

**This is an electronic reprint of the original article.
This reprint *may differ* from the original in pagination and typographic detail.**

Author(s): Munnukka, Juha; Karjaluoto, Heikki; Tikkanen, Anna

Title: Are Facebook brand community members truly loyal to the brand?

Year: 2015

Version:

Please cite the original version:

Munnukka, J., Karjaluoto, H., & Tikkanen, A. (2015). Are Facebook brand community members truly loyal to the brand?. *Computers in Human Behavior*, 51(Part A, October), 429-439. <https://doi.org/10.1016/j.chb.2015.05.031>

All material supplied via JYX is protected by copyright and other intellectual property rights, and duplication or sale of all or part of any of the repository collections is not permitted, except that material may be duplicated by you for your research use or educational purposes in electronic or print form. You must obtain permission for any other use. Electronic or print copies may not be offered, whether for sale or otherwise to anyone who is not an authorised user.

ARE FACEBOOK BRAND COMMUNITY MEMBERS TRULY LOYAL TO THE BRAND?

Juha Munnukka

Assistant Professor

juha.t.munnukka@jyu.fi

Heikki Karjaluoto¹

Professor of Marketing

heikki.karjaluoto@jyu.fi

Anna Tikkanen

PhD Candidate

anna.k.tikkanen@student.jyu.fi

All at the Jyväskylä University School of Business and Economics, P.O.Box 35, FI-40014,
University of Jyväskylä, Finland

¹ Corresponding Author
Tel.: +358 40576 7814

ARE FACEBOOK BRAND COMMUNITY MEMBERS TRULY LOYAL TO THE BRAND?

Abstract

This study examines members of Facebook brand communities and tests the relationships between their commitment to the community and brand loyalty. A conceptual model on the linkages between brand community commitment, community promotion behavior and brand loyalty including attitudinal loyalty, repurchase intention and positive word-of-mouth (WOM) is developed and tested with two samples. Data from 3,305 Facebook brand community members were analyzed using partial least squares structural equation modeling. The results show that brand loyalty is influenced by brand community commitment and community promotion behavior. Brand community commitment and community promotion behavior have the largest effect on positive WOM in both samples.

Keywords Brand community commitment, Community promotion behavior, Attitudinal loyalty, Repurchase intention, Word-of-mouth

Introduction

In social media era, consumers interaction with brands and with one another in content creation activities is forcing companies to change their communication practices and branding activities to reflect a more participatory approach. Research on brand communities has concentrated on identifying specific attributes of communities (Muniz & O'Guinn 2000) and brand community commitment (Hur et al. 2011) as well as relationships that are formed within brand communities (Habibi et al. 2014); such research has also focused on exploring the relationships between brand use, brand communities, and social networks (Schau et al. 2009). Previous studies have shown a positive link between online brand community participation and customer loyalty (Algesheimer et al. 2005; Gummerus et al. 2012). In the same vein, Gamboa and Gonçalves (2014) find that Facebook brand community commitment is positively related to enhanced customer loyalty. Brand community membership also predicts an individual's behavior within and outside of a community (Algesheimer et al. 2005; Casaló et al. 2007) and indicates and stimulates his/her purchasing intentions (Cheung & Lee 2012).

In terms of brand community participation, previous studies have examined the effects of community practices (Schau et al. 2009), brand community commitment (Hur et al. 2011), and participation motives (Nambisan & Baron 2007). In a qualitative study of brand communities that manifest both online and offline, Schau et al. (2009) illustrated how brand communities collectively generate value through the processes of community engagement, social networking, brand use, and impression management, i.e., word-of-mouth (WOM) behavior. However, there is still a lack of evidence verified through a quantitative empirical examination to describe in detail how consumers' brand manifestations in online communities converge with brand loyalty

manifestations outside of these communities. In addition, Habibi, Laroche and Richard (2014) state that there is a need for research taking the social context dimension as it differs from previous online platforms. Therefore, we extend this stream of research (Algesheimer et al. 2005; Schau et al. 2009; Gamboa & Gonçalves 2014) by examining how brand loyalty is related to brand community commitment, to the intention to spread information and to community promotion behavior in Facebook brand communities.

The importance of customers spreading positive messages to others about a company and its products has been widely recognized and linked to company profits and revenues (Reichheld 2003). Brown et al. (2007) showed that consumers consider peer opinions and recommendations to be more trustworthy than company-generated information. The content of a peer message is perceived as more meaningful and relevant (Mazzarol et al. 2007) when the sender is not connected to the brand. However, more research is needed on the causal linkages between the conversational elements within consumer networks (i.e., community promotion) and performance outcomes (Adjei et al. 2010), such as repurchase intention and WOM. For example, the European Communication Monitor (2012) highlighted the importance of online brand communities and emphasized the need to increase competence in the use of this medium for marketing activities. Prior studies have also been limited insofar as they have focused solely on college students (Chu & Kim 2011), examined brand communities in a single-brand context (Marzocchi et al. 2013), measured the behavioral intention to share WOM rather than to engage in actual WOM behavior (Yeh and Choi 2010) or studied only the direct effects of community commitment on brand loyalty (rather than the indirect and total effects) (Hur et al. 2011; Kim et al. 2008). In summary, there are still notable gaps in our understanding of how consumers'

commitment to online brand communities, such as Facebook brand communities, manifests in different forms of community outcomes and brand loyalty.

Research on Facebook brand communities and their effects on performance outcomes (such as brand loyalty) is important because an increasing number of companies are investing time and money in managing brand communities in social networks, although uncertainties remain with respect to the ROI of these investments. To date, only a handful of studies have examined Facebook brand communities. Whereas Ruiz-Mafe et al. (2013) examined the drivers of customer loyalty in Facebook fan pages, Gamboa & Gonçalves (2014) looked at how Facebook affects loyalty drivers between fans and non-fans. The limited evidence suggests that Facebook communities work in a similar manner compared to other online brand communities, confirming a positive effect of the community on customer loyalty. In Finland, where the empirical data for this study were obtained, nearly 90% of those aged 18–24 and around half of the Finnish adult population have a user profile on Facebook (Statistics Finland 2013), and the platform's global active user base is around 1.20 billion (Facebook, 2015). Therefore, a current examination of online brand communities, particularly Facebook brand communities, is relevant and concerns nearly every company wanting to build stronger relationships with its customers and its prospective customers online. However, it is notable that Facebook is particularly important to younger people: thus, only 22% of the 55-64 age group in Finland have a Facebook profile (Statistics Finland 2013).

This study aims to address the aforementioned limitations and to contribute to current knowledge in several respects. First, we build and empirically test a comprehensive conceptual model

explaining how brand loyalty is formed and strengthened through online brand community commitment and its outcome, community promotion behavior. Second, we contribute to prior research by testing the effects of brand community commitment and its outcomes as well as brand loyalty. Finally, we examine the direct and indirect effects of community promotion behavior on three aspects of brand loyalty: attitudinal loyalty, repurchase intention, and WOM. This information can help companies better understand the value of a Facebook brand community for brand loyalty and specifically for WOM behavior.

Hur et al. (2011, p. 1196) defined a brand community as a “group of people who possess a particular brand or who have a strong interest in a brand, and who are active both online and offline.” A brand community is considered as a meeting place for brand users connecting them to the brand and allowing them to interact with the content and with each other (Gummerus et al. 2012). Brand community commitment refers to each community member’s attitude toward the community, which is “a predictor of a member’s actual behaviors in an online community, such as participating in community activities, offering help to the community and solving problems for others” (Hur et al. 2011, p.1198). The outcome of brand community commitment is examined through online brand community promotion (Koh & Kim 2004). Community promotion behavior relates to the activity of promoting the brand community to others outside of the Facebook brand community (Koh & Kim 2004).

We conceptualize online brand community commitment and brand community promotion as brand-related activities restricted to online channels that are antecedents of brand loyalty. Our conceptualization of brand loyalty includes three aspects: attitudinal loyalty, repurchase intention,

and WOM. Sirdeshmukh et al. (2002, p. 20) posited, “consumer loyalty is indicated by an intention to perform a diverse set of behaviors that signal a motivation to maintain a relationship with the focal firm including...positive word of mouth (WOM), and repeat purchasing.”

