

The Role of Sense of Community in Online Brand Social Networking Sites

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ABSTRACT

This study was designed to explore the phenomenon of social commerce marketing in relation to consumer-brand relationship development. The specific research objective were as follows: (a) to identify multiple factors motivating consumers to have sense of community in the context of brand social networking sites; (b) to investigate the effects of general connection between consumers and the brand on developing a sense of online brand community in social networking site-based brand communities; (c) to examine potential outcomes of having a sense of online brand community in brand social networking sites such as brand commitment, advocacy, and loyalty; (d) to investigate whether levels of participation in brand social networking site strengthens the relationship between a sense of online brand community and relational outcomes such as brand commitment. Theoretical foundations from sense of community (i.e., sense of psychological community), social identity theory, and social capital theory were used to support and test a proposed model.

This research employed an online self-administered survey method. A total of 617 complete responses were collected from consumer panels across United States. The analyses of responses were based on a two-step approach: confirmatory factor analysis and structural equation modeling. Through confirmatory factor analyses with the measurement model development, each construct was examined carefully. The results from the structural model suggested that perceived social support and consumer-brand relationship were important drivers of relationship mediators (i.e., sense of online brand community), which led to relational outcomes (i.e., brand commitment, brand preference, brand advocacy, and behavioral loyalty). However, need for affiliation did not have impact on developing a sense of online brand community. In addition, the levels of engagement of in brand social networking sites strengthened the relationship between sense of online brand community and brand commitment. From the results, academic and managerial implications were suggested, and suggestions for future research were presented.

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CHAPTER I: INTRODUCTION

“A dream you dream alone is only a dream. A dream you dream together is reality.”

-John Lennon

This research explores the phenomenon of social commerce in relation to the concept of sense of community. To identify the research problem, this chapter begins by exploring the research phenomenon and addressing the emergence of social networking sites, as well as its impact on the process of building successful relationships between a brand and its customers. The next section describes the research questions and specific research objectives. Then, potential contributions to the knowledge in consumer behavior literature are presented by addressing the needs of the research. Based on a review of literature in various disciplines, the conceptual framework presents how this study's objectives are structured. Lastly, a specific social networking site implemented for analyzing this study is described.

Research Phenomenon

The exponential growth of such advanced interactive communication channels as social media, has introduced a new marketing term, *social commerce* (Siau & Erickson, 2011). Broadly defined, social commerce is a subset of electronic commerce that uses social media to support social interactions and user contributions to enhance the online purchase experience in terms of product discovery, product referral, and co-creation of values (Kozinets, De Valck, Wojnicki, & Wilner, 2010; Marsden, 2010; Stephen & Toubia, 2010). According to Stelzner (2011), people spend 1 to 6 hours per week on social media activities; taking cues from these statistics, more than 94% of companies have adopted social media as strategic marketing tools (D. Evans & McKee, 2010; Stelzner, 2011). According to eMarketer's (2011) estimates, advertising revenue

in social networking sites reached more than \$5 billion in 2011. The rise of social media has created opportunities for new marketing methods such as social commerce and for changing the way to connect directly with consumers at a personal level (Hennig-Thurau et al., 2010).

The proliferation of social media platforms provides companies with an additional strategic social venue that cultivates relationships with consumers and engages with them. Industry analysts have agreed that Social Networking Sites (SNSs) are dramatically changing the marketing landscape and will continue contributing to the success of marketing communication strategies (Binns, 2011; Geron, 2011; Kaplan & Haenlein, 2010). Scholars also have paid attention to SNSs' impact on relationship formations (Ellison, 2007). By participating in various SNSs, individuals are able to create new social ties as well as maintain existing relationships (Kaplan & Haenlein, 2010). In the personal relationship context, SNSs have transformed the meaning and nature of "being friends" (Eysenbach, 2008). For instance, being a "friend" in SNSs, such as Facebook or Twitter, include relationships with both close friends and distant acquaintances. Unlike the traditional meaning of friendship, which describes close relationships as having emotional comfort, SNSs encourage users to have as many friends as possible because the number of friends in SNSs often indicate popularity or social status (Beer, 2008).

Likewise, the formation of business-to-consumer (B2C) and consumer-to-consumer (C2C) relationships in the SNS setting can be different than traditional communication channels. In terms of B2C relationships, companies mainly tend to pursue and to develop long-term relationships with customers due to potential benefits, such as customer brand loyalty (Baloglu, 1994; De Wulf, Odekerken-Schröder, & Iacobucci, 2001). However, B2C relationships in SNSs can be easily shifted as consumers exercise more power over companies' operations based on the availability of content creation and its dissemination (Aikat, 2009; Harwood & Gary, 2010).

Consumers become a “member” or “follower” of a brand in SNSs, but little research has attempted to investigate consumers’ underlying motivation to follow a certain brand or to depict the meaning of building relationships in an SNS setting. To answer such questions, this study revisits theories and literature about consumption communities, online brand communities, relationship marketing, and interpersonal communication. In particular, this study explores the literature about community psychology and brand communities in marketing. Community psychology literature provides insight into underlying consumer motivations for participating in SNSs. Brand community research also provides insight into the formation of community in SNS settings by investigating the consumers’ role in the process of brand-community formation (Muniz Jr & O’Guinn, 2001; Schouten & McAlexander, 1993).

In community psychology literature, Sense of Community (SOC) provides a fundamental understanding of an individual’s identity as well as intra- and inter-relationships (McMillan & Chavis, 1986; S. B. Sarason, 1974). Studies based on the SOC concept emphasize individuals’ feelings toward a community by elucidating the feeling of belonging. Furthermore, SOC guides researchers to understand consumers’ voluntary engagement and sharing of personal stories in various community settings (A. L. Blanchard, 2008; Carlson, Suter, & Brown, 2008). Compared to existing approaches that depict individuals’ relationships within community based on descriptive framework such as shared interests or shared consciousness, SOC focuses on an individual’s perception towards community and others. Therefore, this theoretical lens helps to understand a heterogeneous population and a larger community, which are the characteristics of SNSs (Sarason, 1974).

The Purpose of the Study

The purpose of this study is threefold. First, it attempts to investigate determinants of sense of community in brand communities by exploring various factors, including individuals' characteristics and social characteristics at multi-levels (Roberts, Smith, & Pollock, 2002). Second, this study investigates whether the relationships between a consumer and the brand serve as a key antecedent to a sense of community. Third, this study aims to explore whether members in SNS-based brand communities have a sense of belonging, which leads to the brand commitment.

While positive consequences of building successful community are widely discussed in the marketing literature (e.g., Algesheimer, Dholakia, & Hermann, 2005), few studies have investigated determinants of consumers' engagement in SNS-based brand community. Moreover, this study uses a relational- and psychological-focused approach to investigate B2C and C2C relationships; this approach is opposed to the transactional-based approach discussed in dominant studies (Li, Browne, & Wetherbe, 2006). Thus, this study's objectives are as follows:

- (1) To identify multiple factors motivating consumers to have SOC in SNS-based communities
 - a. To examine psychometric factors, such as need for affiliation, which motivate individuals to build social relationships
 - b. To examine contextual factors, such as exchange supports, which predict sense of community in SNS-based brand community
 - c. To examine whether individual characteristics, such as level of involvement and demographic variables, predict sense of community in SNS-based brand community
- (2) To investigate the effects of consumer-brand relationships through overall consumers' connection to the brand on SOC in SNS-based brand community
- (3) To examine potential outcomes of having SOC in SNS-based brand community and overall consumer-brand relationships, such as brand commitment, brand preference, brand advocacy, and behavioral loyalty

- (4) To investigate the moderating effects of B2C and C2C engagement on strengthening the relationship development and relational outcomes

In this study, the concept of SOC highlights consumers' social and psychological states. Understanding the feelings of consumers helps to explain their interactions and voluntary participation in a community. The essence of SOC lies in measuring the subjective quality of an individual's feeling of belonging and perceptions of a target; consequently, SOC can be implemented in various contexts, depending on the research purposes (A. L. Blanchard & Markus, 2002; Glynn, 1981). Therefore, adopting SOC to explore SNSs' novel nature is valuable in this study.

