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# DEVELOPING CONSUMERS' BRAND LOYALTY IN COMPANIES' MICROBLOGS: THE ROLES OF SOCIAL- AND SELF-FACTORS

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## Abstract

*This paper aims to explore how social- and self-factors may affect consumers' brand loyalty while they follow companies' microblogs. Drawing upon the commitment-trust theory, social influence theory, and self-congruence theory, we propose that network externalities, social norms, and self-congruence are the key determinants in the research model. The impacts of these factors on brand loyalty will be mediated by brand trust and brand commitment. We empirically test the model through an online survey on an existing microblogging site. The findings illustrate that network externalities and self-congruence can positively affect brand trust, which subsequently leads to brand commitment and brand loyalty. Meanwhile, social norms, together with self-congruence, directly posit influence on brand commitment. Brand commitment is then positively associated with brand loyalty. We believe that the findings of this research can contribute to the literature. We offer new insights regarding how consumers' brand loyalty develops from the two social-factors and their self-congruence with the brand. Company managers could also apply our findings to strengthen their relationship marketing with consumers on microblogging sites.*

*Keywords: Microblogs, Social-factors, Self-congruence, Relationship marketing, Brand loyalty*

## **1. INTRODUCTION**

Microblogging sites provide a platform of information sharing, disseminating, and acquiring based on users' relationships. They have become a popular communication tool in a short period of time. For example, Twitter, the worldwide popular microblogging site, has over 500 million registered users by 2012. Along with the fast growth of users, a number of marketers believe that microblogs can be employed as a new marketing weapon (Li and Shiu 2012). It is possible that companies can make use of this information system to establish their relationships with consumers. As information on microblogs spreads very fast, companies can employ them to attract consumers' attention. Taking Google on Twitter as an example, it got 16,000 followers as soon as it set up its microblog account (Hsu et al. 2010). Currently, the number of Google's followers has reached to over 5.5 million in Twitter. It implies that if Google releases a piece of short message, more than 5.5 million people will receive it.

The potential of establishing companies' microblogs, also known as brand microblogs, has been calling for the need of effective relationship management with their followers. We expect that the relationship marketing literature may provide useful perspectives for us to understand the relationship between consumers and companies on microblogging sites. Prior research has shown that trust and commitment are the two key mediators for the success of relationship marketing (Morgan and Hunt 1994). Companies are advised to make efforts to create trust and commitment of consumers and maintain relationships with them (Ball et al. 2004). It is thus important to explore possible factors that may increase consumers' trust and commitment and achieve positive relationship outcomes. In this study, the positive relationship outcome that we are interested in is brand loyalty. The purpose of this research is to examine what factors can drive consumers to establish trust and commitment toward the brand/company they follow on microblogging sites, and further enhance their loyalty level.

According to Klososky (2012), "social technology is not a subject for any business to ignore" (p. 41). This view is consistent with companies' increasing adoption of the microblogging technology. On a microblogging site, consumers can find a number of microblogs created by many companies. Consumers may develop different levels of brand loyalty toward these microblogs. In this case, we notice that consumers are exposed to homogeneous technological environments that are provided by the microblogging site. To account for the variances in consumers' brand loyalty, the present research will then focus on non-technological factors, which may produce significant impacts on consumers' relationships with companies. In particular, we firstly consider the influence of social-factors. Social-factors emphasize the external influence from social others in social technologies. Prior research shows that social-factors, such as network externalities and social norms, are important as they influence people to adopt and evaluate the communication technology (Dickinger et al. 2008). Self-factor, such as self-congruence, has also been shown to alter consumers' response toward companies and their brands in the marketing literature (Ha and Im 2012). Compared to social-factors, self-factor captures the influence from internal psychological state of consumers. In summary, this paper examines the relationships among social- and self-factors, brand commitment, brand trust, and brand loyalty in microblogs. We intend to contribute to the existing literature by providing a viable framework, which articulates the process of developing consumers' brand loyalty in brand microblogs. The rest of this paper is organized as follows. Firstly, we present the theory background of this paper. Then, we carry out an empirical survey after the research model and hypotheses development. Next, we applied a structural equation modeling approach to analyze the collected data. Finally, we discuss both theoretical and practical implications of this study and address the limitations and future research.

## **2. THEORETICAL BACKGROUND**

Based on the relationship marketing literature, we refer to the commitment-trust theory as one of the theoretical foundations. We also derive from the social influence and the self-congruence theory for

further development of the research model. Detailed information about the theoretical background is discussed as follows.