Attitudinal loyalty refers to the degree of dispositional commitment to a brand (Chaudhuri & Holbrook 2001) in terms of liking and loyalty to spread information, such as value, quality and price (Oliver 1999). Repurchase intention is defined as a measure of loyalty intention, which is an antecedent of loyalty behavior (cf. Algesheimer et al. 2005). Following the suggestion of de Matos and Rossi (2008), we define attitudinal loyalty, repurchase intention and WOM as items that are independent of the loyalty construct.

In the following section, we briefly describe the study framework and subsequently develop hypotheses regarding how brand community commitment, community promotion behavior, attitudinal loyalty and repurchase intention drive WOM, which is followed by a description of the methods and measures used to test the framework. We present the results in the penultimate section and close with a discussion of the results that addresses the theoretical, managerial, and research implications of these findings.

The Effects of Online Brand Community Dynamics on Brand Loyalty

Social media has proven to be an effective channel through which to influence consumers’ brand perceptions and consumption behavior (e.g., Marzocchi et al. 2013). This finding highlights the need to thoroughly understand the forms and especially the consequences of consumers’ participation in personal networks, particularly on Facebook (Gamboa & Gonçalves 2014). Brand community commitment is closely connected to social behavior between community

members that collectively creates value for a company and customers (Hur et al. 2011; Oestreicher-Singer & Zalmanson 2013). Brand owner–led communities enable companies to engage in closer and more collaborative relationships with customers and to gain a better understanding of their behavior (Laroche et al. 2012). Online brand communities are understood to be effective platforms for both brand owners and customers (Adjei et al. 2010) that enhance the development of loyal customer relationships (Casaló et al. 2007; Laroche et al. 2012). Brand communities act as a means to enhance customer involvement in marketing dialogue with brands and to foster customer interactions with one another (Hur et al. 2011). These interactions have been found to positively affect customers’ brand perceptions (Marzocchi et al. 2013), brand loyalty (Gummerus et al. 2012), and purchasing and WOM behavior (Algesheimer et al. 2005; Hur et al. 2011). In the social media context, Laroche, Habibi and Richard (2013) confirm that brand communities established on social media have a positive relationship with several customer-centric strategy outcomes such as attachment to the product, brand and the company in question. Customers’ commitment to and behavior within brand communities vary significantly among different community types, such as online and offline communities (Muniz & O’Guinn 2001), fan pages (Zaglia 2013) and small-group brand communities (Bagozzi & Dholakia 2006), as well as between different contexts and within the minds of customers (Jang et al. 2008). Zaglia (2013) defined a Facebook group established by a company around its brand as a true brand community, which should be distinguished from a mere fan page.

In the current research, brand community commitment and community promotion are examined as the antecedents of attitudinal loyalty, repurchase intention and WOM behavior (Algesheimer et al., 2005; Jang et al., 2008; Hur et al. 2011; de Matos & Rossi 2008). There is wide agreement

that positive WOM reflects brand loyalty (Brown et al. 2005; Casaló et al. 2007; Royo-Vela & Casamassima 2011). In this study, we define attitudinal loyalty, repurchase intention, and WOM as the outcome variables of brand community commitment and community promotion (cf. Algesheimer et al. 2005; Hur et al. 2011).

Previous research has examined specific aspects of online brand communities and behavior within communities, such as brand community characteristics (Muniz & O’Guinn 2001; Zaglia 2013), practices (Schau et al. 2009), and participation motives (Nambisan & Baron 2007). However, previous research has still not provided robust evidence regarding how Facebook brand communities relate to brand loyalty, particularly how brand-related manifestations in online channels, such as brand community commitment and brand community promotion behavior, are linked and jointly affect different aspects of brand loyalty. This linkage highlights the potential of online brand communities as a communication medium for building relationships with customers.

Research hypotheses

The conceptual framework of this study is presented in Figure 1. The model suggests that brand community commitment is directly associated with community promotion behavior, which is in turn hypothesized to be an antecedent to attitudinal loyalty, repurchase intention and WOM. In this study, we also examine the indirect and total effects of community promotion behavior on WOM, which may reveal interesting insights into the dynamics between these constructs.

“Insert Figure 1 about here”

Brand community commitment and community promotion behavior

Brand community commitment is positively related to brand loyalty (Jang et al. 2008), brand commitment, repurchase intention, participation in a company's marketing activities (Kim et al. 2008), and positive WOM communications (Carlson et al. 2008). These positive emotional and behavioral effects are generated by individuals' social interactions with other members of a community, such as giving and receiving brand-related information within a brand community, as well as sharing this information with others outside of the community (Casaló et al. 2007). Therefore, as social exchange is the essence of brand communities, higher levels of commitment to a community are likely to foster members' information-sharing behavior (Yeh & Choi 2011), encourage value creation for community members (see Hur et al. 2011; Oestreicher-Singer & Zalmanson 2013) and strengthen members' brand loyalty (Muniz and O'Guinn 2001).

Prior studies on the outcomes of commitment suggest that customers' brand community commitment leads to more intense social behavior within the community (Kang et al. 2007) and a stronger propensity to promote the community to others (Hur et al. 2011). Muniz and O'Guinn (2001) posited that social exchanges within brand communities provide opportunities for members to differentiate themselves from one another and to demonstrate their brand devotion and brand knowledge. This behavior is understood as strengthening customers' loyalty to a brand, which is the fundamental idea behind brand communities (e.g., Laroche et al. 2012).

Brand loyalty offers a useful way to examine the interplay between a customer's relationship found with a brand and with a brand community. Bagozzi and Dholakia (2006) determined that

customers' brand loyalty captures aspects of product-related cognitions, brand commitment, and identification with the brand image. The loyalty that customers feel toward a brand may be enhanced by encouraging them to interact within the brand community, thus enhancing identification with and commitment to the brand community and to the brand itself (Algesheimer et al. 2005; Casaló et al. 2007). However, previous studies have indicated that customers more often engage in non-interactive behaviors, such as "lurking" – observing without actively participating – which may be even more strongly related to brand loyalty than active participation (see Carlson et al. 2008; Gummerus et al. 2012; Shang et al. 2006).

Nambisan and Baron (2007) showed that consumers' active participation in brand communities is motivated by four types of potential benefits (learning, social, personal, and hedonic) that can be obtained from participation in community activities. Hur et al. (2011) showed that consumers' commitment to online brand communities positively affects their WOM behavior and brand loyalty. This positive association between brand community commitment and brand loyalty is also supported by other studies, such as Jang et al. (2008).

Prior research has suggested that existing members actively participate in online brand communities, whereas prospective members lurk and then grow into loyal community members through emotional support and increasing involvement in community actions (Hung & Li 2007). Members with a higher level of commitment to a community have an increased propensity to advocate for the community and to transmit information outside of the community. For example, Muniz and Schau (2005) suggested that strong commitment to a brand community may lead to advocacy behavior both within and outside of the community, which predicts brand loyalty

(Casaló et al. 2010; Koh & Kim 2004). Therefore, community promotion is considered to be a behavioral outcome of individuals' commitment to a brand community (Chu & Kim 2011; Kang et al. 2007). Prior studies support this point by showing that consumers' online brand community commitment is an antecedent of community promotion behavior and signals that they are positively associated with the brand community (Casaló et al. 2008). Thus, the degree of commitment an individual feels to a brand community and the level of motivation to participate in the community are related to the likelihood of promoting the brand community outside of the community. Against this backdrop, we posit that brand community commitment has a positive indirect relationship with brand loyalty, such that the effects of commitment on loyalty are engendered through community promotion behavior:

H1: Brand community commitment is positively associated with community promotion behavior (H1a) and brand loyalty (H1b).