The Significance of the Study

This study is expected to contribute to knowledge in multiple ways. First, it attempts to fill the gap in the brand community literature by exploring determinants and outcomes of brand community engagement in the context of SNSs. While scholarly articles and industry reports focus on how to monetize consumers' adoption of SNSs, few studies have examined cognitive and motivational processes consumers experience in building B2C and C2C relationships through SNSs. Applying multi-level factors provides a holistic and systematic explanation for individuals' motivations to belong to and engage in a community (Nowell & Boyd, 2010). In particular, this study proposes the effects of psychometric, contextual, and individual characteristics on creating a sense of belonging in a SNS-based brand community. To explore the effects of the psychometric factor inherited in individuals' personality, need for affiliation is examined to elucidate individuals' motivation to build social relationships in a community (Wiesenfeld, Raghuram, & Garud, 2001). Indeed, an investigation of psychometric factors that stimulate individuals' engagement is expected to provide marketers insightful guidance to

develop effective social commerce strategies that cultivate long-term relationships (Rigby, 2011). This research also examines the effects of contextual factors, such as individuals' perception of support within a community. Despite the growing interest in SNSs, little research has investigated characteristics of a SNS-based brand communities and consumers' perception of support within those communities (Nambisan & Watt, 2011). Nambisan and Watt (2011) address the lack of research on the unique nature of brand communities in SNSs including the high level of interaction, the frequency, and the heterogeneous demographics.

Second, this study also proposes the role of overall consumer-brand relationships that develop SOC. Unlike existing brand communities' participants in online or offline settings, participants in SNS-based brand communities are heterogeneous and share fewer activities, which are considered a core factor in community development (Ansari, Koenigsberg, & Stahl, 2011). Although ties among individual consumers are not strong and significant, relationship with the brand serves as a motivator leading to consumers' active participation in SNS-based brand communities. Exploring the relationship of consumers with a brand will depict how their experiences and connections strengthen a sense of belonging. SNSs are dynamic and a variety of users interacts within those settings compared to the traditional brand communities that enthusiastic brand admirers form; therefore, understanding overall consumer-brand relationships provides insight into different levels of consumer participation. Participants in SNS-based brand communities vary from invisible observers to active participations (Kozinets, et al., 2010). As a result, adopting existing brand-community frameworks involving mainly active and enthusiastic customers may lead to misunderstanding consumer behaviors in SNSs. For instance, on Facebook users can show their support of others' postings, pictures, or links by clicking the "Like" button. Users who click "Like" button reflect their positive feeling or support towards the

brand in relatively invisible ways. In this sense, general consumer-brand relationships predicts and explains various levels of consumer participation based on overall relationships with the brand (Bhattacharya & Sen, 2003).

Third, this study contributes to the existing literature on brand community by introducing the sense-of-community concept into community psychology. In this study, sense of community is proposed to explain consumer engagement in SNS-based brand communities. SOC captures individuals' feelings and perceptions toward a community, which need pre-assumption of homogeneous participants population with similar community experiences (Sarason, 1974). Carlson et al. (2008) assert that much is to be learned beyond the functional and social network-based approaches to understanding brand-community participation. Mainly focusing on addressing individuals' value judgment and minds of togetherness, SOC reflects emotional aspects of individuals' community participation and attachment to the community. Furthermore, the benefit of adopting SOC is its flexibility in operationalization depending on study contexts. Although the essence of SOC and its conceptualization do not change, Sarason (1976) claims that SOC can be modified based on study contexts. For example, Burroughs and Eby (1998) explore the psychological sense of community *at work* and develop a distinct SOC construct compared to the original construct, which includes membership, influence, need for fulfillment, and shared emotional connection. Similarly, several researchers adopt and operationalize SOC differently in the context of campus setting (e.g., Cicognani, Menezes, & Nata, 2011), urban environment (e.g., Chavis & Wandersman, 1990), and virtual world (e.g., Kim & Koh, 2003).

Lastly, this study contributes to the existing literature on brand loyalty by examining alternative measures of positive customer relationships. Although the literature often focuses on functional values of cultivating brand communities (Flavian, Casalo, & Guinaliu, 2010;

Mathwick, 2002), this study addresses the benefits of establishing a relationship, including not only quantitative measures such as customer spending, but also quality of relationships based on relational outcomes, such as brand commitment, preference, and advocacy. Specifically, this study proposes that the commitment in brand communities in SNS facilitates certain types of loyalty behavior, such as word-of mouth and brand preference both online and offline. This study also proposes the relationship between emotional commitment and behavioral loyalty, including customer's spending on and advocacy of a certain brand. As the relationships with and consumers' feeling toward a certain brand will serve as predictors of customer loyalty online and offline, this study explores possible relational outcomes (Kumar, 2010). Thus, this research is expected to add new insight into successful relationships with consumers in the context of brand community (Carlson, et al., 2008; Tonteri, Kosonen, Ellonen, & Tarkiainen, 2011). This relational-based perspective for this study is presented in Figure 1.

