Relationship Development Process in Brand Community: From the consumer-consumer-company triad perspective

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**Recommended Citation**
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ABSTRACT
This study investigates the determinants of consumer loyalty in the context of brand communities and proposed an empirical model of consumer loyalty toward virtual communities. We consider two perspectives of consumer loyalty development process: communication between consumer and company, and communication among consumers. In particular, we empirically examine the dynamic impacts of network-based characteristics on consumer loyalty by assessing the effects of connectivity, closeness, centrality, and density of the virtual network. This study provides a set of measurements characterizing network properties, which enables us to overcome the limited implication of network dynamics inherited in the conventional mathematical approach. Field practitioners should be able to use the resulting outputs by deploying proper design strategy. A structural equation modeling approach will be used to test the proposed model.

Keywords
Network, Relationship marketing, Brand community, Network characteristics

INTRODUCTION
The brand community has become an important communication channels for consumers due to enhanced accessibility to and easy acquisition of information. An online brand community is a community formed on the basis of brand admiration on virtual spaces, facilitating relationships among consumers (Muniz and O'Guinn, 2001). Through the brand community, firms invest such resources as capital, effort and attention to develop and maintain relationships with consumers. Recently, firms attempt to create psychological ties that motivate consumers to maintain the relationship and even to admire the brand (Kristof De, Gaby, and Iacobucci, 2001) and the social ties they keep up within the community and in the level of involvement with the topic or central activity of the community (McWilliam, 2000). For example, Coca Cola creates own official Facebook account and interacts with brand community members by posting news and information regarding products, replying to their inquiries, offering coupons, or even having small talk. Through these online activities, the firm has an opportunity to develop consumer loyalty, and to obtain valuable market information.

Consumers participate in a brand community to obtain useful information for purchasing decisions. Consumers tend to search for information through interaction with others who have experience with the same product or brand. In this context, an online brand community through which existing or potential consumers freely communicate with others offers firms an effective mechanism to build brand loyalty.

While brand communities draw increasing attention from both researchers and field practitioners, there is still a lack of studies investigating the effects of community network characteristics on consumer behavior associated. The majority of studies in the area address the limited characteristics of communities and the cognitive measurements of community benefit or satisfaction (Palmatier, Dant, Grewal, and Evans, 2006) based on the company-consumer context. However, according to Muniz and O'Guinn (2001), relationships in brand communities relate not only a consumer-company but also a consumer-consumer. This study attempts to fill the gap by examining community members’ perception on the company-consumer-consumer triad relationship and to examine the influential antecedents and dynamics of member’s loyalty to a brand community.

Findings from this study may shed light on the dynamics of virtual brand communities, and would provide a set of guidelines for managing online brand community.
THEORETICAL BACKGROUND

Network of Online brand community

Figure 1 shows the consumer-consumer-brand triad network (c), which can be distinguished in two networks; a network between consumer and company (a), and a network formed by a group of consumers (b). The two are coalesced into one in an online brand community.

Figure 1. Triad Relationship in Online Brand Community

The two networks can be differentiated in terms of their focus and nature of activities. The focus of company-consumer network (Figure 1. (a)) can be characterized mainly with consumer relationship management by the company. Companies offer participating members economic benefits and nurture positive feelings of them. This relationship investment from company based on a one-to-many relation can also be differentiated by characteristics of individual members.

Another type of relationship existing in brand community is among members (Figure 1 (b)). In a brand community, the relationship paths are represented by communication by posts and replies. Members in community post their opinion on board and reply each other. Virtual relationship is formed, when others read the messages. Some members tend to read more, and others tend to post or reply more. Individual members’ relationship with a community can be represented by such differentiated communication quality and quantity.

Company - Consumer relationship perspective

Brand community activities are often considered as a leverage of consumer relationship development (McAlexander, et al., 2002). A brand community provides company with the means to facilitate consumer relationship development process not simply with individual consumers, but with the whole consumer group. Creating relationship marketing, and obtaining consumer feedbacks through online communities are a common practice to achieve brand loyalty (Tsai and Huang 2007), which in turn affects the prospects of establishing positive market relationships. Increased consumer loyalty is one of the most common outcomes expected from relationship marketing. A firm’s investment on a brand community helps establishing, developing, and maintaining stronger relationships with consumers (Morgan and Hunt, 1994).