Attitudinal loyalty, repurchase intention and WOM

A well-managed brand community fosters different types of brand loyalty, such as attitudinal loyalty (Chaudhuri & Holbrook 2001), repurchase intention (Algesheimer et al. 2005) and WOM (Hur et al. 2011). Thus, brand loyalty consists of both attitudinal and behavioral aspects (Oliver 1999). Attitudinal loyalty refers to a customer's overall attachment and commitment to a brand (Dick & Basu 1994), which predicts behavioral loyalty (Oliver 1999). Repurchase intention is defined as a measure of brand loyalty intention (Algesheimer et al. 2005) and purchase loyalty (Chaudhuri & Holbrook 2001). Our meaning here is that positive WOM communication is an outcome of attitudinal loyalty (de Matos & Rossi 2008; Oliver 1999) and repurchase intention

(Dick & Basu 1994; Mazzarol et al. 2007). Prior research has suggested that commitment to an online brand community is positively associated with brand loyalty (Casaló et al. 2007; Jang et al. 2008; Muniz & O'Guinn 2001). Casaló et al. (2008) posited that commitment precedes brand loyalty and leads to positive WOM communication. Hur et al. (2011) showed that community commitment positively affects repurchase intentions and WOM communication. Prior research has also indicated several other antecedents of WOM, including brand community commitment and satisfaction (Brown et al. 2005; Royo-Vela & Casamassima 2011) and writing intensity (Casaló et al. 2007). As the intention to spread information and community promotion are considered behavioral outcomes of brand community commitment (Muniz & Schau 2005), we postulate that these constructs predict and are positively associated with attitudinal loyalty, repurchase intention and WOM (Chu & Kim 2011; Hur et al. 2011; Koh & Kim 2004). Based on the aforementioned evidence, the following hypotheses are proposed:

H2a-c: Community promotion behavior is positively associated with attitudinal loyalty (H2a), repurchase intention (H2b) and WOM (H2c).

Control variables

Gender and age have been associated with the outcome variables in our study. For example, Ahrens et al. (2013) indicated that both gender and age may influence consumers' WOM behavior. Although research has not found that personal characteristics have a significant effect on WOM behavior, these characteristics do affect individuals' areas of interest and their choice of websites to visit (Brown et al. 2007). Thus, previous research is consistent regarding the effects of gender and age on consumers' social exchange behaviors, although there is limited empirical evidence from the online brand community perspective. Based on the discussion above,

we expect that individuals with similar characteristics will be more likely to share similar attitudes and interests, as reflected in their WOM behavior.

User activity in online brand communities has positive effects on brand value and attitudes (Jang et al. 2008) as well as loyalty to the associated brand (Shang et al. 2006). Research has also indicated that the consequences of participation activity may depend on the form of participation. For example, Shang et al. (2006) found that the frequency of visits to online brand communities positively affects brand loyalty, whereas participation in discussions within the community had no effect on brand loyalty. In addition, Royo-Vela and Casamassima (2011) found that participation frequency had mixed effects that varied from a slightly positive effect to no effect. On this basis, we believe that it is important to control for user activity in the model.

Research Method and Measurements

Data Collection and Sample

To test our hypotheses, an online questionnaire was developed to collect data from social media users. Data were collected in February 2013 and in March 2013 from users of two Finnish consumer products firms, a firm engaged in the home décor industry and a shoemaking firm, respectively. The home décor firm offers prestigious home décor and kitchen products, with net sales of approximately EUR 300 million and 1,500 employees. The Facebook community of the firm is built around the company's brand and has attracted more than 70,000 community members. Content for the community primarily comes from the company, with only a small amount of content generated by community members. The shoe firm offers shoes for running

and performing activities on slippery winter surfaces (many of their shoes are equipped with unique rubber compound and smart studs, which assist in adapting to slippery winter surfaces). The net sales of the shoe brand in Finland total approximately EUR 2 million. Its national Facebook community has more than 13,000 community members. Content for this community is equally generated by the company and by community members.

A link to the online survey was placed on both companies' Facebook pages. Participation was encouraged by a prize drawing for gift vouchers for each firm's products. The original survey items were first translated from English to Finnish. To ensure validity, back translation was used. The wording of some items was modified to adapt the items to the study context. In addition to the study constructs, the questionnaire consisted of items related to demographics and community activities.

In both studies, data were collected over a two-week period. In the décor study, the survey was opened 3,580 times, with 1,936 responses gathered, resulting in an effective response rate of 54.1%. In the shoe study, the effective response rate was 47.8% (opened 2,867 times, with 1,369 responses). To test for possible non-response bias, early respondents (N=300) were compared to late respondents (N=300) in terms of the construct items and background questions (Armstrong & Overton 1977). The results of the mean comparisons revealed no significant differences (at $p < 0.05$) between these two groups. Thus, non-response bias is not likely to affect our results.

Table 1 presents the sample group profile for both studies. For the home décor study, our sample is female dominated (93.6%), which is consistent with the general population of home décor

online communities. In terms of the respondents' ages, the sample is well balanced, as all age groups are present to some extent. However, perhaps as expected, the two oldest age groups account for only 9.2% of the total sample. Consistent with the age of online community members in general, most respondents (63.8%) were between 18 and 41 years of age. More than half of the respondents had obtained either a bachelor's (40.0%) or a master's degree (19.1%). A majority of respondents had been members of the Facebook community for a year or more (61.5%); only 8.1% had been members for less than a month. Approximately one-third (36.2%) visited the online community at least once a week, whereas more than half (63.8%) visited two to three times per month or less. A total of 41.6% reported sometimes "liking" the content of the community, whereas nearly one-third (29.8%) reported "liking" the content regularly (8.4%) or often (21.4%). Only 6.4% stated that they never clicked the *Like* button on the community page. Finally, only 1.6% reported writing comments regularly, and 2.4% reported that they did so often. A majority (81.1%) either never wrote comments (46.1%) or wrote them very rarely (35%). This finding is consistent with the 90-9-1¹ principle of content creation in collaborative websites such as online communities (McConnell & Huba 2006).

"Insert Table 1 about here"

The profile of the respondents in the shoe study is also female dominated (87.9%), which is consistent with the general population of the shoe brand's Facebook community. The average age of the respondents is slightly higher than in the home décor study: more than half of the respondents were between 36 and 53 years old (59.5%). In terms of education, the shoe study

¹ According to this principle, 90% of the participants of a community only view content, whereas 9% edit content, and 1% actively create content.

sample is quite similar to the home décor study sample. Given that this Facebook community has been active only since autumn 2013, all the respondents had been members of the Facebook community for fewer than six months. The frequency of visiting the shoe firm's community was slightly less than that of the home décor study. Approximately one-fifth (20.2%) visited the online community at least once a week, whereas the majority (80.8%) visited two to three times per month or less. There were no notable differences from the home décor study concerning how often the respondents "liked" the content. Only 4.8% stated that they never "liked" content, approximately one-fifth (19.7%) "liked" content rarely, nearly half (47.2%) "liked" content sometimes, and slightly over one-fourth (28.3%) "liked" content regularly (19.0%) or often (9.3%). Commenting occurred slightly more regularly in the shoe study, as 2% reported writing comments regularly, 2.7% commented often, and 17.5% commented occasionally. The majority never wrote comments (38.9%) or wrote them only very rarely (38.9%).

Measurement

The items used in this study can be found in the Appendix. For the model constructs, five-point Likert scales anchored by *strongly disagree* (1) and *strongly agree* (5) were used. All scales measuring the model constructs were operationalized with multi-item reflective scales. Brand community commitment was measured using items adapted from Hur et al. (2011). Community promotion behavior was measured using items adapted from Koh and Kim (2004). In measuring attitudinal loyalty to the brands, four items were adapted from Chaudhuri and Holbrook (2001) and Laroche et al. (2012). To measure repurchase intention, three items from Algesheimer et al.

(2005) and Chaudhuri and Holbrook (2001) were used. WOM was measured using items adapted from Hur et al. (2011).