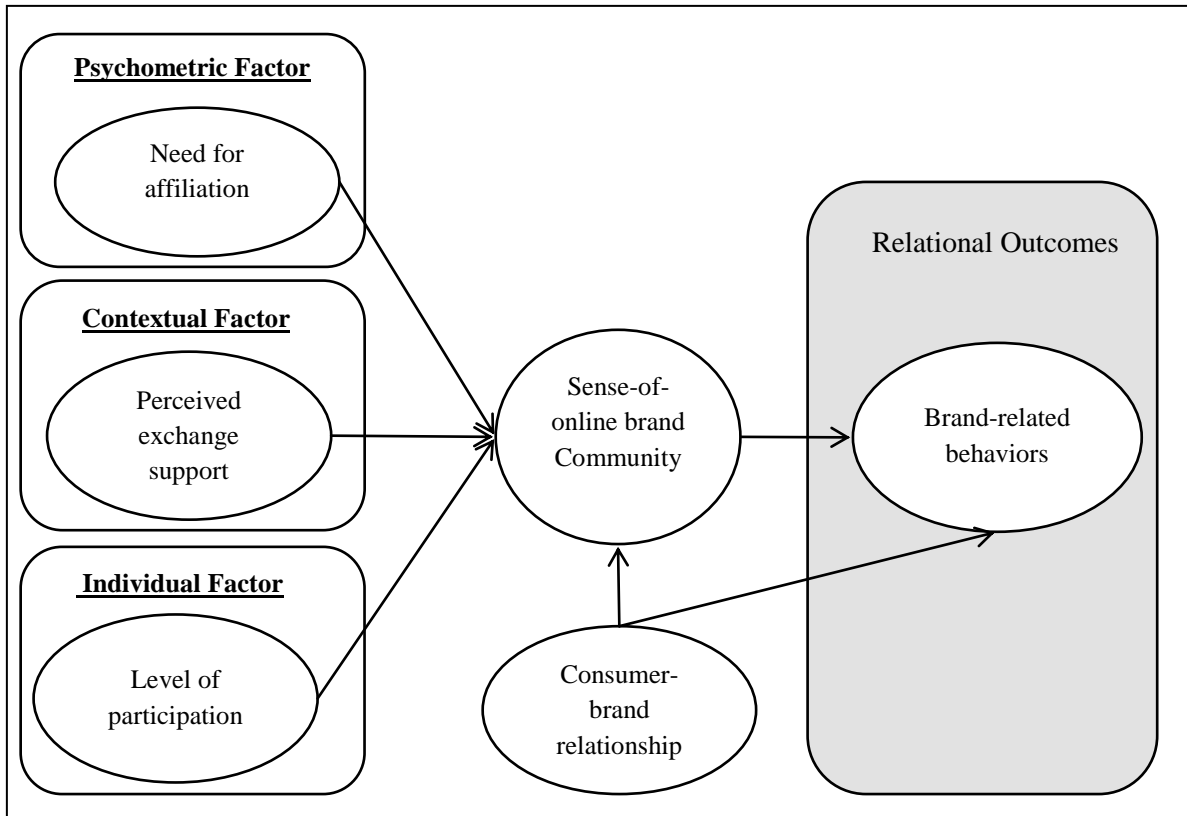


Figure 1. Conceptual Framework

CHAPTER II: LITERATURE REVIEW

Theoretical Foundation

The purpose of this chapter is to present the applicable literature from several fields, including psychology, organizational behavior, sociology, and marketing, to identify possible factors influencing consumers' engagement in SNS-based brand communities. This chapter is comprised of two major sections. The first section begins by reviewing traditional-community literature in community psychology to depict community's nature and meaning. Moreover, this study reviews previous studies in relation to consumption communities to explore possible factors that may motivate community participation in SNSs. In particular, this study adopts the Psychological Sense of Community (PSOC or PSC or SOC) concept to operationalize the meaning of *belonging* among individuals in certain communities. While existing brand-community studies investigate the symbolic construction of community and members' collective behaviors, the psychological sense of community provides in-depth understanding of individuals' feelings of belonging in a community and addresses individual characteristics' effects on community participation (Hyde & Chavis, 2007). The benefits of adopting a psychological sense of community include the ability to modify the concept based on research settings (Pretty, Conroy, Dugay, Fowler, & Williams, 1996). For instance, Davison and Cotter (1993) modified the original SOC construct in the public-school context to investigate SOC's effects on students' intention to vote for supports of the school.

Furthermore, this study adopts two theories from sociology to elucidate social relationships and their impact on individuals. The social identity theory describes various relationships that consumers establish around a brand and a brand community (Stokburger-Sauer, 2010). Based on understanding social relationships between consumers and the brand, social

identity theory explains consumers' motivation to identify themselves with other members and the brand (Ashforth & Mael, 1989). Social capital theory is reviewed to explore consumers' motivation for participating in a SNS-based brand community. Information sharing in SNSs is considered critical as it influences community participation, so social capital theory provides some insights into understanding individuals' voluntary knowledge sharing in a community setting (Brennan & Schafer, 2010).

The literature review's second section focuses on developing and explaining research hypotheses to examine a suggested conceptual model and the potential outcomes of building a successful SNS-based community and relationships with actors. To achieve this goal, this study reviews previous studies that explain the concept and origin of community. This process allows the researcher to understand the nature of community, its formation, and actors that are the foundation to investigating advanced formats of brand community in SNSs (Chavis & Pretty, 1999).

The Conceptualization of Community

The origin of the word *community* is Latin and Old French (Gusfield, 1975). The word *communitas (communitatem)* in Latin is derived from *communis*, which consists of *cum* (with/together) and *munus* (gift), and of the word indicates fellowship, public, and sharing by all or many people. From Old French, *communitate* refers to fellowship or organized society (Tönnies & Harris, 2001). As the origins of the word imply, *community* is closely related to “interactions” and “togetherness.” Given that individuals live with others and that togetherness is a basic need of individuals, it motivates individuals to seek relationships providing a sense of belonging (Baumeister & Leary, 1995). In this sense, understanding community provides insight into

human behaviors, such as why people hope to be a part of some kind of community (S. B. Sarason, 1974).

Researchers in various disciplines have extensively studied the nature, formation, and meaning of *community* to provide explanations for what motivates social relationships among people (Gusfield, 1975). Some social-science researchers have attempted to define *community*, whereas others have described factors that may influence community's establishment (Tonnies, 1925). Tonnies (1925) first conceptualized community by identifying two forms of social organization: *Geminschaft* (the communal cohesion of pre-industrial village life) and *Gesellschaft* (instrumental relationships formed to pursue individual goals). In the *Geminschaft* approach, community is established based on kinship or a place, and provided emotional support; so this approach interprets community formats in the pre-modern period (Dewey & Bentley, 1946). *Gesellschaft* describes relational communities that have been developed based on some common interests, issues, or member characteristics (Bess, Fisher, Sonn, & Bishop, 2002). Since the *Gesellschaft* approach emphasizes the relational and socially constructed, it is often adopted to explain communities in the Postmodern Era. According to Postmodernism, community can be understood by investigating specific social phenomena and participants' characteristics (Sagy, Stern, & Krakover, 1996). Also, several researchers have discussed the importance of understanding participants' characteristics because the similarities among members often define community types (Chavis & Wandersman, 1990). Consequently, groups of people that have common interests and may not ever physically meet each other are considered to be critical in post-modern community research (Rheingold, 1996).

Marketing researchers have studied the community since the beginning of the Industrial Age (McCracken, 1986). In the traditional meaning of *community*, which is based on blurred

physical barriers, a consumption object or a brand becomes people's major interest. Therefore, consumption-related activities or consumption objects emerge as commonality among people that develop brand communities (Cova, 1997; Schouten & McAlexander, 1993).

Consumption and Community

The meaning of *community* has changed because kinship or locality-based communities have weakened in the Industrial Age (Cova, 1997; Latour, 1991). Individuals' personal interests and shared emotions with others are core factors developing a community (Firat, Dholakia, & Venkatesh, 1995; Wallendorf & Arnould, 1988). Particularly as consumption becomes a daily activity, people gather based on similar interests in referred brands (Maffesoli, 1996). For example, the owners of Harley-Davidson motorcycle, Apple computer, and Nutella gather to share their love of the products and the brands (Cova & Pace, 2006; Muniz & Schau, 2005; Schouten & McAlexander, 1993). In this regard, to gain a better understanding of consumers, marketers and researchers have concentrated on understanding communities developed from consumption-related activities (Arnould & Thompson, 2005). Consumers in a consumption community often have innovative ideas and serve as opinion leaders because they are strongly attached to their interests. For example, Kozinets (1997) investigated the subculture of the television series *X-Files*. As a result of the netnography investigation, the author noted the importance of creating a successful mediation among consumers to build relationships, as well as satisfying the consumers' needs through engaging in the consumption subculture.

Schouten and McAlexander (1993) described various types of consumption communities as subcultures that focus on understanding homogenous groups of people and their bonding, resulting in commitment to the community and community activities. *Consumption subculture* is defined as "distinctive subgroup[s] of society that self-selects on the basis of a shared

commitment to a particular product class, brand, or consumption activities” (Schouten & McAlexander, 1993, p. 43). Consumption subcultures mainly focus on understanding homogenous groups of people united by particular interests in a brand or products. Indeed, subcultures are subsets of society or cultures within cultures, so marketers can learn from passionate customers that voluntarily engage in a consumption community (Bennett, 1999; Schouten & McAlexander, 1993). Muniz and O’Guinn (2001) introduced the concept of brand community, “a specialized, non-geographically bound community, based on a structured set of social relationships among admirers of a brand” (, p.412). As consumers assign special meaning to a preferred brand, similar interests and shared emotions towards a certain brand bind consumers. Thus, a brand community becomes a strategically important consumer group from which marketers can learn about customer attitudes and behaviors, such as brand loyalty and advocacy (H.J. Schau & Muniz, 2002; Slater, 1993). Compared to consumption subcultures, brand community specifies its boundaries and characteristics based on shared consciousness, history, and shared emotion (Muniz & O’Guinn, 2001).

Similarly, Maffesoli (1993) introduced consumption neo-tribalism to delineate post-modern communities by highlighting relationship among individuals. According to his assertion, post-modern communities are developed based on shared emotions, moral beliefs, and consumption practices. The notion of neo-tribalism illustrates the changing nature of collective associations between individuals and their multiple identities. As the term *tribe* describes tribal identities indicating collective identities’ temporal nature in modern consumer society, it demonstrates a broader notion than consumption subcultures. The essence of neo-tribalism is in individuals’ reconstructing their identities according to their desires. Therefore, consumers constantly shift identities and are less committed to a certain community (Shields, 1992).

As technology's development allows changes in society and wider choices for individuals, the traditional meaning of consumption subcultures no longer depicts the community's foundation (Bennett, 1999). Compared to consumption subcultures, the boundaries and range of participants are expanded in brand community research (Algesheimer, Dholakia, & Herrmann, 2005). Although brand community is within the concept of consumption subcultures, and both concepts describe consumer interactions and their bonding, the commitment among brand community members is weaker than among consumption subcultures members. While participants and the commitment levels in a brand community, consumption subcultures, and neo-tribes can be different, the commonality among these concepts is individuals' propensity to have social relationships (Baumeister & Leary, 1995). Each approach to community is described in Table 1.

