is, the extent of an individual's benefits obtained from the active use of a certain type of media (Katz et al. 1974). We think that satisfactions with social media uses can be transferred to brands as brand communities are embedded in social media and community members know the brand content was received from their engaged brands. Therefore, content gratifications not only increase social media uses but also enhance consumers' satisfaction with the outcomes of their interactions with the brands, in which consumers fulfill their information and entertainment needs from the brands.

According to Ducoffe's (1995) advertising value perspective, brand content, as a kind of advertising, can provide utilitarian and hedonic values to consumers. Brand content includes informativeness and entertainment components that can make consumers perceive its value and then be satisfied with these communications products of brands. In the context of a social media-based brand community, Park and Kim (2014) demonstrated the experiential (hedonic) benefit and functional benefit obtained from the brand content positively affected BRQ. Taken together, we assume that consumers would be satisfied with their relationships with the brand during their brand content consumption experiences because brand content allows consumers to fulfill their information and entertainment needs. Thus, we have the following hypotheses:

H1: Information needs fulfillment is positively related to BRQ.

H2: Entertainment needs fulfillment is positively related to BRQ.

### ***Social Interaction Needs Fulfillment and BRQ***

Self-determination theory (SDT; Deci et al. 2001) identifies three essential needs of humans that lead to psychological satisfaction and well-being: autonomy, competence, and relatedness. The need for relatedness refers to individuals longing for feeling connected to and understood by others. According to Patrick et al. (2007), the relatedness needs fulfillment has the strongest effect of any of the needs fulfillments on relationship quality including satisfaction and commitment. In this study, we suggest consumers' relatedness needs can be fulfilled within social media-based brand communities, as social interactions of consumers develop well in these virtual environments. Social interaction refers to consumers' tendency to exchange social support, maintain existing relationships, and make new friends in order to enhance their community connections and develop common ground within social media (Pai and Arnott 2013; Gao and Feng 2016). Individuals can seek relational needs fulfillment by socializing with other members in a virtual world (Hung et al. 2011, Zhou et al. 2014).

In the context of a social media-based brand community, brands help consumers interact with other members to effectively attain their social interaction needs fulfillment. Social media-based brand community members can build interpersonal relationships by commenting on and/or sharing brand content in addition to directly communicating with other members (Yang and Li 2016). Furthermore, consumers are often asked to participate in brand promoting-related collaborative activities, such as a use-generated content campaign, in which consumers sharing the same interest can interact with each other and build close relationships (Jahn and Kunz 2012). Accordingly, we believe that consumers who achieve their social interaction objectives will be satisfied with the brands. Thus, we posit the following hypothesis:

H3: Social interaction needs fulfillment is positively related to BRQ.

### ***Monetary Needs Fulfillment and BRQ***

Firms utilize a number of tactics to nurture brand communities. For example, marketers usually provide tangible rewards to community members in order to heighten their enthusiasm (Laudon and Traver 2014). Incentive, as a kind of extrinsic motivation, generally was found to elicit a positive effect on online brand community commitment (Jang et al. 2008). In addition, Baldus et al. (2015) argued that monetary incentive could encourage consumers' brand community engagement.

Providing incentive to consumers can increase their economic benefits and utilities, thus, incentive is usually applied in customer relationship management and customer loyalty programs (e.g., Keh and Lee 2006; Meyer-Waarden 2007). In this study, since incentive from the brands is helpful to consumers in fulfilling their monetary needs, we posit consumers feel more satisfied with the brands. Thus, the following hypothesis is proposed:

H4: Monetary needs fulfillment is positively related to BRQ.

### **BRQ and Behavioral Intentions toward Brands**

As relationships are reciprocal, brand community members whose needs are well fulfilled are likely to do supportive behaviors toward the brands (Fournier 1998). Based on the existing brand community studies, we accept willingness to buy, membership continuance intention, and electronic word-of-mouth intention on the brand as community members' behavioral intentions toward the brand. Willingness to buy refers to an individual's intention to purchase from the brand (Lim et al. 2006). Increasing community members' willingness to buy products is directly related to companies' financial performances (Baldauf et al. 2003). Membership continuance intention is an indicator of the long-term lasting relationships with the brand, which refers to the member's intention to maintain membership and ties to the brand community in the future, playing a crucial role in community development (Algesheimer et al. 2005). The term of electronic word of mouth (eWOM) intention is defined as an individual's intention to recommend the brand to other people via the internet. The essential element of WOM is conveying an individual's brand experiences to other consumers. Therefore, positive eWOM is proposed to have significant impacts on potential customers' brand attitude and purchase decision making (Shih et al. 2013).