Five control variables were used. Age was measured using an eight-point scale. User activity in the community was collected using single-item measures. The items were adapted from Gummerus et al. (2012). These three items focused on measuring user activity in terms of the frequency of visiting, the frequency of “liking” Facebook content, and the frequency of writing comments. In measuring the frequency of visiting, we asked the question “*How often do you visit the community?*”, and the answer was measured on a five-point scale, including the following items: “once a month or less” (1), “2–3 times per month” (2), “1–3 times per week” (3), “4–6 times per week” (4), and “Daily” (5). The frequency of “liking” was operationalized with the question “*How often do you ‘like’ the content of the community?*” The final question elicited responses regarding the frequency of writing comments by asking the following question: “*How often do you write comments?*” The scale for these two controls included “Never” (1), “Very seldom” (2), “Sometimes” (3), “Often” (4), and “Regularly” (5).

Results

Validation of measures

All measures were subjected to confirmatory factor analysis using partial least squares (PLS) and SmartPLS (Ringle et al. 2005). In general, the construct measures showed high internal reliability, as the composite reliabilities were all equal to or greater than 0.826, and Cronbach’s alphas were larger than 0.70. Discriminant validity was achieved using the Fornell–Larcker

criterion (1981), which is based on the premise that a latent variable should better explain the variance of its own indicators than the variance of other latent variables. Table 2 shows the cross-correlation matrix in which the square root of the AVE is compared with the correlations between the latent variable and all other latent constructs. In addition, Table 2 shows the mean scores for the constructs and their standard deviations.

“Please insert Table 2 about here”

Common method bias

The likelihood of common method bias tainting the results was mitigated by following the procedure recommended by Podsakoff et al. (2003). The items were mixed in the questionnaire, the level of item ambiguity was reduced, and the respondents' identities were confidential. Two statistical analyses were performed to test for possible common method bias in the final data. First, the one-factor test from Harman (1967) showed the presence of measurement model factors rather than a general factor. The largest factor accounted for 24.4% (décor) and 23.5% (shoes) of the total variance of the factors. Second, a model with a common method factor was run in SmartPLS (see Liang et al. 2007). The results showed the average method-based variance to be low (-0.001 for décor and -0.003 for shoes) compared with the average variance explained by the indicators (0.838 for decoration and 0.833 for shoes). These tests provide evidence that common method bias is not a concern in our dataset.

Analysis and results

To test our hypotheses, we first examined the direct effects followed by an analysis of the mediation test, including an assessment of the indirect and total effects. In assessing the direct paths, a path-weighting scheme with a maximum iteration set to 300 and an abort criterion set to 1.0E-5 was employed. The significance of the paths was assessed using bootstrapping with 5,000 re-samples (Hair et al. 2014, p.132). The results of the PLS estimation for the direct effects are presented in Table 3.

“Insert Table 3 about here”

Overall, both models explained more than 40% of the R^2 of repurchase intention and WOM. The Q^2 values were large (> 0.35) in three out of four cases, as the Q^2 value in the shoe study for repurchase intentions was medium-large ($0.15 < Q^2 < 0.35$). This result may be explained by the product type.

As shown in Table 3, brand community commitment has strong positive associations with community promotion behavior (décor/shoes: $\beta = 0.633 / 0.730$, $p < 0.01$), which provides support for H1a. With respect to H2a-c, all the relationships are supported in the décor data. In the shoe study, only the positive relationship between brand community promotion and attitudinal loyalty (H2a) is supported, whereas community promotion was not found to be related to repurchase intention (H2b) or WOM (H2c). Furthermore, the models confirm the positive paths between attitudinal loyalty and repurchase intention, attitudinal loyalty and WOM and the path between repurchase intention and WOM. The path coefficients between the two groups were significantly different in strength in many cases (see Table 3). Of the control variables, gender had a significant association in both samples with repurchase intention and in the décor

sample with WOM. This finding implies that women have slightly stronger repurchase intention in both studies and are slightly more willing to provide positive WOM about the brand in the décor study. Age was found to be negatively associated with repurchase intention in the décor sample, indicating that younger customers have stronger repurchase intention. The frequency of visiting had no effect on repurchase intention but had a positive relationship with WOM in the shoe study. The frequency of liking was not associated with WOM but had a positive effect on repurchase intention in the shoe study. Finally, the frequency of commenting on posts had no effect on the outcome variables.

Total effects

The results of the total effects (Table 4) confirm H1b by showing that brand community commitment has a significant positive association with brand loyalty in both studies. In the décor study, its effect is the strongest on WOM. In the shoe study, the total effect is the strongest on attitudinal loyalty and the weakest on WOM. In both samples, community promotion behavior has a positive total effect on repurchase intention and on WOM, and its effect is larger on repurchase intention in the shoe study and on WOM in the décor study. Most of the total effects differed significantly ($p < 0.05$) between the two groups (see Table 4). Finally, the total effect of attitudinal loyalty on WOM was strong and significant in both studies.

“Insert Table 4 about here”

Indirect effects and mediation

Although not hypothesized, we further examined how the effects of brand community promotion behavior on WOM are mediated by attitudinal loyalty and repurchase intention. To assess these

relationships, indirect and mediating effects were assessed by calculating the significance of the indirect effects by bootstrapping the sampling distribution (5,000 bootstrap samples, no sign changes) and calculating the Variance Accounted For (VAF) value. Bootstrapping is considered a far more robust test for assessing mediation than the Baron and Kenny (1986) approach or the Sobel (1982) test (Hair et al. 2014, p. 223; Preacher & Hayes 2008). Table 5 presents the results of this analysis.

“Insert Table 5 about here”

The results show that the effects of brand community behavior on WOM are partially (VAF = 0.390) mediated through attitudinal loyalty and repurchase intention in the décor study. In this equation, attitudinal loyalty is a stronger mediator of the effects of community promotion on WOM. In the shoe study, the total indirect effect was larger than the total effect, which suggests inconsistent mediation (MacKinnon et al. 2007). In such cases, the VAF value cannot be assessed. An explanation for this result is that the positive indirect effect (0.254***) is cancelled out by the negative direct effect ($\beta = -0.012$ ns). With respect to the specific indirect effects, we find that the effects of community promotion behavior on WOM are fully mediated by attitudinal loyalty. Consequently, we can conclude that in the shoe study, the effect of brand community promotion behavior on WOM is inconsistently mediated by attitudinal loyalty and repurchase intentions. In summary, the positive relationship between brand community promotion behavior and WOM is only indirect (via attitudinal loyalty) in the shoe study.

General Discussion

This work is among the first studies to investigate the manner in which online brand community commitment and community promotion behavior within a Facebook brand community affect consumers' attitudinal loyalty to a brand, repurchase intention and positive WOM behavior with respect to the brand. Our findings make an important contribution to the discussion regarding online consumer brand communities from the perspective of brand community dynamics and brand loyalty, and our work has several implications for online brand community management.

Summary of Findings and Theoretical Implications

Online brand communities are considered effective tools for customer relationship management, because they foster interactivity between a company and its customers and thus lead to more positive brand perceptions, stronger purchase intentions and WOM activity (Reichelt et al. 2014).

Although the prior literature has tested the effect of several antecedents of WOM in the brand community context, no prior study has examined the direct and indirect effects of brand community commitment and community promotion behavior on the specific aspects of brand loyalty – namely attitudinal loyalty, repurchase intention and WOM behavior. We extend the prior literature by offering a theoretically grounded conceptual model and testing it empirically with two large samples of online community members. Our key empirical findings provide insight into the relationship between Facebook brand communities and purchasing behavior in three aspects: a) brand community commitment has a significant direct effect on community promotion behavior and a significant indirect effect on all three outcome constructs, i.e., attitudinal loyalty, repurchase intention and WOM; b) community promotion behavior affects attitudinal loyalty, repurchase intention and WOM in the décor study, whereas in the shoe study,

this behavior affected only attitudinal loyalty; and c) attitudinal loyalty to the brands exhibited strong associations with both repurchase intention and WOM.