Consumer – Consumer Network perspective

Recent studies have emphasized the increasing importance of consumer-to-consumer interaction (McAlexander, et al., 2002; Muniz and O'Guinn, 2001). Recent studies in social network theory are concerned with information or product exchange (Bagozzi, 1975), and members’ interactions in networks relationships (Iacobucci and Hopkins, 1994). The focus of the analysis is on a single relationship between two parties (e.g., a channel dyad). Iacobucci and Hopkins (1994) further developed a model that dyad in relation to other, over multiple time periods, on multiple relational dimensions, and under various environmental conditions.
Although dyadic relationship has been studied extensively, the relationship marketing literature neglects the fact that consumers are consciously connected to each other and their feeling is affected by network characteristics of such as degree of centrality or connectivity. A network analysis approach can be applied to interpret the behavior of community members in light of their varying positions such as hub and broker within community.

More recent studies have focused on the statistical properties of network structure using sets of nodes or vertices joined together in pairs by links or edges (Girvan and Newman, 2002). A set of consumer network data was gathered to present all ties surrounding sampled individual units. This contemporary network analysis approach mainly focuses on actual social ties and exchanges more than the social psychological constructs such as perceived network structure within network. Consumer behavior, however, is driven by individual perception of how one perceives a given environment. This study develops the measurement for perceived characteristic of community network, considering the consequences of perceived network characteristic such as perceived network density or perceived connectedness between consumers.

HYPOTHESIS DEVELOPMENT

Research Model

This study examines the effects of (a) consumer-company relationship and (b) consumer-consumer relationship on consumer community loyalty. Consumers feel a sense of community such as relationship quality and we-intention as a result of having a positive sense of relationship with company and consumer network. Our study considers such individual-level psychological factors as the mediating variables of the model. Those individual level factors may provide more detailed understanding of how to build long-term, committed consumer-brand relationships. Figure 2 depicts the proposed research model of this study.

![Conceptual framework of the relationship development process in brand community](image)

**Dependent Variable**

**Community Loyalty**

The most common objective of a company’s relationship marketing is to develop brand loyalty (Andersen, 2005) and developing a strong brand community could be a critical step in creating brand loyalty (Winer, 2001). Brand loyalty is an overall attachment or deep commitment to a brand. Studies in brand community showed that relationship investment positively affects consumers’ perception of relationship quality with the brand, which ultimately raises consumer loyalty.
toward both the community and brand itself. Since community loyalty has been considered to be a key determinant of consumer relationship, this study considers the loyalty as a dependent variable of relationship development.

**Company-Consumer relationship perspective**

**Relationship quality**

Relationship quality can be considered a success factor of successful relationship development (Smith, 1998). Studies have identified three key dimensions of relationship construct; satisfaction, commitment, and trust. Relationship satisfaction refers to a community member’s affective state resulting from an overall assessment of one’s relationship with a company (Anderson and Narus, 1990). The development of trust is an important determinant of consumer-company relationships (McWilliam, 2000). Commitment is an important outcome of good relational interactions (Jang, Ko, and Koh, 2007; Casalo, Flavian, and Guinaliu, 2007). Relationship commitment is a consumer's enduring desire to continue the relationship with the company accompanied by this member's willingness to make efforts at maintaining it through community (Morgan and Hunt, 1994).

Empirical evidence of positive relationships between dimensions of relationship quality and behavioral loyalty has been found. With respect to satisfaction as a dimension of relationship quality, Bolton (1998) found positive paths from relationship satisfaction to relationship duration and relationship intentions, indicators of loyalty. Regarding trust as a relationship quality dimension, Smith and Barclay (1997) reported a positive effect of trust on forbearance from loyalty. Morgan and Hunt (1994) find empirical support for the relationship between a consumer's commitment and acquiescence and propensity to leave. Derived from these findings, we investigate the following:

**Hypotheses 1:** A higher level of relationship quality leads to a higher level of behavioral loyalty.

**Preferential treatment**

Members of a brand community are often offered special shopping events or preferential access to certain products for sale. This preferential treatment measures consumer's perception of the extent to which a company treats and serves its community members better than its non-members, including emotional and financial treatments (Gwinner, Gremler, and Bitner, 1998). The widespread uses of preferential treatments provided through brand communities are financial returns. Most common financial benefits are tangible ones including consumer loyalty bonuses, free gifts, and personalized cents-off coupons (Peterson, 1995).