A number of prior studies have emphasized brand loyalty, product purchase, membership continuance, and WOM as important outcomes of brand community (e.g., Algesheimer et al. 2005; Brown et al. 2007; Laroche et al. 2012; Laroche et al. 2013; Zaglia 2013). Moreover, Fournier's (1998) brand relationship quality model proposes that BRQ can be a powerful predictor of consumers' supportive behaviors toward the brand.

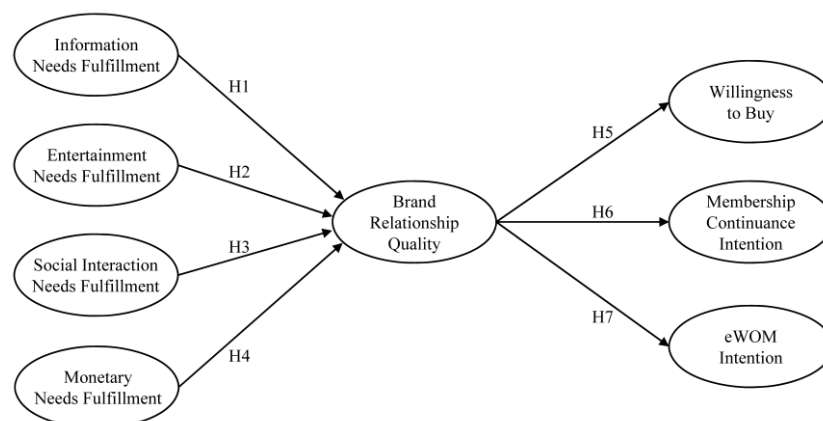
Cognitive consistency theories address individuals' tendency to keep behaviors consistent with their beliefs and feelings in order to attain psychological harmony (McGuire 1976). Sheth and Parvatiyar (1995) applied cognitive consistency theories to state how consumers' behaviors toward brands were influenced by their beliefs and feelings about the engaged brands in relationship marketing. Since BRQ reflects consumers' cognitive and emotional responses to the brand, consumers are likely to exhibit relational behaviors to maintain cognitive consistency. Accordingly, we set the following hypotheses on the relationships between BRQ and consumers' behavioral intentions toward the brand.

H5: BRQ is positively related to willingness to buy.

H6: BRQ is positively related to membership continuance intention.

H7: BRQ is positively related to eWOM intention.

This study addresses the effects of four kinds of consumer needs fulfillment on BRQ in the social media-based brand community context, which leads to consumers' positive behavioral intentions toward the brand. Figure 1 presents the research model.



**Figure 1. Research Model**

## **Research Method**

We used the survey method to collect data and test the proposed research hypotheses. Since this study addresses social media-based brand communities, the unit of analysis is the individual who has ever joined any brand community in social networking services.

### ***Measures***

All the measurements of constructs were drawn from existing literature. Constructs are measured with multiple items based on a seven-point Likert scale (1 = strongly disagree, 7 = strongly agree). The operational definitions and their sources for the constructs are as follows. Information needs fulfillment and entertainment needs fulfillment items were adopted from Ducoffe (1995) and Gao and Feng (2016) and were used to examine the degree of information-related and fun-related benefits gained from brand content consumption, respectively. Social interaction needs fulfillment items were drawn from Gao and Feng (2016) and were referred to the extent of consumers' interpersonal connections enhanced in brand communities. Monetary needs fulfillment was measured by combining Bhattacharjee (2001) and Yoo et al. (2013) to capture the extent of monetary benefits obtained from the brand within the brand community. The measurement items of willingness to buy were adopted from Yeh and Li (2014) and captured brand community members' intentions to buy products from a specific brand. Membership continuance intention items were drawn from Algesheimer et al. (2005) and Wang et al. (2015) and were used to examine consumers' intentions to maintain their memberships in the brand community. An eWOM intention about a brand refers to consumers' intentions to share their brand experiences with other consumers via the internet (Arnold and Reynolds 2009; Eisingerich et al. 2014).