Our study contributes to the literature by presenting the specific influence of Facebook brand community membership mechanisms on individuals' loyalty behaviors. We show that brand community commitment has strong associations with community promotion behavior and brand loyalty. These findings are consistent with our expectations and prior research, which has identified a positive relationship between brand community commitment and community promotion behavior (Chu & Kim 2011; Kang et al. 2007) as well as between community commitment and attitudinal loyalty, repurchase intention (Casaló et al. 2007; Jang et al. 2008; Muniz & O'Guinn 2001) and WOM (Hur et al. 2011). This study adds to current knowledge regarding brand loyalty, particularly WOM, by showing that brand community members' community promotion behavior is a strong predictor of three aspects of brand loyalty – namely attitudinal loyalty, repurchase intentions and WOM behavior. This extends the literature on the brand community commitment and brand loyalty relationship by Casaló et al. (2008) and Hur et al. (2011) and on the brand community commitment and community promotion connection by Muniz and Schau (2005). The findings revealed that although community promotion behavior is closely linked to all types of brand loyalty in terms of total effects, its effects on repurchase intention and WOM are not always direct. These findings partly support the view that brand community membership predicts consumers' intentions and behaviors both within and outside of such communities (Algesheimer et al. 2005).

Finally, the results concerning the impact of the control variables on the conceptual model also provide new insights to our knowledge. Controlling for user activity indicated that a positive effect on the outcome variables exists but differs between product categories as well as activity types. This was manifested in our study by the differing results between the two samples - the décor community and shoes community. One possible reason for the differences is that the shoe community is seasonal because it concentrates on the winter season, and our study was conducted during the busy season. During this time, the members of the community were more active compared with the décor community, which is more steadily active throughout the entire year. On the differences between the types of community behavior we found that frequency of visiting had no effect on repurchase intention but had a positive relationship with WOM in the shoe study. The frequency of liking content was not associated with WOM but had a positive effect on repurchase intentions in the shoe study. Finally, the frequency of commenting had no effect on the outcome variables. These results add to the research of Jang et al. (2008), Royo-Vela and Casamassima (2011) and Shang et al. (2006) by presenting a more detailed picture of how different types of behaviors in online brand communities drives the community members' brand loyalty. Of the other control variables, the prior studies have not shown direct relationships between individuals' personal characteristics and WOM behavior in the online brand community context. However, the previous research indicates that consumers with similar gender and age profiles are likely to share similar attitudes and areas of interest (Brown et al. 2007) and may also be similar in their WOM behavior (Ahrens et al. 2013). Our findings contribute to this literature by, first, showing that gender is significantly associated with repurchase intention in both samples and with WOM in the décor sample. Women had slightly stronger repurchase intention in both studies and were slightly more willing to provide positive WOM about the brand in the

décor study. Second, age was found to have a negative association with repurchase intention in the décor sample, which indicates that younger customers have stronger repurchase intentions.

Managerial Implications

The findings of the current research offer three managerial implications for those who build and maintain online brand communities, particularly on Facebook. Both samples showed that Facebook attracts older generations. Thus, our managerial advice is not restricted in terms of age, as the tested theories appear to be valid in the context of both younger and older segments in online brand communities.

First, our results confirm a positive relationship between Facebook brand community membership and brand loyalty. However, the effect strength of brand community commitment on brand loyalty differed between the two product types around which the brand communities were built. Therefore, we advise managers to study on the company's brand community and how the members' community participation is linked to their brand loyalty. This provides the company the means of assessing the value of the brand community and the size of investments on the community that is justifiable based on the community's expected value. This study also shows that attitudinal loyalty is the main driver of positive WOM, and it outweighs the importance of Facebook brand community commitment or community promotion behavior. This leads to another practical contribution. The companies should design the brand communities to consist of features and content that effectively influences the members' emotions toward the brand. This would the most effectively improve the brand communities' ability to drive the members' repurchase intentions and brand related WOM behavior outside the community. Thus,

formulating an online brand community appears to be a viable way to become closer to consumers and to foster stronger brand loyalty.

Third, we advise managers to create strategies that foster participation and interaction in the brand community. For example, encouraging community members to spread positive news about their brand and products online will influence the awareness and pique the interest of consumers. Thus, positive brand-related discussions are also likely to affect buying behavior over time (Casaló et al. 2007; Hur et al. 2011). Prior studies also stated that loyalty and commitment to a brand might be enhanced by encouraging community members to interact with one another because such interaction reinforces identification with and a sense of belonging to a community (Bagozzi & Dholakia 2006). This objective typically requires companies to generate discussions around their brands and products by creating content that is interesting and relevant to the audience and by interacting with the audience (e.g., by asking questions, collecting ideas and gathering feedback, having people vote on products, and answering customer queries). An online brand community may be a valuable asset for a company by providing a focus group to guide new product development, the design of customer surveys, and customer service and marketing communications. In closed communities such as Facebook, companies also acquire detailed information about who their community members are, where they live, how old they are, what other companies and products they “like”, and other groups or communities to which they belong. Content that is designed to focus on relevant ideas and interaction with customers is likely to be more influential than content that is designed only to boost the business of the community holder. However, in the Facebook brand community, such a focus might be challenging (Gummerus et al. 2012).

Limitations and Future Research

We have identified three main limitations of the current study. First, the empirical data informing the study were obtained from the members of only two Facebook brand communities, and their participation was voluntary; thus, both samples were convenience samples, which limit the generalizability of the results. Although non-response bias was not observed, various age groups and educational backgrounds were well represented in the sample, which mirrors the population of community members in terms of gender (female-dominated communities). It cannot be presumed that the views obtained from these female-dominated communities represent the views of members of all other online brand communities. Future research should therefore be conducted in other communities, possibly outside of Facebook, and in different types of communities. In addition, it might be interesting to undertake a comparative study of members of a Facebook brand community and another type of online brand community. Such a study might illuminate the real motives for belonging to a specific brand community. The present data do not consider a possible distinction between the perceptions and behavior of community members and non-members. Thus, future research might compare the members of a certain community with non-members, particularly in terms of how members differ from non-members in their brand community commitment and brand loyalty. Such a study might shed new light onto the value of fostering online brand communities for organizations. Furthermore, this study concentrated only on the outcomes of community commitment and thus did not explain how social behavior affects members' commitment to a community and how this behavior creates value for members and for companies (see Schau et al. 2009). Further studies should be conducted to examine how

individuals' brand community behavior and perceptions of the value of a community affect their brand loyalty through brand community commitment. In the future, it may also be worthwhile to investigate online brand communities operating in different languages or managed from different countries by examining the effects of geographical areas. Another possible source of bias in the responses may occur as a result of the devices that individuals use to access an online brand community, which was not controlled for in the present study. Therefore, future research could examine our constructs and the proposed relationships by considering the device used to access the community. As around 85 % of Facebook page downloads are currently performed via a smartphone or tablet PC (Facebook, 2015), a study examining the effect of the chosen user device might provide additional valuable insights to complement our research framework.

Second, given the short history of Facebook and its brand communities, membership in these types of communities may not always be a sign of true interest in a brand or of loyalty. As our research did not inquire about the motives for participating in the community in great detail, one promising future research area would be to examine what motivates Facebook brand community membership. This study could be either experimental or qualitative and might be conducted by interviewing the members of an online brand community. Another suitable method would be netnography, which is a branch of ethnography that focuses on analyzing online behaviors. In addition, the use of these methods might be valuable in conducting an in-depth investigation of why users spread WOM offline and/or online or why users promote a particular community.

Finally, as with any single-survey study, the possible effect of common method variance cannot be completely eliminated without collecting data from various sources or using a longitudinal

study design. During the survey studies, special care was taken to minimize common method bias, and the tests conducted indicated that this issue should not jeopardize the validity of our study. In addition, studies that test relationships between constructs are based on theory rather than mathematical formulae, and thus, claims of causality must be interpreted with caution. All the relationships established by the current research were based on earlier research, and causality is therefore based on the theories relating to online brand communities. However, to fully validate the causality of the relationships, an experimental design would be necessary.