It is reasonable to expect that a higher degree of preferential treatment through the brand community leads to a higher perceived level of relationship investment made by the company, and thus consumers apprehend that the company recognizes the value of relationship quality with consumers. A distinctive treatment enables a company to address a consumer's basic human need to feel important (Peterson, 1995). Also company's differentiated treatments are considered as an additional effort to valuable consumer and make consumers to be special. That is, by providing special treatment benefits, company may increase emotional and/or cognitive evaluation, which results in improved relationship quality on the part of the consumer. This leads us to the following hypothesis:

**Hypotheses 2:** Perceived preferential treatment is positively related to perceived relationship quality.

**Contact intensity**

Contact intensity is a consumer's perception of the extent to which a company interacts with its members in frequency and open with a warm and personal way (Metcalf, Frear, and Krishnan, 1992). Stone (1954) highlighted the importance of relationship investments in recognizing the existence of shoppers who appreciate personal contact with a company representative. When a company makes a social support of communication on behalf of a consumer, this consumer would be favorably impressed by company’s relationship investment (Kristof De, et al., 2001).

In the brand community context, contact intensity reflects a company’s effort to keep the communication channels open with consumers and to show a sign of their commitment to the relationship. Efforts to "stay in touch" with consumers have been identified as a key ingredient of relationship maintenance (Crosby, 1984). Community members achieve coordination by sharing information through two-way communication with company. Company’s communication may reduce possible issues of distrust and conflict (Dwyer, et al., 1987) by consistent contact and offering reliable information so fosters satisfaction in the continuity of the relationship and creates psychological bonds that encourage high evaluation of relationship quality (Smith and Barclay, 1997). Hence,

**Hypotheses 3:** Contact intensity is positively related to the perceived level of relationship quality.

**Perceived commitment**
Asymmetries in commitment result in unsatisfactory relationships because the more committed party is vulnerable to opportunism by the less committed party (Anderson and Weitz, 1992). In the brand community context, the level of company's commitment reflects long-term investment intentions, providing the basis for consumers to develop confidence in the value of their relationship (Gundlach, et al., 1995). In other works, the strength of consumers' commitment depends on their perceptions of efforts made by the company.

If the consumer perceives the company as less committed party, then consumer probably discontent that company might abandon the relationship by ignoring consumer’s voice. Consumer’s evaluation about the company’s commitment may not be accurate. However, consumer’s actual commitment to company is influenced by the perception of company’s commitment such as willingness to make sacrifices to benefit of consumer (Dwyer, et al., 1987). Therefore,

**Hypotheses 4:** perceived company’s commitment is positively related to the relationship quality.

**Consumer-Consumer network perspective**

**We-intention**

The current study conceptualizes we-intention as a collective mind which develops as a group intention among brand community members, based on the premise that members regard themselves as part of the fabric of brand community (Bagozzi and Dholakia, 2002). We-intention is related to cases of joint action, situations in which some agents act together, usually or often with the purpose of achieving some joint goal (Tuomela and Miller, 1988). This mental integration among members increases consumer loyalty of community (McAlexander, et al., 2002).

**Hypotheses 5:** We-intention is positively related to the community loyalty.

**Network connectivity**

Virtual network connectivity is an individual’s perceived degree of virtual connections in terms of how many members an individual interacts with (Kang, 2009). Product or service information is important in providing a basis for action of consumers. The network connectivity among members of a brand community allows a cost-effective way of accessing a wider range of information sources (Chiu, Hsu, and Wang, 2006). The major concerns in this case would be the amount of tied connections an individual has and accessibility to the information.

The virtual network connectivity may be associated with we-intention. In other words, the more people are in an individual’s network connection, the more likely they act collectively based on shared information. In high connectivity environment, individuals are more likely than others to understand and comply with group norms and expectations (Rogers and Kincaid, 1981). If the individuals’ ties are sparsely connected, then there is little motivation to associate with the other members, leading to act individually. Therefore,

**Hypotheses 6:** Perceived virtual network connectivity is positively related to the We-intention.

**Network closeness**

While network connectivity measures the quantity of network connections, network closeness assesses the quality of the communication network. Virtual network closeness represents the strength of ties in terms of one’s perceived intimacy and communication frequency among members of a brand community (Marsden and Campbell, 1984).