## **2.1 Commitment-trust theory**

Relationship marketing is an important research area in the marketing literature. Dant and Lapuka (2008) find that the number of articles on relationship marketing has been continuously increasing since 2000. Studies on relationship marketing investigate key elements involved in all forms of relational exchange. Prior research posits that firms are trying to establish mutual trust and maintain long-term relationships with members for managing uncertainties and reducing transaction costs (Anderson and Narus 1990; Ganesan 1994; Geykens et al. 1998; Geyskens et al. 1999; Morgan and Hunt 1994). Important concerns in this line of research include how to retain strong relationships and how to convert indifferent consumers into loyal ones (Berry and Parasuraman 1991). In Morgan and Hunt's (1994) work, they proposed the commitment-trust theory. Trust and relationship commitment were shown to play key mediating roles in the process of establishing, developing, and maintaining successful relationships between different parties. Morgan and Hunt (1994) believe that commitment and trust are key factors in relationship marketing for several reasons. First, the two factors encourage marketers to preserve relationship investments together with their exchange partners. Second, they help marketers maintain relationships with existing partners for expected long-term benefits rather than being attracted by short-term ones. Finally, they enable marketers to believe that their partners may not take opportunistic actions, implying fewer potentially high risk actions. In short, trust and commitment compose a key mediating variable model for relationship marketing. The two factors play important roles in developing successful relationships with consumers.

## **2.2 Social influence theory**

Social influence explains how individuals are affected by others' behavior in social settings (Venkatesh and Brown 2001). According to Deutsch and Gerard (1955), the two types of social influence include informational and normative social influence. Informational social influence refers to the influence when individuals take external information received from others as reality of evidence. In contrast, normative social influence highlights the influence of obeying the expectations of others. In this research, we accordingly operate informational social influence through network externality, whereas using social norms to capture normative social influence. Network externalities occur as individuals refer to many others' behavior as evidence of reality. Prior research indicates that, if more people make use of a product or service, the more influential and valuable the product or service will be (Dickinger et al. 2008). The influence of network externalities increase when the product or service are used by a large number of other users (Chun and Hahn 2007). Social norms, on the other hand, measure the extent to which individuals follow the expectation of other people they think significant to execute a particular behavior (Gerow et al. 2010). Social norms can be viewed as common beliefs and behavioral codes of a social group. Prior research shows that individuals' perception and behavior can be affected by social norms. For example, Dickinger et al. (2008) pointed out that social norms play an important role in driving individuals' perceived enjoyment and usefulness of highly interactive services. Lin (2010) found that social norms have an important effect on loyalty behavior in virtual communities.

## **2.3 Self-congruence theory**

In the marketing literature, the self-congruence theory suggests that a cognitive contrast between consumers' self-concept and the image of a certain object (e.g., brand, product, store, people) can partially determine their responses (Sirgy 1985; Sirgy et al. 2000). Consumers are stimulated to think and act to sustain their self-concepts. Self-congruence appears when people perceive that their self-concepts match with the image of the object. Previous studies show that two self-motivational needs, namely self-consistency and self-esteem, impel the process of one's psychological comparison

with an object (Aaker 1997; Malhotra 1988; Sirgy 1982). Self-consistency need helps people retain their favorable self-concepts, whereas self-esteem need stimulates people to assess themselves as competent and worthy (Chatman 1989; Sirgy 1982). High self-congruence, which makes consumers feel comfortable and good about themselves, can be achieved when they find a wonderful match with their self-concept (Chatman 1989). Researchers have shown that high self-congruence leads to positive consequences, such as product preference (Malhotra 1988), brand preference (Hong and Zinkhan 1995), perceived value and commitment (Zhang and Bloemer 2008), and loyalty (Sirgy 1982; 1985; Zhang and Bloemer 2008).

### 3. RESEARCH MODEL AND HYPOTHESES DEVELOPMENT

Drawing upon the theoretical background, we develop our research model to explicate that network externalities, social norms, and self-congruence are three important antecedents of brand commitment and brand trust, which further lead to brand loyalty. Figure 1 illustrates the research model of this research.