Table 1. Key Approaches to Understanding Consumer Collectives

Consumer Collectives			
Approach	Subculture of consumption ¹	Brand community ²	Consumption neo-tribalism ³
Definition	Distinctive subgroup[s] of society that self-select on the basis of a shared commitment to a particular brand	A specialized, non-geographically bound community, based on a structured set of social relationships among admirers of a brand	Without the rigidity of the forms of organization with which we are familiar, it refers more to a certain ambience, a state of mind, and is preferably expressed through lifestyles favoring appearance and form.
Similarities	Shared ethos, acculturation patterns, status hierarchies		N/A
Differences	<ul style="list-style-type: none"> a. Outsider status, a significant degree of marginality, and an outlaw culture b. A brand sometimes becomes a religious icon and socially fixed. meaning of a brand c. Minimize collective identities 	<ul style="list-style-type: none"> a. Fairly stable and committed to both the brand and the group b. United by common interests in a brand c. A brand serves as differentiation from other brand admirers. 	<ul style="list-style-type: none"> a. Constantly shifting consumer identities b. Less committed members in a community

Note:

1. Source: Schouten & McAlexander (1995), Subcultures of consumption: An ethnography of the news bikers, *Journal of Consumer Research*.
2. Source: Muniz & O'Guinn (2001), Brand community, *Journal of Consumer Research*.

3. Source: Cova & Cova (2001), Tribal aspects of postmodern consumption research: the case of French in line roller skaters, *Journal of Consumer Behavior*; Maffesoli (1996), The time of tribes: the decline of individualism in mass society, *a book*

Community in Cyberspace

The emergence of Internet has lowered the boundaries of time and space, and people can communicate and exchange information with each other worldwide (Armstrong & Hagel Iii, 1996). With the development of Internet technology, virtual communities have emerged (Cothrel & Williams, 1999). While individuals have physical restrictions such as temporal and spatial boundaries in traditional communities, virtual communities enable people to exchange information with decreased limitations (Rheingold, 1996). Accordingly, consumers and marketers enthusiastically develop virtual brand communities, whose characteristics and participants researchers attempt to investigate (R.P. Bagozzi & Dholakia, 2002; Dholakia, Bagozzi, & Pearo, 2004; Kozinets, 1999). Kozinets (1999) characterized the online consumption community as “affiliative groups whose online interactions are based upon shared enthusiasm for, and knowledge of, a specific consumption activity or related” (p.254). Muniz and O’Guinn (2001) proposed shared consciousness, rituals/traditions, and a sense of moral responsibility as elements of online brand community. *Shared consciousness* represents intrinsic connections with other members and a collective sense of difference from non-members. *Rituals and traditions* reveal the shared history, culture and convention among community members. Lastly, *a sense of moral responsibility* delineates members’ obligation to the entire group. As little influence of geographical and physical boundaries is found in the formation of online communities, social relationships among members and their feeling of obligation have been addressed to understand members’ motivation for participating in these communities (A. L. Blanchard & Markus, 2002). Furthermore, the recent proliferation of the advanced web technology, Web 2.0, enables consumers to have simultaneous and interactive communication that can influence social-

relationship building (O'Reilly, 2007). Consumers who collaborate and share have thrived with tremendous content-creation abilities in interactive communication platforms, such as social media (Brennan & Schafer, 2010). The introduction of social media platforms has dramatically transformed the establishment of brand communities and the roles of members within those communities. Consumers now become active agents in relationship building and information dissemination as they freely create and share experiences (Weinberg, 2009). In social media, consumers continuously share and connect with others; such interactions can be initiatives for creating certain kinds of community (D. Lee, Kim, & Kim, 2011).

Social networking sites in particular have given birth to a new and advanced brand community format. For example, Facebook Page is a representative example of an advanced format of brand community. Although created by company officials, Facebook Pages function like consumer-initiated brand communities since main participants within a Facebook Page are often consumers while companies provide up-to-date brand information (Facebook, 2012). Moreover, Facebook Pages enable participation of a wide and varied range of consumers not observed in traditional brand communities. While the participants in traditional brand communities tend to exhibit "enthusiastic" or "passionate" involvement, members' involvement in brand social networking (BSN) is heterogeneous (Carlson et al., 2008). Due to BSN's openness and transparency, individuals exhibit different levels of engagement and motivation in BSN. For instance, some customers tend to visit BSNs with an apathetic attitude and capricious behaviors to find exclusive deals or coupons (Stephen & Toubia, 2010). On the other hand, other customers enjoy sharing their brand experiences (Brandtzaeg, Luders, & Skjetne, 2010). As such, BSN members' level of engagement with others and the brand is different from that of members in traditional brand communities. Although the engagement levels vary

depending on individuals' needs, enduring motivation to participate in communities lies in seeking social relationships that create a feeling of belonging (Bellah, Madsen, Sullivan, & Swidler, 1985). In this regard, this study adopts the Sense of Community (SOC) concept to depict individuals' psychological state and the meaning of community. One of the most widely adopted and researched constructs, the SOC addresses the importance of individuals' psychology to understand a community formation (S. B. Sarason, 1974).

Psychological Sense of Community

Psychological Sense of Community (PSOC) was first introduced by social psychologist, Sarason (1974). In his book, he investigates motivation, attitudes, personality, and other community factors. In order to describe a community and its function in society in relationship to personal well-being, Sarason emphasizes psychological reasons for creating or participating community, as well as the impact on mental health. In this regard, PSOC highlights individuals' feelings, separated from such background factors as environmental. A PSOC is created by individuals who choose a referent, such as a business organization, to bring meaning to their daily lives. Thus, having PSOC makes individuals to serve as an entity of in some ways (Sarason, 1974). Sarason (1974) conceptualizes PSOC as

“the perception of similarity to others, an acknowledged interdependence with others, a willingness to maintain this interdependence by giving to or doing for others what one expects from them, the feeling that one is part of a larger dependable and stable structure and overarching value by which to judge efforts to change any aspects of community functioning (p. 157).”

The principle of PSOC indicates the individualism's dark side and to emphasize the need to build a sense of belonging towards community to reduce individual mental problems. Sarason (1974)

believes that healthy communities exhibit a high quality of emotional connectedness, which leads to positive mental health as PSOC's experiences help individuals identify with others and pursue shared emotions.

Based on Sarason's initial work (1974), more than thirty researchers have tried to operationalize the concept of psychological sense of community in various contexts and to develop surveys measuring PSOC. Since PSOC focuses on individuals' psychometric prop, PSOC's assertion is that members' feelings do not depend upon interactions or give and take with specific group members (J. L. Hill, 1996). Rather, the perception of similarities in individual characteristics, personality, and environments may influence PSOC (Davidson & Cotter, 1993). Thus, because PSOC can be adopted and modified in different settings, many researchers modify it to indicate community settings (Burroughs & Eby, 1998; Doolittle & MacDonald, 1978; Glynn, 1981; C. A. Hill, 1987; McMillan & Chavis, 1986). For example, examining the relationship between communication and SOC, Doolittle and MacDonald (1987) identified six dimensions of SOC in a neighborhood of Milwaukee, Wisconsin. Glynn (1981) also developed sixty items to measure PSOC. Through a factor analysis of the scale, Glynn identified six dimensions of PSOC: objective evaluation of community structure, supportive relationship in the community, similarity and relationship pattern of community residents, individual involvement in the community, quality of community environment, and community security (Hill, 1996). Through a factor analysis, Riger and Lavrakas (1981) found two components of community attachment: social bonding and physical rootedness. Since PSOC's introduction, many researchers have tried to operationalize and develop measures of SOC in highly particular settings. Among various attempts to operationalize PSOC, McMillan and Chavis's (1986) SOC construct is most widely used by community-psychology researchers.