References

- Adjei, M., Noble, S., & Noble, C. (2010). The influence of C2C communications in online brand communities on customer purchase behavior. *Journal of the Academic Marketing Science*, 38(5), 634–653.
- Ahrens, J., Coyle, J., & Strahilevitz, M. (2013). Electronic word of mouth: The effects of incentives on e-referrals by senders and receivers. *European Journal of Marketing*, 47(7), 1034–1051.
- Algesheimer, R., Dholakia, U., & Herrmann, A. (2005). The social influence of brand community: Evidence from European car clubs. *Journal of Marketing*, 69(3), 19–34.
- Armstrong, J. S., & Overton, T. S. (1977). Estimating nonresponse bias in mail surveys. *Journal of Marketing Research*, 14(August), 396–402.
- Bagozzi, R., & Dholakia, U. (2006). Antecedents and purchase consequences of customer participation in small group brand communities. *International Journal of Research in Marketing*, 23(1), 45–61.
- Baron, R. M., & Kenny, D. A. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic and statistical considerations. *Journal of Personality and Social Psychology*, 51(6), 1173–1182.
- Brown, J., Broderick, A. J., & Lee, N. (2007). Word of mouth communication within online communities: conceptualizing the online social network. *Journal of Interactive Marketing*, 21(3), 2–20.
- Brown, T., Barry, T., Dacin, P., & Gunst, R. (2005). Spreading the word: Investigating antecedents of consumers' positive word-of-mouth intentions and behaviors in a retailing context. *Journal of the Academy of Marketing Science*, 33(2), 123–138.
- Carlson, B., Suter, T., & Brown, T. (2008). Social versus psychological brand community: The role of psychological sense of brand community. *Journal of Business Research*, 61(4), 284–291.
- Casaló, L., Flavián, C., & Guinalú, M. (2007). The impact of participation in virtual brand communities on consumer trust and loyalty: The case of free software. *Online Information Review*, 31(6), 775–792.
- Casaló, L., Flavián, C., & Guinalú, M. (2008). Promoting consumer's participation in virtual brand communities: A new paradigm in branding strategy. *Journal of Marketing Communications*, 14(1), 19–36.

- Casaló, L., Flavián, C., & Guinalú, M. (2010). Relationship quality, community promotion and brand loyalty in virtual communities: Evidence from free software communities. *International Journal of Information Management*, 30(4), 357-367.
- Chaudhuri, A., & Holbrook, M. (2001). The chain of effects from brand trust and brand affect to brand performance: the role of brand loyalty. *Journal of Marketing*, 65(2), 81-93.
- Cheung, C., & Lee, M. (2012). What drives consumers to spread electronic word of mouth in online consumer-opinion platforms. *Decision Support Systems*, 53(1), 218-225.
- Chu, S., & Kim, Y. (2011). Determinants of consumer engagement in electronic word-of-mouth (eWOM) in social networking sites. *International Journal of Advertising*, 30(1), 47-75.
- De Matos, C. A., & Rossi, C. A. (2008). Word-of-mouth communications in marketing: a meta-analytic review of the antecedents and moderators. *Journal of the Academy of Marketing Science*, 36(4), 578-596.
- Dick, P., & Basu, K. (1994). Customer loyalty: toward an integrated conceptual framework. *Journal of the Academy of Marketing Science*, 22(2), 99-113.
- European Communication Monitor (2012). *Challenges and competencies for strategic communication. Results from empirical survey in 42 countries*. Retrieved August 15, 2013, from <http://www.zerfass.de/ecm/ECM2012-Results-ChartVersion.pdf>.
- Facebook (2015). *Company info*. Retrieved February 10, 2015, from <http://newsroom.fb.com/company-info/>.
- Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research*, 18(1), 39-50.
- Gamboa, A. M., & Gonçalves, H. M. (2014). Customer loyalty through social networks: Lessons from Zara on Facebook. *Business Horizons*, 57, 709-717.
- Gummerus, J., Liljander, V., Weman, E., & Pihlström, M. (2012). Customer engagement in a Facebook brand community. *Management Research Review*, 35(9), 857-877.
- Habibi, M. R., Laroche, M., & Richard, M.-O. (2014). Brand communities based in social media: How unique are they? Evidence from two exemplary brand communities. *International Journal of Information Management*, 34(2), 123-132.
- Hair, J. F. Jr., Hult, G. T. M., Ringle, C. M., & Sarstedt, M. (2014). *A primer on partial least squares structural equation modeling (PLS-SEM)*. Los Angeles: Sage.
- Harman, H. H. (1967). *Modern factor analysis*. Chicago: University of Chicago Press.

- Hung, K., & Li, S. (2007). The influence of eWOM on virtual consumer communities: Social capital, consumer learning, and behavioral outcomes. *Journal of Advertising Research*, 47(4), 485–495.
- Hur, W., Ahn, K., & Kim, M. (2011). Building brand loyalty through managing brand community commitment. *Management Decision*, 49(7), 1194–1213.
- Jang, H., Olfman, L., Ko, I., Koh, J., & Kim, K. (2008). The Influence of On-Line Brand Community Characteristics on Community Commitment and Brand Loyalty. *International Journal of Electronic Commerce*, 12(3), 57-80.
- Kang, I., Lee, K., Lee, S., & Choi, J. (2007). Investigation of online community voluntary behavior using cognitive map. *Computers in Human Behavior*, 23(1), 111-126.
- Kim, A., Choi, J., Qualls, W., & Han, K. (2008). It takes a marketplace community to raise brand commitment: the role of online communities. *Journal of Marketing Management*, 24(3/4), 409-431.
- Koh, J., & Kim, Y. (2004). Knowledge sharing in virtual communities: an ebusiness perspective. *Expert Systems with Applications*, 26(2), 155–166.
- Laroche, M., Habibi, M. R., & Richard, M.-O. (2013). To be or not to be in social media: How brand loyalty is affected by social media? *International Journal of Information Management*, 33(1), 76–82.
- Laroche, M., Habibi, M., Richard, M.-O., & Sankaranarayanan, R. (2012). The effects of social media based brand communities on brand community markers, value creation practices, brand trust and brand loyalty. *Computers in Human Behavior*, 28(5), 1755–1767.
- Liang, H., Saraf, N., Hu, Q., & Xue, Y. (2007). Assimilation of enterprise systems: The effect of institutional pressures and the mediating role of top management. *MIS Quarterly*, 31(1), 59–87.
- MacKinnon, D.P, Fairchild, A.J., & Fritz, M.S. (2007). Mediation analysis. *Annual Review of Psychology*, 58, 593–614.
- Marzocchi, G., Morandin, G., & Bergami, M. (2013). Brand communities: loyal to the community or the brand? *European Journal of Marketing*, 47(1/2), 93–114.
- Mazzarol, T., Sweeney, J., & Soutar, G. (2007). Conceptualizing word-of-mouth activity, triggers and conditions: an exploratory study. *European Journal of Marketing*, 41(11), 1475–1494.
- McConnell, B., & Huba, J. (2006). *The 1% rule: Charting citizen participation*. Retrieved October 3, 2013, http://www.churchofthecustomer.com/blog/2006/05/charting_wiki_p.html

- Muniz, A.M., & O'Guinn, T. (2001). Brand community. *Journal of Consumer Research*, 27(4), 412–432.
- Muniz, A., & Schau, H. (2005). Religiosity in the abandoned Apple Newton brand community. *Journal of Consumer Research*, 31(4), 737–47.
- Nambisan, S., & Baron, R. (2007). Interactions in virtual customer environments: implications for product support and customer relationship management. *Journal of Interactive Marketing*, 21(2), 42–62.
- Oestreicher-Singer, G., & Zalmanson, L. (2013). Content or community? A digital business strategy for content providers in the social age. *MIS Quarterly*, 37(2), 591-616.
- Oliver, R. L. (1999). Whence customer loyalty. *Journal of Marketing*, 63, 33–44.
- Podsakoff, P. M., MacKenzie, S. B., Lee, J. Y., & Podsakoff, N. P. (2003). Common method biases in behavioral research: a critical review of the literature and recommended remedies. *Journal of Applied Psychology*, 88(5), 879–903.
- Preacher, K. J., & Hayes, A. F. (2008). Asymptotic and resampling strategies for assessing and comparing indirect effects in multiple mediator models. *Behavior Research Methods*, 40(3), 879–891.
- Reichelt, J., Sievert, J., & Jacob, F. (2014). How credibility affects eWOM reading: the influences of expertise, trustworthiness, and similarity on utilitarian social functions. *Journal of Marketing Communications*, 20(1-2), 65–81.
- Reichheld, F. (2003). The one number you need to grow. *Harvard Business Review*, 81(December), 46-54.
- Ringle, C., Wende, S., & Will, A. (2005). *SmartPLS: release 2.0 (beta)*. Retrieved June 3, 2012, from <http://www.smartpls.de>.
- Royo-Vela, M., & Casamassima, P. (2011). The influence of belonging to virtual brand communities on consumers' affective commitment, satisfaction and word-of-mouth advertising: The ZARA case. *Online Information Review*, 35(4), 517–542.
- Ruiz-Mafe, C., Martí-Parreño, J., & Sanz-Blas, S. (2014). Key drivers of consumer loyalty to Facebook fan pages. *Online Information Review*, 38 (3), 362–380.
- Schau, H., Muñoz, A., & Arnould, E. (2009). How brand community practices create value. *Journal of Marketing*, 73(5), 30–51.
- Shang, R., Chen, Y., & Liao, H. (2006). The value of participation in virtual consumer communities on brand loyalty. *Internet Research*, 16(4), 398–418.