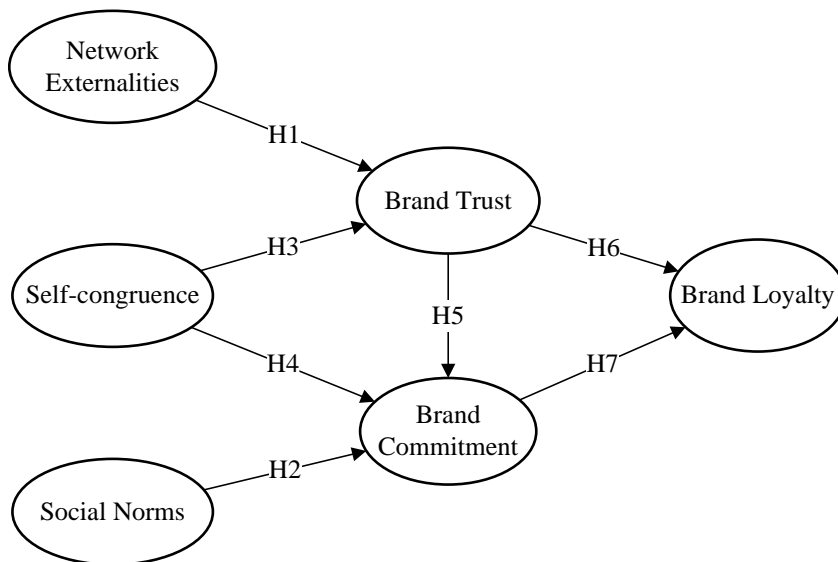


Figure 1. Research Model

#### 3.1 Network externalities and social norms

Network externalities show that network participation can benefits other network users and the network value increases with the growing number of users (Song and Walden 2007). Prior research indicates that network externalities affect many marketing outcomes of modern information technologies (Joe et al. 2010). The function of an increasing network can be improved by positive network externalities (Asvanund et al. 2004). In this study, we employ the concept of network externalities to explain that consumers want to be a fan of a brand microblog as many of his/her family members, relatives, friends, or acquaintances are following the microblog. Previous studies have shown that network externalities influence trust and continuous participation in online communities (Chun and Hahn 2007; Lin and Lu 2011). Wang and Chen (2012) proposed that network externalities may promote participation activities in online communities through enhancing members' trust. Chu and Chan (2009) further contended that members are likely to obtain more useful and accessible information from their family, friends, and coworkers. From these perspectives, we expect that if people find many of their friends and persons nearby follow a brand microblog, their trust toward the brand will be more likely to be strengthened. Thus, we provide the following hypothesis.

*H1: Network externalities are positively associated with brand trust*

In the context of this research, social norms are defined as a consumer's perception of social pressures from important others who recommend him/her to follow a brand microblog. Previous studies find that users' intention to participate could be affected by social norms (Zhou 2011). Social norms may positively influence consumer loyalty (Lee et al. 2009), and commitment (Moliner et al. 2007). In Wang and Chen's (2012) work, they suggested that social norms can increase members' relationship commitment in the context of online communities. Based on these findings, the following hypothesis provided:

*H2: Social norms are positively associated with brand commitment*

### **3.2 Self-congruence**

In the context of this research, self-congruence refers to the connection of consumers' self-concept with the image of a brand. Dunn and Schweitzer (2005) raised that trustworthiness is evaluated by trusters on the basis of trustee characteristics that they perceive. They contended that high level of trust is generated if individuals have identified or had a close connection with friends. Jahn et al. (2012) pointed out if a brand is closely connected with ones' sense of self, then it is more likely to be perceived as trustworthy by consumers. In addition, prior research has also shown that a strong match between self-concepts and the brand can result in consumers' commitment to maintain their relationship with the brand (Thomson et al. 2005). Therefore, we propose the following two hypotheses:

*H3: Self-congruence is positively associated with brand trust*

*H4: Self-congruence is positively associated with brand commitment*

### **3.3 Trust, commitment, and brand loyalty**

In prior literature, brand loyalty has been utilized to describe the characteristics of consumers who have a strong belief in a brand (Day 1969). Two types of loyalty are further identified: attitudinal and behavioral. Attitudinal loyalty is defined as the degree of individuals' cognitive loyalty. Behavioral loyalty refers to consumers' continuous purchasing from the same seller, the increasing scale or scope of a relationship and the recommending behaviors (Yi 1990). In this research, we focus on behavioral brand loyalty.