In order to measure BRQ, we critically reviewed Fournier (1998) and Bengtsson (2003). Fournier (1998) used the holistic character of consumer-brand relationship phenomena to conceptualize BRQ in six dimensions: brand love/passion, self-connection, commitment, interdependence, intimacy, and brand partner quality. However, by elaborating on the limitations of BRQ, Bengtsson (2003) proposed that "some of the brand relationship quality constructs are less capable of representing the way consumers relate to their brands" (p. 157). Much subsequent research has developed and utilized BRQ conception, and proposed that measurement of BRQ should be consistent with the research context (e.g., Aaker et al. 2004; Huber et al. 2010; Pentina et al. 2013; Park and Kim 2014). In this study, as we focus on the effects of consumer community needs fulfillment rather than brand use, image congruence, or brand personality etc. on BRQ; instead, we would measure BRQ with commitment, interdependence, and partner quality dimensions (brand love/passion, self-connection, and intimacy were dropped). The instruments of these three dimensions were adopted from Huber et al. (2010).

### ***Data Collection***

Social media can be divided into many types, of which the features and functions are significantly different. Weibo is one of the leading social media in China that can utilize rich media like images, video, music, and even polls, focusing on daily information sharing and interactivity among users, whereas Facebook is the largest social network site that facilitates users enhancing social relationships (Liu et al. 2016). Thus, we decided to select the two representative social media sites, Weibo and Facebook for the data collection. Consumer experiences are likely to vary greatly in brand communities enabled by different social media, which may lead to different levels of needs fulfillment. Accordingly, the BRQ working mechanism is recommended to be examined in different cases. In order to validate these questions, respondents in this study were from users of Weibo in China and Facebook in Korea. We utilized Sojump (<http://www.sojump.com>) to conduct online surveys. The snowball technique was used to distribute survey links. Respondents were first asked to recall their experiences of joining any brand community using Weibo or Facebook, and were requested to record the brand community name on the questionnaire. A total of 361 usable samples (152 for Weibo and 209 for Facebook) were collected. We checked the brand community names and it was revealed that 96 communities and 149 communities were included in the Weibo and Facebook cases, respectively. The demographic information of the samples is shown in Table 1.

## **Results**

### ***Reliability and Validity***

**Table 1. Descriptive Statistics of Respondents' Characteristics**

Category	Item	Weibo		Facebook	
		Frequency	Percentage	Frequency	Percentage
Gender	Male	51	33.6	124	59.3
	Female	101	66.4	85	40.7
Age	<20	23	15.1	13	6.2
	20-29	103	67.8	136	65.1
	30-39	25	16.4	39	18.7
	>39	1	0.7	21	10.0
Education	<Undergraduate	6	3.9	4	1.9
	Undergraduate	114	75.0	143	68.4
	Postgraduate	32	21.1	62	29.7
Occupation	Student	64	42.1	113	54.1
	Non-student	88	57.9	96	45.9
Total	-	152	100	209	100

We ran Smart PLS 3.0 to conduct a confirmatory factor analysis (CFA) to examine reliability and validity. The Weibo and Facebook data were separately tested and compared. As shown in Table 2, the values of composite reliability (CR) and Cronbach's  $\alpha$  for all constructs in both cases were higher than