- Sirdeshmukh, D., Singh, J., & Sabol, B. (2002). Consumer trust, value, and loyalty in relational exchanges. *Journal of Marketing*, 66(1), 15–37.
- Sobel, M. E. (1982). Asymptotic confidence intervals for indirect effects in structural equation models. *Sociological Methodology*, 13, 290–312.
- Statistics Finland (2013). *Yhteisöpalvelut istuvat suomalaiseen sosiaalisuuteen*. Retrieved October 2, 2013, from http://www.stat.fi/artikkelit/2013/art_2013-06-03_001.html.
- Yeh, Y., & Choi, S. (2011). MINI-lovers, maxi-mouths: An investigation of antecedents to eWOM intention among brand community members. *Journal of Marketing Communications*, 17(3), 145–162.
- Zaglia, M. (2013). Brand Communities Embedded in Social Networks. *Journal of Business Research*, 66(2), 216-223.

List of Figures

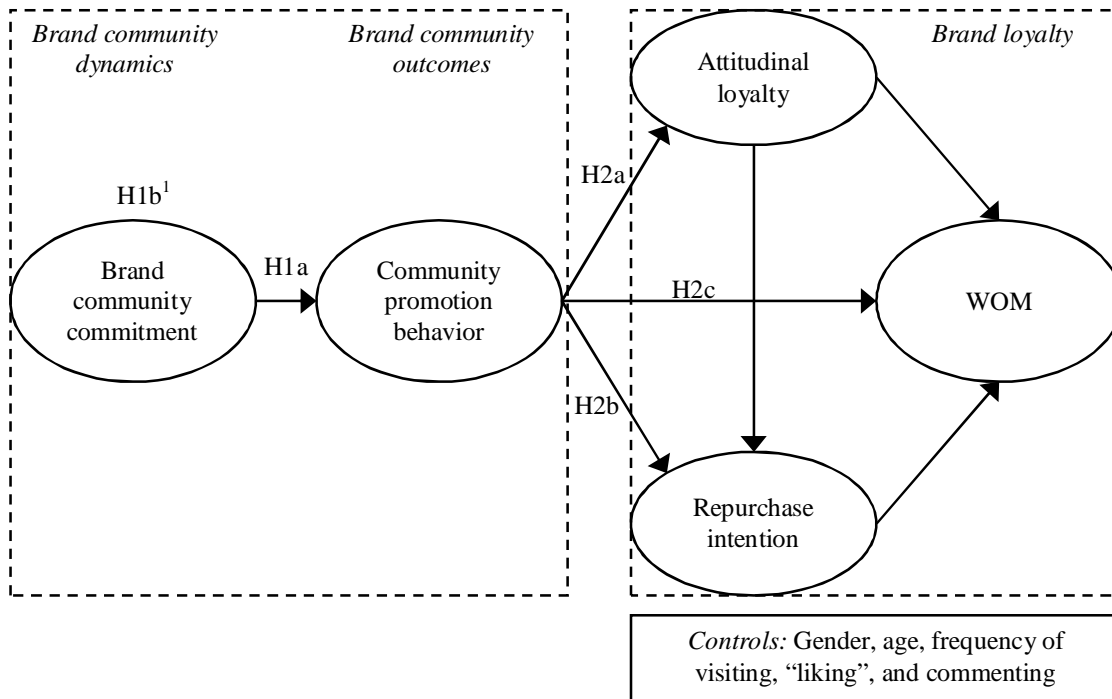


Figure 1 Conceptual model and hypotheses

Notes: ¹ Indicates the total effect of brand community engagement on WOM

List of Tables

Table 1 Profile of the Respondents

	Décor		Shoes	
	N	%	N	%
Gender				
Female	1812	93.6	1203	87.9
Male	124	6.4	166	12.1
Total	1936	100	1369	100
Age				
18–23	229	11.8	28	2.1
24–29	345	17.8	81	5.9
30–35	352	18.2	171	12.5
36–41	309	16.0	271	19.8
42–47	287	14.8	311	22.7
48–53	236	12.2	233	17.0
54–59	122	6.3	138	10.1
60 or older	56	2.9	136	9.9
Total	1936	100	1369	100
Education				
Comprehensive school	68	3.5	86	6.3
Lower secondary school	400	20.7	400	29.2
Upper secondary school	324	16.7	228	16.7
Bachelor's degree	775	40.0	477	34.8
Master's degree or higher	369	19.1	178	13.0
Total	1936	100	1369	100
Frequency of visiting				
Once a month or less often	630	32.5	807	58.9
2-3 times a month	606	31.3	300	21.9
1-3 times a week	366	18.9	101	7.4
4-6 times a week	139	7.2	35	2.6
Daily	195	10.1	126	9.2
Total	1936	100	1369	100
Frequency of "Liking"				
Never	123	6.4	66	4.8
Very seldom	430	22.2	270	19.7
Sometimes	806	41.6	646	47.2
Often	415	21.4	260	19.0
Regularly	162	8.4	127	9.3
Total	1936	100	1369	100
Frequency of commenting				
Never	892	46.1	532	38.9
Very seldom	677	35.0	533	38.9
Sometimes	289	14.9	240	17.5
Often	47	2.4	37	2.7
Regularly	31	1.6	27	2.0
Total	892	46.1	532	38.9

Table 2 Average Variance Extracted (AVE), Reliabilities, Construct Correlations, Square Root of AVE (on the diagonal), Means and Standard Deviations

<i>Décor</i>	AVE	CR ^a	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
BCC ^b (1)	0.545	0.826	0.738									
CPB ^c (2)	0.854	0.946	0.634	0.924								
ATTL ^d (3)	0.685	0.897	0.315	0.242	0.828							
RI ^e (4)	0.688	0.869	0.303	0.224	0.716	0.829						
WOM ^f (5)	0.859	0.717 ¹	0.391	0.396	0.623	0.622	0.927					
FV ^g (6)	n/a ^j	n/a	0.020	-0.012	-0.016	-0.006	0.010	n/a				
FL ^h (7)	n/a	n/a	-0.017	-0.029	0.015	0.017	0.021	0.455	n/a			
FC ⁱ (8)	n/a	n/a	-0.018	-0.021	-0.020	-0.017	-0.014	0.556	0.566	n/a		
Gender (9)	n/a	n/a	0.053	0.036	0.024	-0.018	-0.019	0.029	0.012	-0.029	n/a	
Age (10)	n/a	n/a	0.070	0.190	-0.112	-0.110	-0.027	-0.015	-0.031	0.001	-0.032	n/a
Mean	-	-	2.63	1.81	3.59	3.93	3.60	2.31	3.03	1.79	n/a	n/a
s.d.	-	-	1.06	0.98	1.02	0.92	1.06	1.27	1.01	0.90	n/a	n/a