Although operationalizing the notion of PSOC, SOC is often used to categorize group-level experiences of community based on locality. In addition, SOC is often considered the standard construct to represent PSOC in community research (Bess et al., 2002; A. L. Blanchard & Markus, 2002).

Sense of Community

Historically, *sense of community* refers to an identification with, or a sense of belonging to, a group of individuals (Sigmon, Whitcomb, & Snyder, 2002). The concept of sense of community has been developed to explain individuals' relationships and behaviors regarding geographic location (Brodsky, O'Campo, & Aronson, 1999). The *psychological sense of community* has been used synonymously with SOC because the term represents an experience generated within the interplay of individual and group, which provokes the perception of belonging (Bishop, Chertok, & Jason, 1997). Since SOC is a perceptual measure, the concept has been widely adopted in various contexts; and modifications of Sarason's (1974) seminal work are prevalent in previous studies.

Sense of belonging is widely adopted to understand a person's attachment to and social comfort with community; friends; family; workplace; or personal interests, such as activities or hobbies (Hagerty, Williams, Coyne, & Early, 1996). Compared to SOC, a sense of belonging explains individuals' need to belong with others and the motivations to seek relationships (Baumeister & Leary, 1995). Since its conceptualization is related to levels of social attachment, a sense of belonging is an indicator of social engagement and participation within communities. In a SOC literature, it is measured as a membership component (Burroughs & Eby, 1998). Previous SOC and PSOC studies describe a membership component to illustrate a sense of belonging; but the dimensions of sense of belonging are more complicated. Sense of belonging

incorporates psychological (i.e., affective/internal/evaluative feeling); spiritual (i.e., meta-physical relationship with a being or place); physical (i.e., energy for involvement); and sociological (i.e., feeling of membership) (Kohut, Goldberg, & Stepansky, 1984; Maslow, 1943)

Kohut et al. (1984) suggested the relationship between the self and self-object, which shifts the traditional counseling psychological focus from *libido* and *ego* to understanding self-psychology. Based on Kohut et al.'s (1984) groundwork, Lee and Robbins (1995) developed three belongingness constructs: *companionship*, *affiliation*, and *connectedness*. *Companionship* is similar to cognitive social identity through myriad contacts with a close person or object, so it is closely related to adequate self-esteem and social skills. *Affiliation* is commonly referred to as the need for twin-ship (Kohut et al., 1984). Acknowledging similarities with others allows individuals to feel similarities which lead them to have close relationship like a family. A sense of connectedness is strengthened when companionship and affiliation of self-objects are maintained influencing confidence levels such that individuals behave comfortably within a larger social context. According to Aronoff, Stollak, and Woike (1994), social connectedness is closely related to one's self opinion in relation to other people; therefore, the measures of this concept capture the aspects of belongingness, showing the sense of being "human among humans" (Kohut et al., 1984, p.200). Although SOC, attachment, and belongingness elucidate individual psychological states in relation to social relationships, a sense of belongingness is a higher construct incorporating other concepts because it focuses on the developmental process instead of a discrete state of personal psychology (Lee & Robbins, 1995). Table 2 organizes the existing approaches to conceptualizing self and social relationships in the context of community research.

Table 2. Conceptualizations of Sense of Community

Concepts	SOC (Sense-Of-Community)	'Shared' PSOC (Psychological Sense of Community)	'Individual' PSOC	Sense of Belonging
Conceptualization	A feeling that members have of belonging and being important to each other, and a shared faith that members' needs will be met by the commitment to be together	The feeling of belongingness; the belief that individuals influence and are influenced by the referent group; the belief that their needs are met by the group's collective capabilities; and a feeling of emotional connectedness	Individuals perceive a sense of belonging between themselves and a social setting, an individual's PSOC is likely to be influenced by individual characteristics as well as by those of the social setting or context * The individual experience of sense of community	Sense of personal involvement in a social system so that persons feel they are an indispensable part of the system
Seminal work	Chavis, Hogge, McMillan, & Wandersman (1986); McMillan & Chavis (1986)	Puddifoot (2003)	Brodsky, 1996); Sarason (1974, 1986)	Anant (1966); BAumeister & Leary (1995); Burrough & Eby (1999); Kohut (1984)
Dimensions	Multi-dimensional construct: membership, influence, fulfillment of needs, shared emotional connection (McMillan & Chavis, 1986)	Support, involvement, intellectuality, and order/organization (Pretty, 1990)	A form of attachment (Hill, 1996)	Co-worker support, emotional safety, sense of belonging, spiritual bond, team orientation (Hyde & Chavis, 2007)
Measurement	SCI (Sense of Community Index) ¹		PSOC measures ²	Social connectedness ³ , social assurance
Study setting	Highly particular and localized setting, including residential area, neighborhood, work environments, university setting, educational setting, safety-related issues		Subjective well-being, such as mental health, loneliness, self-esteem, self-conception, anxiety	

Note:

1. Perkins, Florin, Rich, Wandersman, & Chavis (1990) developed SCI measures.
2. Glynn (1981) developed 120 items to measure PSOC in community.
3. Lee and Robinson (1995) developed two measures of belongingness based on Kohut's (1984) self-psychology theory.

Sense of Community Framework

McMillan and Chavis (1986) developed SOC constructs based on Sarason's (1975) initial conceptualization of PSOC. SOC is defined as "a feeling that members [of a group] have of belonging, a feeling that members matter to one another and to the group, and a shared faith the members' needs will be met through their commitment to be together" (p.19). These researchers' SOC construct is based on (1) *Membership*, members' feeling of belonging; (2) *Influence*, feeling to one another; (3) *Integration and fulfillment of needs*, feeling to a community itself; and (3) *Shared emotional connection*, shared faith through members' commitment (p.9). *Membership* refers to the feeling of belonging and identification with others based on shared history, common symbols, emotional safety, and personal investment. *Influence* refers to the bi-directional need of a group to offer its members a feeling of cohesion and of reciprocal influence over what happens in the group. In this regard, influence explains the degree of self-expression (i.e., freedom) that contribute to the community (Bess et al., 2002). The influence component can be easily observed in a strong community as some power of a sub-group or a certain individual suppressing self-expression. *Integration and fulfillment of needs* refer to benefits of being members in a certain community, and reflect the importance of common needs, goals, and beliefs. Lastly, *shared emotional connection* indicates the sharing of events and the number of contacts among members that generate emotional connection and a bond (McMillan, 1996; P. L. Obst & White, 2004).

Historically, SOC has been used in three ways. First, many researchers have used it as some type of end-state of building successful bonding among individuals. For instance, Sigmon, Whitcomb, and Snyder (2002) illustrated that SOC can be developed as individuals identify with, or have a sense of belonging to, a group. This approach has been widely used in online settings and specific context settings, such as school campuses, because the researchers tend to find

predictors and antecedents that can generate bonds such as SOC. For example, McCarthy, Pretty, and Catano (1990) found that empowerment, social support, environmental demands, and psychosocial-climate characteristics are closely related to understanding SOC in campus life. Second, other researchers have adopted SOC as a predictor of building positive or negative community. Burroughs and Eby (1998) found that SOC increases job satisfaction and organizational citizenship. Davidson and Cotter (1991) also adopted PSOC as one of the antecedents predicting students' voting intentions. In this approach, SOC tends to be understood as individuals' feelings and sense of belonging that lead to a positive attitude and positive behaviors towards the community (Davidson & Cotter, 1991). As the concept of SOC assesses a social group's feelings of connection and belonging, it often leads to important outcomes, such as loyalty, altruistic behaviors, and courtesy in communities (A. L. Blanchard & Markus, 2002). Similarly, some researchers have used SOC as a process (i.e. mediation) to explain members' interaction and commitment. Carlson, Suter, and Brown (2008) adapted SOC and introduced the psychological sense of brand community to examine the relationship between identification with group/brand and brand commitment. SOC has been used as a "catalyst or triggering device" for strengthening community (Chavis & Wandersman, 1990). Chavis and Wandersman (1990) indicated that members with a tendency to have high SOC are more likely to be involved in community development, compared to counterparts that have feelings of control through collective action. Several key studies on SOC are presented in Table 3.