Trust plays an important role in the establishment of a long-term relationship and partnership in business. Many researchers contend that beliefs, such as benevolence, integrity, and ability, can reflect one's trustworthiness (Doney and Cannon 1997; Leimeister and W. Ebner 2005; Smith and Barclay 1997). In this research, we refer to trust as consumers' trusting beliefs toward a brand. Morgan and Hunt (1994) pointed out that trust is an important factor that determines relationship commitment. The link between trust and commitment is based on theories of long-term exchange (Perlman and Duck 1987). Previous study further proposed that a positive relationship exists between consumer trust and loyalty (Deepak et al. 2002). In summary, we put forward two hypotheses in this research:

*H5: Brand trust is positively associated with brand commitment*

*H6: Brand trust is positively associated with brand loyalty*

Commitment is essential to keep a worthwhile relationship between companies and consumers (Shankar et al. 2003). Moorman et al. (1992) defined commitment as an ongoing intention to sustain a useful relationship. Pritchard et al. (1999) indicated that commitment denotes a likelihood of avoiding change. In this research, we employ brand commitment to describe consumers' commitment to establish and maintain a positive and sustainable relationship with a brand. Aaker (1991) suggested that brand commitment may positively affect brand loyalty. Oliver (1999) concluded that a high level of commitment can lead to consumer loyalty. Moreover, Jang et al. (2008) posited that online brand community commitment has a positive relationship with brand loyalty. Based on these findings, we propose the following hypothesis:

*H7: Brand commitment is positively associated with brand loyalty*

## 4. METHODOLOGY

To validate the research model, we carried out an empirical survey. An online questionnaire was therefore designed to collect real field data.

### 4.1 Data collection

We chose Sina Weibo, a highly popular microblogging site in China, as our research site. Although Sina Weibo is newly built, it has a huge number of users. Many companies, media, politicians, celebrities, and government units are adopting this microblogging site. In this study, we targeted at users who follow brand microblogs on this website. We developed the questionnaire on the basis of constructs' measurements, which have been adopted in previous studies. As the survey was implemented in China, the questionnaire was translated from English to Chinese at first, and then it was back-translated from Chinese to English to check the translation quality. All inconsistencies were solved to improve the questionnaire before the final data collection. To further improve the face validity of the measures, we also invited several experts who are familiar with this field of research and microblogging sites to review the questionnaire. The final questionnaire was then improved based their feedback.

Since no email list was available, we distributed the URL of the online questionnaire in many brand microblogs of Sina Weibo. All respondents followed brand microblogs on the website, such as Lenovo, Dell, Apple, Samsung, and HP. In total, we obtained 301 valid responses for this research. To examine possible non-response bias of this study, we compared the composition of the first 50 and late 50 respondents. The result indicated that no significant differences were found, suggesting that non-response bias may not be a serious concern for this study. Table 1 lists the respondents' demographic characteristics. As shown in the table, 53.5% were males, whereas 46.5% were females. Many of respondents aged from 18 to 30. 61.8% had bachelor degree, and 28.2% held postgraduate degree. 75.1% of the respondents had owned the product of the brand they followed in Sina Weibo.

		Number	Percentage
Gender	Male	161	53.5%
	Female	140	46.5%
Age	Below 18	9	3%
	18-24	204	67.8%
	25-30	76	25.2%
	31-40	12	4%
	About 40	0	0%
Education	Senior high school or below	19	6.3%
	Bachelor	186	61.8%
	Postgraduate	85	28.2%
	Doctor or above	11	3.7%
Income (RMB)	Below 1000	131	43.2%
	1000-2000	22	7.3%
	2001-3000	61	20.3%
	3001-4000	38	12.6%
	4001-5000	22	7.3%
	Above 5000	27	9%
Product possession	Yes	226	75.1%
	No	75	24.9%

*Table 1. Demographic Characteristics*

## 4.2 Measures

All measures were adopted from previous studies with slight modifications to fit the research context. Seven-point Likert scale was applied, from 1=strongly disagree to 7=strongly agree. The measures of constructs are shown in table 2.