Frequency of communication across multiple communication modes tends to be significantly related to the strength of relationship and perceived closeness in the relationship (Cummings, Butler, and Kraut, 2002). Frequent and close social interactions permit members to know one another, deriving easy to access and share important information and perceive to each other as closer, and their belongingness will become more concrete. Belonging and positive feeling toward members of a brand community, which is similar to emotional attachment and sense of community as Kang (2009) suggested, lead to member’s joint intentions, so called we-intention (Tuomela, 2005). Hence, we suggest the following hypothesis:

**Hypotheses 7:** Perceived virtual network closeness is positively related to the We-intention.

**Network centrality**

Understanding the effect of network centrality in a brand community is based on the area of information diffusion (Wasserman and Faust, 1994). In many cases, a centralized network structure consists of a few members who play the role of communication hub within the network, and others tied to them, but not to each other (Wasserman and Faust, 1994). The example of this communication agent is presented in Figure 3. The centrality of virtual community (a) is greater than virtual community (b).
Figure 3. Network centrality (VC1 > VC2)

N₁ represents the number of members of virtual community 1 (VC₁), and N₂ represents the number of members of virtual community 2 (VC₂). Let S₁₁ and S₂ᵢ denote the members in VC₁ and VC₂, respectively. And, let C₁ᵢ and C₂ᵢ be the number of connections of S₁ᵢ and S₂ᵢ. Assuming N₁ = N₂, centrality of VC₁ is greater than VC₂ if the greatest value of C₁ᵢ is larger than greatest value of C₂ᵢ. As shown in Figure 3, the greatest values of C₁ᵢ and C₂ᵢ are 6 and 4. Therefore, the network centrality of VC₁ is greater than the ones of VC₂.

While researchers have found that centralized networks are more efficient for information diffusion (Anderson and Narus, 1990), little attention is paid to how members feel about centralized network. According to organization studies, people find a decentralized network more favorable than centralized one in terms of power balance and control (Ahuja and Carley, 1999). Centralization reflects the extent to which a network or group is organized around its focal point (Freeman, 1978). Freeman (1978) proposed three separate type of centrality, including degree centrality (involvement), distance centrality (power), and betweenness centrality (information control). Here, we are interested in a person’s involvement such as posting and active information diffusion in a group and therefore utilize the notion of degree centrality.

Degree centrality is based on the number of individuals an individual is adjacent to or connected by a tie (Wasserman and Faust, 1994). In the brand community context, the tie is considered as a behavioral interaction like talking together or sending messages in the form of posting or reply. Central actor has the most interaction to other actors in the network so s/he will be the most active, posting too much compared to other members (Wasserman and Faust, 1994). Therefore, high centrality means that few particular members mainly share own opinion, so that community is dominated by those members’ activity.

In the low centrality environment, when a member thinks she or he is close to and interacts frequently with most of members, the individual develops a positive self-defining relationship with brand community members and a commitment of an individual to participate in joint action. This grows member’s community belongings concretely.

In the high centrality environment, if a member feels that s/he is close to only a few members then, the rest of members do not feel the involvement. In whole network environment, it is not possible that particular few members represent the other members’ thought or opinion. Therefore, in high centralized network situation, the individual member could develop not a identifying himself with whole community members but a similarity with a few members as member feels close with member the network, developing individual or small fraction of group of intention. Also in high centrality environment, a member can feel connected to few members who actively posting, it is hard to be identified or collectivized with whole network composed by more number of members since there is limited information from few members.

**Hypotheses 8**: In a brand community with a higher degree of network centrality, virtual network connectivity is less positively related to the We-intention.

**Hypotheses 9**: In a brand community with a higher degree of network centrality, virtual network closeness is less positively related to the We-intention.

*Network density*
Density of network is the number and proportion of links in the networks as a whole (Wasserman and Faust, 1994). Density of network can be calculated by the ratio of the number of existing connections to the maximum number of connections available (Wasserman and Faust, 1994). Figure 4 applies the definition of network density to the context of virtual brand community. The activity density of VC1 is greater than the one of the VC2, since

$$\sum_{i=1}^{n} C_{1i} > \sum_{i=1}^{n} C_{2i}$$

Figure 4. Network density (VC1 > VC2)

Here are the conditions for density comparison.