Table 3. Key Literature and Findings of Selected Studies on SOC

Authors (Year), Journal/Book	Variable explored or examined	Major findings
Saraon (1974), <i>The Psychological Sense of Community: Prospect for A Community Psychology</i> , Oxford Press	A sense of belonging, responsibility, individual daily life in community level	A new community psychology with the emphasis on a sense of belonging and responsibility among community members
McMillan & Chavis (1986), <i>Journal of Community Psychology</i>	Community membership, influence, integration and fulfillment of needs, and shared emotional connection	Describe the dynamics of the sense-of-community, and identify the various elements of

Table 3. (Continued)

Authors (Year), Journal/Book	Variable explored or examined	Major findings
		building a community as well as SOC measures
Royal & Rossi (1996), <i>Journal of Community Psychology</i>	A test of SOC and new instrument development of social ties in workplace and schools	SOC in workplace and organizations are affected by their positions and experiences.
Chavis & Pretty (1999), <i>Journal of Community Psychology</i>	Individual and group-level effects of a SOC and the relationship between a residential community/identification/history and a SOC	SOC's application to explain the experience of many racial and ethnic groups
Obst, Smit, & Zinkiewicz (2001), <i>Journal of Community Psychology</i>	PSOC, identification with the community, demographic factors' role in residents of rural, regional and urban communities	Confirm SOC constructs and add a fifth dimension of Conscious Identification by suggesting identification is a separate dimension of SOC
Blanchard & Markus (2004), <i>The DATA BASE for Advances in Information Systems</i>	Members' helping behaviors, members' emotional attachment to the community and other members in a virtual community	Traditional SOC construct is confirmed in a virtual environment except relational formation is not identifiable.
Pooley, Cohen, & Pike (2005), <i>The Social Science Journal</i>	Lin between social capital and SOC within four contextual areas in Western Australia	Confirm creation of social capital through interactions, which can be measured with SOC constructs
Carlson, Suter, & Brown (2008), <i>Journal of Business Research</i>	Relationship between identification with brand/ identification with group and PSOC	Reveal that consumers perceive SOC in social and psychological brand communities, which critically influence on social interaction to build stronger relationships
Reich (2010), <i>Journal of Consumer Psychology</i>	Relationships between use of SNS and SOC (i.e., membership, influence, immersion, shared emotional connection, and an integration/fulfillment of needs) among teenagers	Find networked individualism rather than reflecting an SOC among teenagers' SNS adoption Little evidence of membership, shared influence, and bidirectional distribution of power

The Concept of Sense of Virtual Community

With the development of communication technology, the notion of place-based traditional communities has been challenged (Wellman & Gulia, 1999a). Although physical communities are still influential, experienced or relational communities selected based on individuals' needs draw more attention from community researchers (Newbrough, 1995). Indeed, whether frequent or infrequent, individuals' participation in computer-mediated interactions are dominant when "attachment" and "emotional support" are felt (Jones, 1998). A virtual

community is representative of experienced and relational community, based on individual interests and their desire to establish social bonding (Rheingold, 2000).

Blanchard (2002) developed a Sense of Virtual Community (SOVC). Based on the seminal works of Sarason (1974) and McMillan and Chavis (1986), SOVC addresses individuals' feeling of membership, identity, attachment, and belonging to a group that interacts primarily through electronic communication (Blanchard, 2007; Koh & Kim, 2003). Blanchard (2007) contended that virtual-world members feel and experience a sense of belonging more than face-to-face community members, because trust among members is presumably required to establish a virtual community and members' voluntary participation. Roberts, Smith, and Pollock (2002) examined SOVC in a chat room and found the difference between face-to-face communities and virtual communities, yet confirmed SOC's existence in virtual communities.

Although the levels of SOVC vary based on individuals' tendencies and intentions, several researchers confirm SOC's existence in a virtual world (A. Blanchard, 2004; A. L. Blanchard, 2008; A. L. Blanchard & Markus, 2002; Koh & Kim, 2003). For example, Blanchard and Markus (2002) qualitatively examined McMillan and Chavis' (1986) seminal SOC constructs and confirmed the existence of SOVC in online newsgroup communities. Later, Blanchard and Markus (2004) found no effects of the *influence* component in virtual setting because of the variety of online participants and the settings' openness. Blanchard (2007) noted that the needs of the context-specific approach to SOC in virtual communities are similar to the results of SOC studies in traditional community setting. Obst, Zinkiewicz, and Smith (2002) also validated specific contexts' impact on building individuals' feeling of belonging in an online environment by examining an interest-based international group. To reflect a virtual community's nature, Ko and Kim (2003) added a new "*immersion*" dimension in SOVC,

emphasizing online users' addictive behaviors. Similarly, Ellonen, Kosonen, and Henttonen (2007) suggest SOVC's five categories including *a feeling of membership* that is shared social identity, *mutual exchanges* between members, and *prior personal relationships* can contribute a stronger SOVC.

Although subtle differences exist in the ways of adopting and modifying the original SOC constructs among the SOVC researchers, SOVC's results confirm the SOC's existence based on social relationships and shared interests in an online environment (Balasubramanian & Mahajan, 2001; Brodsky, Loomis, & Marx, 2002). In SOVC studies, the common components constituting SOVC are *membership*, which illustrates a sense of belonging (e.g., Markus, Manville, & Agres, 2000); exchange of support among members (e.g., Preece, 2000); and shared emotional connections developed through membership (e.g., Preece, 2000). Among these core elements, a feeling of belonging plays an important role in building high SOVC (Ellonen, Kosonen, & Henttonen, 2007; Wellman & Gulia, 1999b). The findings of prior SOVC studies demonstrate the similarities between SOC and SOVC, including *exchanges of support* and *emotion- and identity-sharing* (Blanchard, 2008).

Although researchers have demonstrated the existence of SOVC, its current stage is embryonic in community research because of online communication channels' complex and novel nature (B. R. O. G. Anderson, 2006).

Sense of Brand Community in BSNs: Sense of Online Brand Community

The review of SOVC provides insight by investigating consumers' psychological property to understand brand-community participation. By addressing the importance of a sense of belonging and social relationships, SOVC can be expected to emerge among participants in virtual communities (Tsai, Cheng, & Chen, 2011). Similar to Anderson's (2006) *imagined*

communities, participants in brand community recognize the presence of others. That is, both members that actively interact with others and those that do not mentally acknowledge others' existence within the community (B. R. O. G. Anderson, 2006; Muniz Jr & O'guinn, 2001). Carlson et al. (2008) supported this point by suggesting the existence of *psychological* brand communities, which are made by consumers who like a specific brand and feel connected to each other. However, formal membership and interaction with others in a brand community are not required. In this regard, a strong feeling of community developed by a brand and the presence of like-minded consumers are observed despite their interactions in a psychological brand community (Carlson et al., 2008). Social communities' constitution is similar to existing brand community research, which includes shared consciousness, rituals and traditions, and a sense of responsibility, whereas psychological brand communities are only concerned about mutual attachment (Carlson et al., 2008; Muniz & O'Guinn, 2001). Indeed, the brand becomes a catalyst for building communal relationships or emotional connections that create SOVC, and repeated contacts with others can strengthen favorable consumer attitudes and behaviors towards a brand.

The varying degrees of imagined but experienced relationships with a brand (or an object or a place) and others are fundamental to developing a sense of belonging in online brand communities. This point is widely examined in place-based community research as well as in brand community research by examining a strong link between an object and PSOC (Colombo, Mosso, & De Piccoli, 2001; Davidson & Cotter, 1986). According to Glynn (1981), increased interests in an object help to create high SOC among individuals. Similar to the relationships between a place and a community, the relationships between a brand and its admirers are core components contributing to the development of brand community in offline- and online-settings (McAlexander, Schouten, & Koenig, 2002). Either the community is brand-focused or non-brand

focused; community formation's fundamental characteristic is mutual relationship among members (Drengner, Jahn, & Gaus, 2012). As the tendency to establish personal identity with others has played the central role in understanding behavioral and affective outcomes of online interactions, this study articulates the importance of individuals' tendency to have a relationship with others (Blanchard, 2008). This study adopts Carlson et al.'s (2008) definition of *psychological* sense of brand community to operationalize a Sense of Online Brand Community (SOBC), which is defined as *the degree to which an individual perceives relational bonds with the brand and other brand users*. The investigation of PSOC in BSN has not been done previously.