Construct	Items	References
Network Externalities	<ol style="list-style-type: none"> <li>1. Many people become fans of the microblog of the brand X.</li> <li>2. Many of my friends become fans of the microblog of the brand X.</li> <li>3. Many of my family members become fans of the microblog of the brand X.</li> </ol>	(Wang and Chen 2012)
Social Norms	<ol style="list-style-type: none"> <li>1. Most people who are important to me think I should be a fan of the brand X microblog.</li> <li>2. The people who I listen to could influence me to be a fan of the brand X microblog.</li> <li>3. My close friend and family members think it is a good idea for me to be a fan of the brand X microblog.</li> </ol>	(Wang and Chen 2012)
Self-congruence	<ol style="list-style-type: none"> <li>1. Brand X is similar to me.</li> <li>2. I feel a personal connection to Brand X.</li> <li>3. Brand X reflects who I am.</li> </ol>	(Escalas and Bettman 2003; Ha and Im 2012)
Brand Trust	<ol style="list-style-type: none"> <li>1. I trust the brand X.</li> <li>2. The brand X is safe.</li> <li>3. This is an honest brand.</li> </ol>	(Sung and Kim 2010)
Brand Commitment	<ol style="list-style-type: none"> <li>1. The relationship that brand X has with me is something I am very committed to.</li> <li>2. The relationship that brand X has with me is something I intend to maintain indefinitely.</li> <li>3. The relationship that brand X has with me deserves my maximum effort to maintain.</li> </ol>	(Morgan and Hunt 1994)
Brand Loyalty	<ol style="list-style-type: none"> <li>1. I will buy the brand X the next time I buy this kind of product.</li> <li>2. I intend to keep purchasing the brand X.</li> <li>3. I will recommend brand X to others.</li> </ol>	(Chaudhuri and Holbrook 2001; Jang et al. 2008)

Table 2. Measures of Constructs

## 5. DATA ANALYSIS AND RESULTS

Partial Least Squares (PLS) was employed to analyze the research model. Previous researchers have shown that PLS is a robust technique that has been frequently adopted in the literature (Ahuja and Thatcher 2005; Gefen and Straub 1997; Venkatesh and Morris 2000). PLS is a component-based structural equation modeling approach, which needs a relatively small sample size without the requirement of normal distribution (Chin et al. 2003). We followed the two-step procedure for the analysis: the measurement model and structural model (Hair et al. 1998).

### 5.1 Measurement model

We examined convergent and discriminant validity of the measures to assess the measurement model. Convergent validity indicates that close relations exist among items of the same construct. Composite reliability (CR) and average variance extracted (AVE) were used to evaluate convergent validity. When CR values are more than 0.7 and AVE values are greater than 0.5, then the results could be



accepted (Fornell and Larcker 1981). Table 3 shows that all CR and AVE values met the requirements, suggesting adequate convergent validity for this study.

	Item	Loading	Mean	Standard Deviation
Network Externalities (NE) CR=0.884; AVE=0.718	NE1	0.850	5.262	1.445
	NE2	0.899	4.439	1.608
	NE3	0.789	3.738	1.705
Social Norms (SN) CR=0.896; AVE=0.742	SN1	0.893	4.176	1.604
	SN2	0.786	4.638	1.589
	SN3	0.900	4.329	1.565
Self-congruence (SC) CR=0.926; AVE=0.807	SC1	0.891	4.894	1.299
	SC2	0.929	4.907	1.402
	SC3	0.875	4.757	1.538
Brand Trust (BT) CR=0.929; AVE=0.814	BT1	0.877	5.442	1.189
	BT2	0.912	5.429	1.278
	BT3	0.917	5.495	1.240
Brand Commitment (BC) CR=0.952; AVE=0.868	BC1	0.921	4.645	1.425
	BC2	0.943	4.884	1.399
	BC3	0.932	4.671	1.484
Brand Loyalty (BL) CR=0.927; AVE=0.809	BL1	0.926	5.246	1.314
	BL2	0.896	4.757	1.451
	BL3	0.876	5.365	1.278

Table 3. Descriptive Statistics of Constructs

Discriminant validity explains the degree of irrelevance between constructs. To examine this validity, two steps were carried out based on Gefen and Straub's (2005) study. First, confirmatory factor analysis with PLS showed all items had high loadings on their corresponding constructs (as depicted in Table 4). The AVE analysis was executed to make sure that different constructs had low relations because their concepts were not relevant. Moreover, we could verify discriminant validity when each construct's AVE square root was greater than its correlations with other constructs (Fornell and Larcker 1981). As shown in Table 5, the discriminant validity was confirmed in this study.