In Figure 4, in the brand community context, connections between members can be considered as posting or opinion sharing by replying to the postings since such community activities show the intention to make tie with the rest of members. Therefore, activity density can be defined as ratio of the number of active members (posting and replies) to the maximum number of availability.

High activity density environment guarantees an abundant of information and wide range of knowledge sources. When there are diverse and lots of information in forms of posting or reply, a member’s positive emotion about close connection with other members makes it easy to agree or compromise with the opinion of other members and to be integrated as a whole network, resulting in collective behaviors. Moreover, if a member feels closeness with other members, integration into community would even be forced.

In the contrast, even though a member feels connected to others in the low activity density environment, it is hard to be identified or collectivized with other members since there is limited information sharing with. Also as they think they are close with members of community, as attachment to someone’s biased position would be strong since the information sources are limited. Therefore,

**Hypotheses 10:** In a brand community with a higher degree of network density, virtual network connectivity is more positively related to the We-intention.

**Hypotheses 11:** In a brand community with a higher degree of network density, virtual network closeness is more positively related to the We-intention.

**METHODOLOGY**

**Scale development**

All constructs were operationalized by multi-item measures using 7-point Likert-type scales with anchors of 1 = strongly disagree and 7 = strongly agree. The measures of the constructs used in this study are based on the related literature. For some constructs, scales applicable to a retail context were not available and will be developed for the purpose of this study. The measures and sources will be provided in the Appendix.

**Survey design and Sampling**

Data collection will be conducted in two fold. First, as four variables are newly developed, we will verify the measurement model using data collected from 200 MBA students. Another dataset for the main study will be constructed with a total of 400 active virtual community members. We will use the screening condition that respondents should have participated in a
brand community. The study will be introduced as an opinion survey, and participants would first list their favorite brand community. The questionnaires will be administered to all participants using a pencil-and-paper method.

Analysis

A summary of the respondent descriptive statistics will be shown in Table. Measurement reliability of the constructs is examined through a confirmatory factor analysis. Discriminant validity between the constructs will be acceptable as none of the squared correlation coefficients between any of the constructs exceeded the average variance extracted for a construct. Results of correlation analysis will be depicted in a table.

Structural equation modeling would be used to test the models shown in Figure 1. The goodness-of-fit of the overall models will be assessed with the chi-square tests, the root mean square error of approximation (RMSEA), and the comparative fit index (CFI). Satisfactory model fits are indicated by non-significant chi-squared tests, RMSEA values less than 0.05, and CFI and GIF values greater than or equal to 0.90. This study expects the model of Figure 1 is consistent with the data and all paths are significant.

CONTRIBUTION TO ACADEMIA

Investigation of different effects of factors across network effect and relationship quality would be considered one of the contributions of this study to the existing body of knowledge in the related academic area. Prior empirical studies that employed relationship theory to examine the influence of the investment in virtual community contexts investigated only effects of loyalty. Possible relationships among the network structure and its role and effect toward loyalty have been ignored. Hence, this research will investigate the influence of both perceived network characteristics on community loyalty and the moderating effects of objective network properties on those relationships by developing hypothesis 6 to 11. The structural modeling of the constructs among the factors of network structure and the empirical investigation of its differing impacts on community loyalty could be assessed as a theoretical contribution of this study.

MANAGERIAL IMPLICATIONS

By considering and developing consumer’s sense of network characteristic, this study will contribute managerial supports. Since consumers’ behavior and loyalty on community is influenced by how they feel about feature of networks regardless the real networks property like density or centrality, company can use this personal perception to enhances members’ loyalty by design proper strategy. For example, centralized network is known to be good for information diffusion, but positive sense of community would be damaged in centralized environment.

LIMITATIONS AND FUTURE RESEARCH

Besides the managerial and academic implication, for more consistent results of the model, Mathematical modeling procedure with raw data would be desirable. Future research would require analyzing the longitudinal effects of network a time. Longitudinal research designs on given brand community would allow for the monitoring of changing network characters and attitudes of members. Also further personal characteristics such as age, gender, introvert or extrovert should be tested on the consumer perception.

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