**Table 2. Results of Reliability and Convergent Validity Tests**

Construct	Indicator	Loadings		CR		AVE		Cronbach's $\alpha$	
		Weibo	FB	Weibo	FB	Weibo	FB	Weibo	FB
Information Needs Fulfillment	INF1	0.842	0.824	0.937	0.914	0.749	0.680	0.916	0.883
	INF2	0.899	0.811						
	INF3	0.905	0.847						
	INF4	0.866	0.849						
	INF5	0.814	0.789						
Entertainment Needs Fulfillment	ENF1	0.873	0.798	0.941	0.928	0.798	0.765	0.916	0.897
	ENF2	0.896	0.915						
	ENF3	0.892	0.901						
	ENF4	0.912	0.879						
Social Interaction Needs Fulfillment	SINF1	0.833	0.764	0.945	0.951	0.775	0.797	0.927	0.935
	SINF2	0.897	0.940						
	SINF3	0.910	0.917						
	SINF4	0.888	0.905						
	SINF5	0.871	0.924						
Monetary Needs Fulfillment	MNF1	0.930	0.936	0.948	0.949	0.858	0.861	0.918	0.919
	MNF2	0.926	0.951						
	MNF3	0.923	0.897						
Brand Relationship Quality	BRQ1	0.888	0.823	0.928	0.924	0.682	0.669	0.906	0.901
	BRQ2	0.801	0.825						
	BRQ3	0.763	0.728						
	BRQ4	0.854	0.840						
	BRQ5	0.868	0.838						
	BRQ6	0.772	0.847						
Willingness to Buy	WTB1	0.921	0.954	0.940	0.963	0.840	0.898	0.905	0.943
	WTB2	0.919	0.938						
	WTB3	0.908	0.951						
Membership Continuance Intention	MCI1	0.937	0.928	0.950	0.959	0.864	0.885	0.921	0.935
	MCI2	0.919	0.954						
	MCI3	0.932	0.941						
eWOM Intention	eWOMI1	0.944	0.944	0.957	0.963	0.881	0.897	0.933	0.943
	eWOMI2	0.945	0.953						
	eWOMI3	0.927	0.946						

(Note) FB: Facebook

the threshold value of 0.7, suggesting a highly acceptable scale reliability and internal consistency (Fornell and Larcker 1981; Gefen et al. 2000). Regarding the convergent validity, in addition to the values of composite reliability (CR) that are higher than 0.7, the standardized factor loadings of indicators for all constructs are significantly greater than 0.7. The values of average variance extracted (AVE) for all constructs exceed the recommended minimum of 0.5, showing a satisfactory convergent validity in the Weibo and Facebook cases (Fornell and Larcker 1981; Gefen et al. 2000).

In order to check the discriminant validity, according to Fornell and Larcker (1981), we compared the square root of AVE for each construct with the inter-construct correlation estimates. Table 3 and Table 4 show the square roots of AVE (the diagonal elements in bold) for constructs and construct correlation estimates on Weibo and Facebook cases, respectively. Each square root of AVE is greater than its corresponding row and column elements, indicating adequate discriminant validity.

Since some constructs showed relatively high correlations, we estimated the variable inflation factor (VIF) values to check the potential multicollinearity. VIF values for antecedent variables in both cases did not exceed the threshold value of 10.0 (i.e., between 1.198 and 2.117), indicating no problem in multicollinearity (Tabachnick and Fidell 1996). In addition, following Podsakoff and Organ (1986), we conducted Harman's one-factor test to check common method bias (CMB). The analyses revealed that there were six latent factors exceeding 1.000 of the eigenvalue to the model for Weibo and Facebook data, and the first factor accounted for less than 50% of the total variance, respectively, suggesting that CMB was not a significant problem in this study.

**Table 3. Construct Correlations and Discriminant Validity for Weibo**

	Mean	S.D.	1	2	3	4	5	6	7	8
1. INF	5.071	1.272	<b>0.866</b>							
2. ENF	4.872	1.239	0.632	<b>0.893</b>						
3. SINF	4.188	1.614	0.322	0.540	<b>0.880</b>					
4. MNF	4.235	1.714	0.351	0.453	0.635	<b>0.926</b>				
5. BRQ	4.701	1.221	0.538	0.626	0.663	0.516	<b>0.826</b>			
6. WTB	5.129	1.323	0.606	0.517	0.417	0.419	0.649	<b>0.916</b>		
7. MCI	4.961	1.326	0.577	0.604	0.534	0.441	0.725	0.680	<b>0.930</b>	
8. eWOMI	4.954	1.355	0.610	0.582	0.518	0.505	0.650	0.577	0.719	<b>0.939</b>

INF: Information Needs Fulfillment, ENF: Entertainment Needs Fulfillment, SINF: Social Interaction Needs Fulfillment, MNF: Monetary Needs Fulfillment, BRQ: Brand Relationship Quality, WTB: Willingness to Buy, MCI: Membership Continuance Intention, eWOMI: eWOM Intention