	NE	SN	SC	BT	BC	BL
NE1	<b>0.850</b>	0.419	0.382	0.455	0.376	0.393
NE2	<b>0.899</b>	0.587	0.384	0.340	0.376	0.351
NE3	<b>0.789</b>	0.709	0.445	0.303	0.418	0.328
SN1	0.587	<b>0.893</b>	0.485	0.317	0.515	0.380
SN2	0.491	<b>0.786</b>	0.440	0.313	0.357	0.323
SN3	0.591	<b>0.900</b>	0.539	0.364	0.490	0.367
SC1	0.454	0.542	<b>0.891</b>	0.517	0.638	0.558
SC2	0.392	0.520	<b>0.929</b>	0.459	0.667	0.482
SC3	0.424	0.465	<b>0.875</b>	0.427	0.596	0.498
BT1	0.410	0.357	0.489	<b>0.877</b>	0.561	0.657
BT2	0.359	0.310	0.471	<b>0.912</b>	0.519	0.588
BT3	0.432	0.370	0.450	<b>0.917</b>	0.512	0.619
BC1	0.439	0.519	0.681	0.503	<b>0.921</b>	0.609
BC2	0.408	0.472	0.637	0.608	<b>0.943</b>	0.690
BC3	0.432	0.507	0.659	0.535	<b>0.932</b>	0.687
BL1	0.359	0.361	0.515	0.606	0.646	<b>0.926</b>
BL2	0.421	0.417	0.544	0.607	0.678	<b>0.896</b>
BL3	0.368	0.342	0.481	0.650	0.594	<b>0.876</b>

Table 4. Confirmatory Factory Analysis with PLS

	BC	BL	BT	NE	SC	SN
BC	<b>0.932</b>					
BL	0.711	<b>0.900</b>				
BT	0.590	0.690	<b>0.902</b>			
NE	0.457	0.426	0.445	<b>0.847</b>		
SC	0.706	0.571	0.522	0.471	<b>0.899</b>	
SN	0.535	0.416	0.384	0.650	0.568	<b>0.861</b>

Table 5. Correlations of Constructs (diagonal values are square roots of AVEs)

## 5.2 Structural model

In the structural model, the path coefficients with t-values and the explanatory power of constructs were examined. According to the bootstrapping procedure, the significance of all paths was tested. Figure 2 shows that network externalities ( $\beta=0.256$ ,  $t=3.417$ ) and self-congruence ( $\beta=0.401$ ,  $t=5.475$ ) positively influenced brand trust. Thus, H1 and H3 were supported. Meanwhile, self-congruence ( $\beta=0.467$ ,  $t=6.551$ ), social norms ( $\beta=0.161$ ,  $t=2.673$ ), and brand trust ( $\beta=0.284$ ,  $t=4.708$ ) had positive relationships with brand commitment, which indicated that H2, H4 and H5 were supported. Moreover, H6 and H7 were also supported as the positive effects of brand trust ( $\beta=0.415$ ,  $t=6.294$ ) and brand commitment ( $\beta=0.467$ ,  $t=6.856$ ) on brand loyalty. In short, all hypotheses were supported in this study. 32.3%, 58.3%, and 61.8% of variances in brand trust, brand commitment, and brand loyalty were explained respectively.

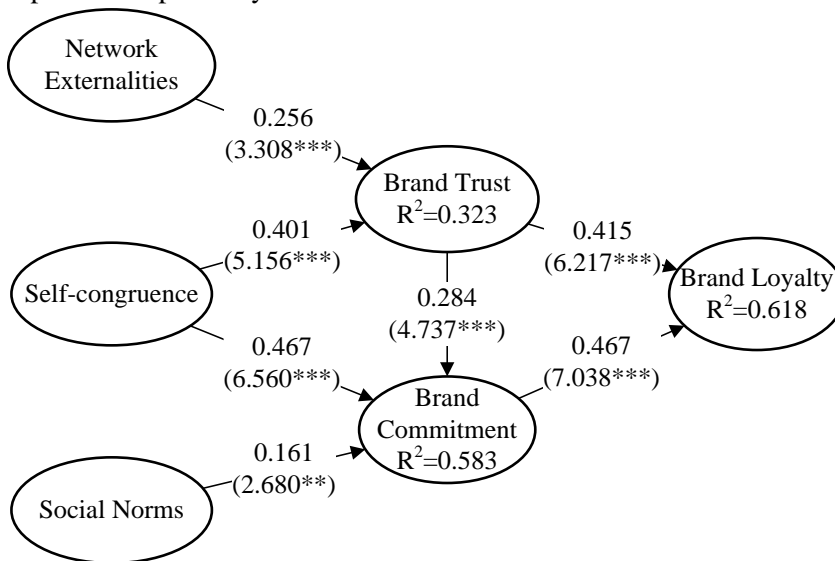


Figure 2. Structural Model (\* denotes  $p<0.05$ , \*\* denotes  $p<0.01$ , \*\*\* denotes  $p<0.001$ )