In addition to adopting Carlson et al. (2008)'s concept of psychological sense of community, this study also holistically examines possible determinants of BSN participation. In particular, support exchanges, such as information sharing about individual characteristics found to be critical in increasing SOC or SOVC, are presented. Social identity theory and social capital theory provide theoretical background and support of SOBC's dimensions. Social identity theory explains possible relationships with other brand users and the brand, and the impact of brand on building brand community (Barker, 2009). Social capital theory explains individual-level motivational factors that may lead to sharing personal experiences through SOBC (Aikat, 2009).

Social Identity Theory

Social identity theory explains various relationships among individuals, individual-objects, individuals-groups (T. J. Brown, Dacin, Pratt, & Whetten, 2006; Tajfel, 1974). It is defined as "the degree to which a member defines oneself by the same attributes that he or she believes define the organization" (Dutton, Dukerich, & Harquail, 1994). The essence of social identity theory is the individual's perception with others in an organization (Tajfel, 1974).

Social identity captures the main aspects of individual identification with community or organization in the sense that the individual acknowledges him- or herself as a member of a community or an organization, creating a sense of *belonging* to it (R.P. Bagozzi & U.M. Dholakia, 2006). Several studies have suggested that social identity involves *cognitive, affective,* and *evaluative* components, and motivates behavioral outcomes (Bergami & Bagozzi, 2000). Cognitively, social identity is expressed through self-awareness of membership in a community that motivates individuals to distinguish themselves from out-groups. In this regard, awareness of social identification through maintaining positive social relationships enhances self-esteem (R. Brown, 2000). Social identity also manifests affective and emotional involvement in a group (Ellemers, Spears, & Doosje, 2002). Individuals' affective state towards a community enhances loyalty and altruism. Feelings of attachment and belongingness to the community are often considered primary motivators for social identification (Brewer, 1991). Since social identity theory addresses positive effects of group identification or social bonding, it has been widely used in organizational research (Arnett, German, & Hunt, 2003). An evaluative component influences individuals' sense of self-worth (R. M. Lee & Robbins, 1998). Because positive evaluations of groups in which individuals are involved positively support those individuals' pride, individuals tend to be members of successful communities or organizations. The central premise of social identity theory lies in individuals' perception of belonging to a group, so this theory is often adopted to explain the effects of social interactions and group-identification on individuals' identity establishment (Hogg, 2006).

In consumer-behavior research, social identity theory has been adopted to explain two aspects of consumer behaviors. First, it serves as a theoretical foundation of an individual's identification with a group. McAlexander et al. (2002) demonstrated that a strong relationship

with the brand community develops customers' integration with a brand, a company, its products, and other customers, all of which contribute to customer loyalty. Tajfel (1974) indicated that as social identification increases, people feel more emotional connections with others, increasing interdependency on others. As a result, those feelings develop attachment and a sense of belonging. The feeling of belonging is a psychological state that grants a shared or collective representation of togetherness (Hogg & Abrams, 1988). Therefore, understanding social identity often clarifies individuals' voluntary behaviors that help brand community operations (Bergami & Bagozzi, 2000). Moreover, affective, cognitive, and evaluative feelings towards a brand or other consumers influence the creation of SOC or SOVC (A. L. Blanchard, 2008). Carlson et al. (2008) asserted that consumers may feel SOC because of either a particular brand's desirable characteristics or other consumers who purchase their desired brand. Similarly, Ma and Agarwal (2007) indicated that individuals present their self-image through pictures or postings in online brand communities, and those presentations attract others to do the same, ultimately developing solidarity.

Second, several researchers have used social identity theory in examining complex relationships among individuals and consumption objects as they simultaneously interact (Richard P. Bagozzi & Utpal M. Dholakia, 2006; Escalas & Bettman, 2003; Susan Fournier, 1998; Wallendorf & Arnould, 1988). As the importance of consumption has increased, several researchers have addressed consumer-brand relationships in various ways. For instance, Belk (1988) illustrated strong relationships between consumption objects and self-identity as consumption activities become main activities. Fournier (1998) developed consumer-brand relationships to address relationships between individuals and their brand experiences, as well as to investigate various drivers building the quality and strength of consumer-brand relationships.

Escalas and Bettman (2003) introduced “brand-extended self-construal” that suggests brands as part of self-concept. They provided a more comprehensive view of the person-brand connection by integrating different brands’ effects on a consumer’s self-concept. Although there are variances of operationalizing consumer-brand relationships, measures, and its effects on a consumer’s self-identity, they all conceptually represent various degrees of consumer identification or relationship with the brand. The outcomes of cultivating consumer-brand relationship are often measured through brand loyalty (e.g., Fournier, 1998); brand commitment (e.g., Aggarwal, 2004); and citizenship behaviors (Battacharya & Sen, 2003). Indeed, brand can develop a distinct personality and even iconic status among people, and the brand’s symbolic meaning develops more intimate relationships between objects and consumers, helping to identify SOC with others (Aaker, 1991; Hogg, 2006). Thus, perceptions towards the brand and other consumers are important clues to understanding the group’s cohesion (Postmes, Spears, Lee, & Novak, 2005).

Social Capital Theory

Social capital theory provides theoretical support illustrating individuals’ motivation to build social relationships (Bourdieu, 1986). Social capital refers to “the aggregate of the actual or potential resources which are linked to possession of a durable network of more or less institutionalized relationships of mutual acquaintance or recognition” (Bourdieu, 1986, p.248). As the term’s conceptualization indicates, social capital can be generated through social relations, such as social supports, social integration, social cohesion, and social networks, in which human experiences and wisdom of become resources (Coleman, 1988).

Bourdieu (1986) first introduced the social capital concept to understand power relations among people and the production of social class based on possession of resources. From this

perspective, social capital is considered a power source between social relations, and individuals' networks are the power's resources. Unlike the social classification-focused perspective, Coleman (1988) emphasized functional aspects of social capital that are inherent in the structure of relations between actors. The author addressed the organic nature of social capital based on mechanism of actions, relationships, and relationship outcomes. Later, similar to the original conceptualization, Putnam (1995) re-conceptualized social capital by emphasizing the economic values of possessing resources that can be social capital. Although social capital can be conceptualized in different ways, its essence is the impact of social relationships.

In consumer-behavior literature, social capital theory has been adopted to explain consumer culture theory (e.g., Arnould & Thompson, 2005); consumer networks (e.g., Cova & Cova, 2001); and community formation (e.g., McAlexander et al., 2002). In particular, social capital theory describes knowledge sharing and information exchange among online communities' participants (Ridings, Gefen, & Arinze, 2006). For instance, Rowley (2000) demonstrated that individuals visit brand communities to seek product information and to learn about others' brand experiences so that they can reduce the risk of uncertainty before purchasing products. Because of these benefits of resource exchange among individuals, consumers are motivated to interact with each other in community, creating a mechanism for developing social capital (Holt, 2004). Tilly (1984) contended that social capital mobilizes motivated and responsible attitudes toward community. In online settings, the generation of new social capital can be observed (Granovetter, 1973). As the Internet increases diverse contacts ranging from acquaintances to close friends, these frequent contacts with others can develop diverse social networks, producing social capital regardless of tie strengths (Wellman & Gulia, 1999a). The correlations between repeated contacts demonstrating active participations in community and a

strong SOC have been discussed in previous studies (Quan-Haase, Wellman, Witte, & Hampton, 2002). Thus, social capital, either organized or informal, has the potential to bond individuals and communities socially. Researchers have indicated that the outcomes of interactive and repetitive relationship exchanges with a brand help develop strong emotional bonds between users, thus influencing the development of brand community (Szmigin, Canning, & Reppel, 2005). The research model, which is based on the literature review, is presented in Figure 2.