**Table 4. Construct Correlations and Discriminant Validity for Facebook**

	Mean	S.D.	1	2	3	4	5	6	7	8
1. INF	4.748	1.182	<b>0.824</b>							
2. ENF	4.361	1.302	0.572	<b>0.874</b>						
3. SINF	3.449	1.683	0.291	0.369	<b>0.893</b>					
4. MNF	3.191	1.677	0.113	0.148	0.407	<b>0.928</b>				
5. BRQ	3.802	1.379	0.466	0.451	0.417	0.394	<b>0.818</b>			
6. WTB	4.663	1.493	0.475	0.223	0.162	0.215	0.627	<b>0.948</b>		
7. MCI	4.319	1.500	0.510	0.414	0.349	0.202	0.685	0.576	<b>0.941</b>	
8. eWOMI	4.271	1.559	0.422	0.372	0.340	0.228	0.679	0.576	0.658	<b>0.947</b>

### Hypotheses Tests

We assessed the structural model to test the hypotheses. Figure 2 depicts the hypotheses test results for Weibo. In detail, information needs fulfillment, entertainment needs fulfillment, and social interaction needs fulfillment had positive effects on BRQ ( $\beta = 0.245$ ,  $t = 2.665$ ,  $p < 0.01$ ;  $\beta = 0.211$ ,  $t = 1.967$ ,  $p < 0.05$ ;  $\beta = 0.432$ ,  $t = 3.716$ ,  $p < 0.001$ , respectively), supporting H1, H2, and H3. Since monetary needs fulfillment showed no significant effect on BRQ ( $t = 0.528$ ,  $p > 0.05$ ), H4 was not supported. Further, BRQ showed positive effects on willingness to buy, membership continuance intention, and eWOM intention ( $\beta = 0.649$ ,  $t = 11.821$ ,  $p < 0.001$ ;  $\beta = 0.725$ ,  $t = 12.983$ ,  $p < 0.001$ ;  $\beta = 0.650$ ,  $t = 12.211$ ,  $p < 0.001$ , respectively), which supported H5, H6, and H7.



Figure 3 shows the hypotheses test results for Facebook. In detail, information needs fulfillment, entertainment needs fulfillment, social interaction needs fulfillment, and monetary needs fulfillment all positively influenced BRQ ( $\beta = 0.280, t = 4.410, p < 0.001$ ;  $\beta = 0.193, t = 2.583, p < 0.01$ ;  $\beta = 0.153, t = 2.047, p < 0.05$ ;  $\beta = 0.272, t = 3.924, p < 0.001$ , respectively), supporting H1, H2, H3, and H4. In addition, as anticipated, BRQ had positive effects on willingness to buy, membership continuance intention, and eWOM intention ( $\beta = 0.627, t = 11.967, p < 0.001$ ;  $\beta = 0.685, t = 14.629, p < 0.001$ ;  $\beta = 0.679, t = 13.128, p < 0.001$ , respectively), suggesting H5, H6, and H7 were supported.

Finally, in the case of Weibo, 58 percent ( $R^2 = 0.581$ ) of the variance in BRQ, 42 percent ( $R^2 = 0.421$ ) of the variance in willingness to buy, 53 percent ( $R^2 = 0.526$ ) of the variance in membership continuance intention, and 42 percent ( $R^2 = 0.422$ ) of the variance in eWOM intention were explained by the related antecedent variables. In the case of Facebook, 39 percent ( $R^2 = 0.389$ ) of the variance in BRQ, about 39 percent ( $R^2 = 0.393$ ) of the variance in willingness to buy, 47 percent ( $R^2 = 0.470$ ) of the variance in membership continuance intention, and 46 percent ( $R^2 = 0.461$ ) of the variance in eWOM intention were explained by the related antecedent variables.