<i>Shoes</i>	AVE	CR ^a	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
BCC ^b (1)	0.626	0.867	0.791									
CPB ^c (2)	0.794	0.921	0.730	0.891								
ATTL ^d (3)	0.646	0.879	0.440	0.407	0.804							
RI ^e (4)	0.639	0.841	0.310	0.264	0.647	0.799						
WOM ^f (5)	0.848	0.696 ¹	0.236	0.232	0.608	0.675	0.921					
FV ^g (6)	n/a ^j	n/a	0.397	0.371	0.120	0.037	0.005	n/a				
FL ^h (7)	n/a	n/a	0.483	0.424	0.233	0.173	0.153	0.447	n/a			
FC ⁱ (8)	n/a	n/a	0.506	0.444	0.205	0.096	0.095	0.580	0.531	n/a		
Gender (9)	n/a	n/a	0.069	0.040	-0.044	-0.133	-0.110	0.070	0.029	0.041	n/a	
Age (10)	n/a	n/a	0.077	0.190	0.040	0.023	0.032	0.130	0.137	0.146	-0.022	n/a
Mean	-	-	2.59	2.04	2.97	3.95	4.13	1.81	3.08	1.90	n/a	n/a
s.d.	-	-	1.11	1.08	1.22	0.99	1.09	1.25	0.97	0.92	n/a	n/a

Notes:

^a CR = Composite reliability; ^b BCC – Brand community commitment; ^c CPB – Community promotion behavior; ^d ATTL – Attitudinal loyalty to the brand; ^e RI – Repurchase intention; ^f WOM = Word of mouth; ^g FV – Frequency of visiting; ^h FL – Frequency of “liking”; ⁱ FC – Frequency of commenting; ^j Not applicable. Construct measured through a single indicator; composite reliability and AVE cannot be computed, ^k correlation coefficient (construct calculated with two indicators); composite reliability cannot be computed.

Table 3 The Direct Effect Model

	β		f^2		q^2	
	Décor	Shoes	Décor	Shoes	Décor	Shoes
^a H1: BCC → CPB	0.633***	0.730***	n/a	n/a	n/a	n/a
^a H2a: CPB → ATTL	0.242***	0.407***	n/a	n/a	n/a	n/a
^a H2b: CPB → RI	0.066***	0.019 (ns)	0.006	-0.004	0.000	-0.007
^a H2c: CPB → WOM	0.245***	-0.012 (ns)	0.108	-0.004	0.081	-0.002
^a ATTL → RI	0.695***	0.635***	0.911	0.583	0.465	0.283
ATTL → WOM	0.313***	0.301***	0.104	0.094	0.078	0.070
^a RI → WOM	0.332***	0.475***	0.104	0.253	0.080	0.186
^a Gender → RI	-0.039**	-0.103***	0.002	0.018	0.002	0.007
Gender → WOM	-0.031**	-0.030 (ns)	0.002	0.002	0.004	0.002
Age → RI	-0.046***	-0.005 (ns)	0.004	0.000	0.000	-0.004
Age → WOM	-0.001 (ns)	0.013 (ns)	0.000	0.000	0.002	0.002
FV → RI	0.009 (ns)	-0.038 (ns)	0.000	0.000	0.000	0.000
FV → WOM	0.024 (ns)	0.066***	0.000	0.006	0.002	0.004
FL → RI	0.012 (ns)	0.064**	0.000	0.004	0.000	0.001
FL → WOM	0.019 (ns)	0.025 (ns)	0.000	0.000	0.002	0.002
FC → RI	-0.014 (ns)	-0.050 (ns)	0.000	0.002	0.000	0.000
FC → WOM	-0.021 (ns)	0.017 (ns)	0.000	0.000	0.002	0.002
	R^2		Q^2			
Repurchase intention	0.518	0.434	0.352	0.273		
WOM	0.509	0.510	0.435	0.430		

Notes:

*** $p < 0.01$; ** $p < 0.05$; ns - not significant; n/a - not applicable

^a The path coefficients between the two groups are significantly different ($p < 0.01$)

Table 4 Total Effects

	Attitudinal loyalty		Repurchase intention		WOM	
	Décor	Shoes	Décor	Shoes	Décor	Shoes
H1b: BCC ^a	0.153***	0.297*** ^{c1}	0.148***	0.203*** ^{c2}	0.254***	0.178*** ^{c1}
Community promotion behavior	^b	^b	0.234***	0.278***	0.402***	0.243*** ^{c1}
Attitudinal loyalty	-	-	^b	^b	0.558***	0.603***

Notes:

*** $p < 0.01$; ** $p < 0.05$; ns - not significant

^a BCC – Brand community commitment

^b Same as the direct effect

^c The total effects between the two groups are significantly different ^{c1} ($p < 0.01$); ^{c2} ($p < 0.05$)

Table 5 Mediation Analysis

<i>Décor</i>	Indirect effects	Total effects	VAF	Mediation
^a CPB ^c → WOM ^e (through ATTLOY and RI)	0.157***	0.402***	0.390	Partial
^b CPB → ATTLOY ^f → WOM	0.079***	0.324***	0.244	Partial
^b CPB → RI ^g → WOM	0.022***	0.267***	0.082	Almost no
^b CPB → ATTLOY → RI → WOM	0.056***	0.301***	0.186	Almost no
<i>Shoes</i>				
^a CPB ^c → WOM ^e (through ATTLOY and RI)	0.254***	0.243***	n/a ⁱ	n/a ⁱ
^b CPB → ATTLOY ^f → WOM	0.121***	0.135***	0.911	Full
^b CPB → RI ^g → WOM	0.009 (ns)	-0.003 (ns)	n/a ^{h,i}	No
^b CPB → ATTLOY → RI → WOM	0.123***	0.111***	n/a ⁱ	n/a ⁱ

Notes:

*** $p < 0.01$, ** $p < 0.05$, ns - not significant

^a The *total indirect effect* was calculated (see Preacher and Hayes 2008 for the procedure).

^b Specific indirect effects

^c BCC – Brand community commitment

^d CPB – Community promotion behavior

^e WOM – Word of mouth

^f ATTLOY – Attitudinal loyalty

^g RI – Repurchase intention

^h n/a – not applicable. Mediation does not exist because the indirect effect is not significant.

ⁱ n/a – not applicable. The indirect effects are larger than the total effect (thus, the VAF values exceed 1).

Appendix

Table 6 Measurement Scales

Constructs and items	Factor loadings	
	Décor	Shoes
Brand community commitment ^a		
In general, I'm very motivated to participate actively in the virtual community activities.	0.760	0.792
I feel a sense of belonging in this brand community.	0.775	0.805
I will exchange information and opinions with the members of this brand community.	0.787	0.804
I will collect information through this brand community.	0.630	0.761
Community promotion behavior ^b		
I invite my close acquaintances to join our Facebook community.	0.894	0.889
I often talk to people about the benefits of this Facebook community.	0.939	0.876
I often introduce my peers or friends to this Facebook community.	0.939	0.908
Attitudinal loyalty to the brand ^c		
I consider myself to be loyal to brand X.	0.897	0.861
I am willing to pay more for (X) products.	0.798	0.783
I am committed to this brand.	0.839	0.854
I would be willing to pay a higher price for this brand than for other brands.	0.772	0.707
Repurchase intention ^d		
I will buy Organization X's products the next time I buy (X) items.	0.839	0.833
I intend to keep purchasing Organization X's products.	0.834	0.829
I would actively search for this brand to buy it.	0.814	0.732
Word of mouth ^e		
I often tell others about Organization X.	0.926	0.917
I recommend Organization X's products to others.	0.927	0.925
Frequency of visiting ^f		
How often do you visit the community?	n/a	
Frequency of "liking" ^g		
How often do you 'like' the content of the community?	n/a	
Frequency of commenting ^h		
How often do you write comments?	n/a	

Scale sources:

^a Brand community commitment – Hur et al. (2011); ^b Community promotion behavior – Koh and Kim (2004); ^c Attitudinal loyalty to the brand – adapted from Chaudhuri & Holbrook (2001) and Laroche et al. (2012); ^d Repurchase intention – Algesheimer et al. (2005) and Chaudhuri & Holbrook (2001); ^e Word of mouth – Hur et al. (2011); and ^f Frequency of visiting, ^g Frequency of "liking", ^h Frequency of commenting – Gummerus et al. (2012).