## 6. DISCUSSIONS AND CONCLUSIONS

The purpose of this study is to investigate whether social- and self-factors can develop consumers' brand loyalty in companies' microblog. Drawing upon the commitment-trust theory, social influence theory, and self-congruency theory, we propose and empirically test our research model through a survey study on an existing microblogging site. Our findings show that consumers' relationship with companies can be strengthened by two types of forces on microblogging sites: the social force from others' following behavior and expectation; and the internal force from comparing self-concept and the image of the brand. Moreover, we find that two social-factors place different roles in affecting companies' relationships with consumers. Network externalities have a significant impact on brand trust, whereas social norms are positively associated with brand commitment. It suggests that

consumers, who follow a brand microblog, will perceive the brand as more trustworthy if they find many people have been following the microblog. In addition, the social pressure from consumers' social group will drive them to develop a strong relationship commitment to the brand. We further find that self-congruence affects both brand trust and brand commitment. The findings highlight the significance of self-congruence in the context of brand microblogs.

## **6.1 Theoretical and practical implications**

We expect that this study can contribute to the existing literature with several theoretical implications. First, we examine the effects of social- and self-factors on brand loyalty through the mediating roles of brand trust and brand commitment in companies' microblogs. Although prior research contends that technological factors may be important in affect users' behavior and other related aspects of online communities (Chen 2007), the present research shifts the focus on other importance factors, such as social- and self-factors. We believe that this is one of the first studies that take account of these two groups of factors to examine brand loyalty in companies' microblogs. Second, we find that social-factors, including network externalities and social norms, are vital to enhancing consumers' brand trust and brand commitment respectively. The findings are consistent, in part, with Wang and Chen's (2012) work, who offered theoretical insights on how social-factors influence members' interaction ties, trust, and their commitment to online communities. We further show that network externalities positively affect brand trust, whereas social norms have a significant influence on brand commitment in the context of microblogs. Finally, this study is one of the first ones that consider the role of self-congruence in understanding consumers' brand loyalty development through companies' microblogs. We find that self-congruence can posit positive impacts on both brand trust and brand commitment. These findings are consistent with some prior marketing studies. For instance, Zhang and Bloemer (2008) found a positive relationship between consumers' self-congruence and commitment. Ha and Im (2012) indicated that self-congruence is important in affecting consumers' shopping evaluation and their loyalty formation.

This research also offers significant implications for practitioners. Our findings may help companies recognize the importance of network externalities and social norms, while they establish their brand microblogs and maintain their relationships with consumer follower. The administrators of brand microblogs may keep promoting their microblogs to attract more followers. They may also encourage current followers to recommend and invite their friends to follow the brand microblogs. Rewards or luck draws could be provided to motivate such recommendation behavior. In this case, network externalities and social norms could be established, which affect consumers' brand trust and brand commitment and further lead to a high level of brand loyalty. Additionally, the findings show that self-congruence could indirectly affect brand loyalty through both brand trust and brand commitment in companies' microblogs. Consumers would trust and be committed to the companies if they find companies' images are similar to their own concepts. From this perspective, companies may establish certain personality to maintain relationship with consumers in their brand microblogs. For instance, administrators of brand microblogs may frequently post humanized and relevant information to their followers.

## **6.2 Limitations and further research**

We believe that this study also has some limitations. First, the sample was collected on an existing microblogging site. Future research may improve the generalizability of this research to other populations of more microblogging sites. Second, the survey study was carried out in China. It is possible that our results may be subject to the culture of different countries. Future research can extend this study by including the role of culture in the research model. Finally, there may be other important factors missing in the research model. For instance, previous researchers indicate that consumer satisfaction may affect consumers' loyalty (Anderson et al. 1994; Ittner and Larcker 1998). Jang et al. (2008) examined the effects of online communities' characteristics on commitment and brand loyalty.

Thus, future research may consider the roles of other possible factors to enhance our understanding of brand loyalty development in companies' microblogs.

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