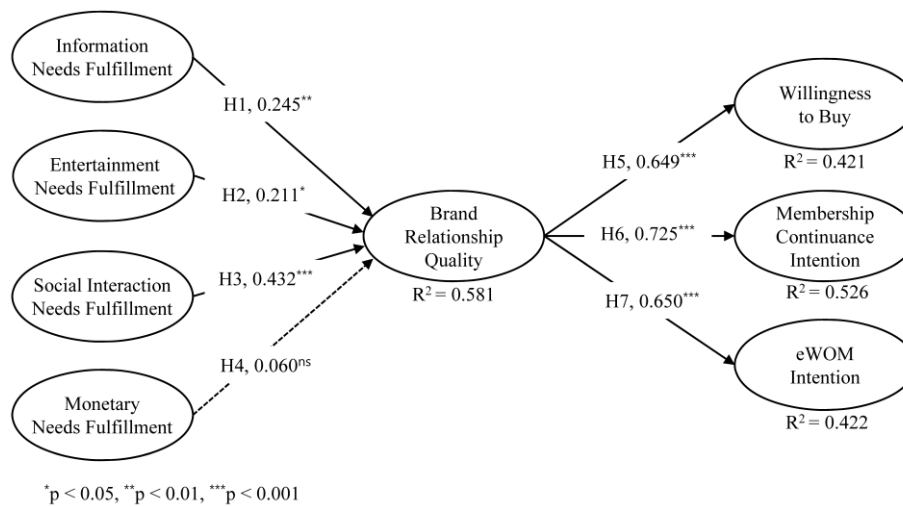


Figure 2. Structural Model Testing Results for Weibo

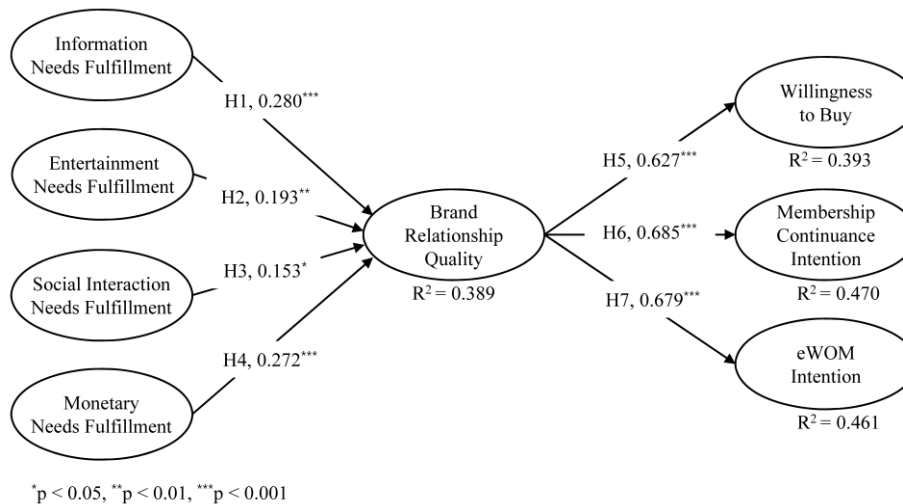


Figure 3. Structural Model Testing Results for Facebook

## Discussion

### Interpretation of the Results

The structural models for Weibo and Facebook were tested separately since the technological features and marketing approach of the two platforms can vary greatly, which leads to different community

interactions and experiences. That is, we examined the two separate models for Weibo and Facebook to investigate whether the same consumers' psychological needs fulfilled within the different brand community context could promote BRQ. The results show that information needs fulfillment, entertainment needs fulfillment, and social interaction needs fulfillment can increase BRQ in both Weibo and Facebook based brand communities. Additionally, BRQ is a strong predictor on both platforms of consumers' behavioral intentions toward the brands.

However, monetary needs fulfillment has no effect on BRQ for Weibo while it has a significant effect on BRQ for Facebook. This implies that Weibo marketing is different from Facebook marketing although they both aim to acquire fans. Regarding Weibo marketing, the celebrity endorsements play a crucial role in marketing performance. Celebrities, also called super bloggers, have many fans and companies usually collaborate with them to execute marketing activities such as introducing the brand communities to their fans. Consumers participating in brand communities may be influenced by their favorite celebrities. In this case, although consumers can obtain some incentives by joining the brand communities, they may process it at a low level of abstraction and intuitively connect with the celebrities rather than the brands. Thus, we interpret that consumers' monetary needs fulfillment did not show any significant effect on BRQ for Weibo.

### ***Theoretical Contributions***

This study addresses a new working mechanism for developing consumer-brand relationships in the social media-based brand community context. Due to the level of communications and active interpersonal interactions between consumers and brands, they might be considered partners (Fournier 1998). Based on Fournier's (1998) brand relationship quality model, we investigated the effects of needs fulfillment on BRQ, a well-known indicator of consumer-brand relationship strength. We further derived four forms of needs fulfillment from utilitarian, hedonic, social, and economic aspects based on consumers' motivations to use social media. Although the needs fulfillment can be found in the traditional offline and Internet-based brand communities, they can be more dynamic in the context of social media environment since social media may greatly enhance the interactions between consumers and brands. In addition, some theories such as the U&G theory, the advertising value perspective, the SDT theory, and cognitive consistency theories were applied to propose the relevant research hypotheses.

This research contributes to understanding the approach to fostering consumer-brand relationships in social media environments. Labrecque (2014) proves the role of parasocial interaction in developing the brand relationship and increasing positive outcomes. This study provides evidence that consumers' needs fulfillment can also enhance brand relationship and contribution behaviors in social media-based brand communities. Furthermore, this research attempted to investigate the working mechanism of BRQ in different platforms. From this, the results support the generalization of this study.

It is important to note that BRQ captures the strength of the connection formed between consumers and brands, which is similar to brand loyalty and it offers a comparative advantage in highlighting consumer-brand relationship formation (Fournier 1998). This research proves that brands, as active objects, help consumers fulfill needs in many ways through approaches reflecting characteristics of Web 2.0 rather than actual brand use. Study findings imply that companies need to build dyadic relationships between the brands and their customers in the social media-based brand community context, of which the impacts may equate to brand loyalty.

Finally, our research also contributes to literature on service-dominant (S-D) logic for branding, in which the consumer-brand relationship focus in branding strategy emphasizes that brands are dependable relationship partners (Merz et al. 2009). That is, S-D logic proposes that value co-creation is relational and therefore requires the process orientation. This study's findings show that if consumers are satisfied with their partner (i.e., brands) via their interactions with brands, they will exhibit contribution behaviors that are positive for branding.

### ***Managerial Implications***

A social media-based brand community is a relatively new form of virtual brand community. Companies utilize these communities to acquire fans, diffuse brand information, introduce new products, and communicate with consumers. This study's findings offer obvious evidence that marketers who combine brand communities with social media are effective in building brand relationships and improving marketing performance.

Consumers within these brand communities can realize informational, hedonic, social, and economic benefits that increase satisfaction with their engaged brands. Thus, marketers or community managers need to react quickly to what consumers want in virtual communities. This observation contributes to understanding why community managers continuously update their sites with useful and interesting content, launch user-generated content campaigns, and sometimes provide incentives for brand fans.

Moreover, the research findings contribute to determining return on investment (ROI) of social media marketing. Willingness to buy, membership continuance intention, and eWOM have the potential to increase companies' revenues. In conclusion, social media marketing expenditures can accelerate business performance.

### **Limitations and Future Research**

In this study, we tested seven hypotheses on two different platforms (Weibo and Facebook) to validate the given research questions. While there are generalization benefits, the sample size needs to be greater and the use of the covariance-based structural equation model analysis is recommended.

This study investigated the relationships between four kinds of needs fulfillment and BRQ, whereas the relative impacts of each path were not tested. Future research can utilize other statistical tools (e.g., AMOS) to confirm the relative impacts within a model or compare them between subgroups.

The brand relationship perspective suggested that the brands could be seen as partners and brand-consumer relationships were depicted as metaphors for interpersonal relationships. According to Clark et al. (1987) and Scott et al. (2013), relationship norms, namely communal orientation and exchange orientation, could influence the relationship quality. Thus, it might be interesting to explore the moderating roles of relationship norms in the BRQ research area.

Finally, this study used the snowball sampling to collect data. However, this technique may cause the community bias, non-random, sampling error, or lack of control. Also, Weibo and Facebook this study selected might not be a good comparison. Therefore, future research that uses the field survey data by random sampling within a specific social media-based brand community is highly recommended.

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