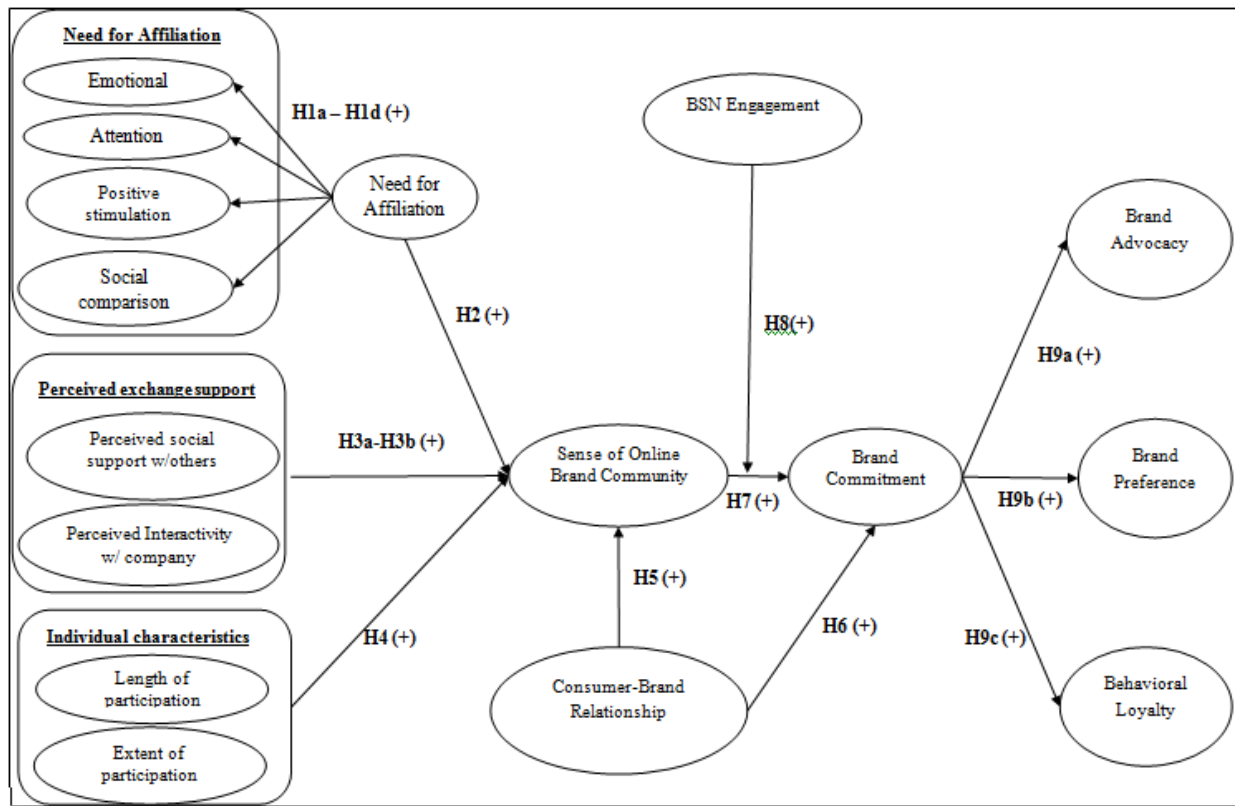


Figure 2. Research Model

HYPOTHESES DEVELOPMENT

This study investigates specific factors motivating individuals to have a sense of brand community in BSN and its association with consumers’ brand commitment. This research specifically focuses on identifying predictors related to generating SOBC in BSNs and the effects of overall consumer-brand relationships. As the purpose of this study is to explore

whether or not consumers in BSN have SOBC, the theoretical foundation is based on literature from various disciplines. While existing online community research is limited to investigating the function of brand community and tend to adopt qualitative investigation, exploring possible motivational factors in BSNs is beneficial to researchers and marketers. Through the review of previous studies, previously discussed common factors are identified: the needs for belonging (e.g., McMillan, 1996); information exchange (Adjei, Noble, & Noble, 2007); intrinsic and extrinsic rewards (Dholakia & Vianello, 2011); social influence (Algesheimer, Borle, Dholakia, & Singh, 2010); and subjective norms (Fue, Li, & Wenyu, 2009).

However, few studies have examined these variables in the context of BSNs. The existing SNS studies investigate the variety of participants and tangible benefits of participating in SNSs (e.g., Stephen & Toubia, 2010). These economic and functional approaches are limited to explaining an individual's underlying motivations. Thus, the following research hypotheses have been developed to describe and examine relationships between multi-level factors, including psychometric factors, contextual factors, individual characteristics, and SOBC in BSNs. Some researchers provide evidence of connections between consumers and environmental characteristics in online communities (Hsu & Lin, 2008; Kozinets, 1999). However, no study has examined comprehensive factors that include psychometric and individual characteristics simultaneously.

This study examines the effects of individual-level factors including both psychometric, such as need for affiliation to understand the effects of inter-personal relationships, as well as studies individual characteristics' effects. To depict the contextual factor's effects, perceived exchanged support is described to explore environmental influences on generating SOBC in BSNs. Moreover, this study examines how overall differences brand experiences with the brand

contribute to SOBC in BSNs. Lastly, instead of adopting existing approaches to explore relational outcomes based on brand loyalty (i.e., repeated purchases), this study adopts several relational outcomes, including brand commitment, brand preference, and brand advocacy that evaluate both behavioral and attitudinal intentions.

Need for Affiliation Motive

The affiliation motive is often adopted to investigate a close relationship with others (Wu & Sukoco, 2012). Murray (1938) indicated that need for affiliation represents a basic need reflecting a personal desire to draw near and to build cooperation with others. Among three basic human motives, the need for affiliation is consistently shown as a determinant of social behavior (W. Y. Wu & Sukoco, 2010). The need for affiliation is a personality trait that construes an individual's predisposition to behave corporately and as in predisposition to desire to participate in cooperative activities by seeking close relationships with others (Johnson & Johnson, 1989). Self-psychology theories clarify the need for affiliation as a developmental process shaping personality through opportunities for cooperative interaction (Davidson & Cotter, 1991). As individuals are more exposed to social settings, the satisfaction from inter-personal relationships influences the establishment of positive self-esteem and increases social skills (Veroff & Veroff, 1980). In this regard, the need for affiliation is often adopted to explain an individual's desire for social contacts or belongingness as individuals demonstrate a discrepancy in the degree to which they perceive themselves as either connected to or separated from others. Similarly, consumers with a high need for affiliation are more likely to pursue relationships with others as they seek approval from them (Atkinson & Farries, 1987). Therefore, the need for affiliation concept provides understanding of individuals' motivations, cognitions, and emotions in social settings (H. Markus & Nurius, 1986). Individuals with a high need for affiliation are more friendly,

sociable, and cooperative than those with a low need for affiliation (H. R. Markus & Kitayama, 1991). Veroff and Veroff (1980) demonstrated a positive correlation between need for affiliation and popularity-seeking behaviors.

The need for affiliation motive is operationalized with four sub-dimensions: (a) positive affect or stimulation associated with interpersonal closeness and communion, (b) attention or praise, (c) reduction of negative affect through social contact, and (d) social comparison. These four dimensions represent specific social rewards, which are relevant to desire for social contacts (C. A. Hill, 1987). The *affection* is related to liking or loving or intimate rewards individuals can have by interacting with others (Murray & McAdams, 2007). The *attention* is related to fear of rejection from others as individuals wish to receive positive reactions or attention or praise (Hill, 1996; Veroff & Veroff, 1980). The *social comparison* has been researched in relation to situational determinants of preference for social contacts (Buunk & Ybema, 1997). In order to decrease opposite or objective evaluations from others, individuals tend to find information similar to themselves (Buss & Craik, 1983). Lastly, individuals tend to reduce negative emotional experiences, which can be generated from fear-provoking or stressful situations. In order to escape from negative or unstable mental status, individuals are likely to pursue others' emotional support or sympathy (Hill, 1996). These four sub-dimensions of social motivation have been developed to measure the need for affiliation. According to Hill (1996), positive affect or stimulation related to a sense of closeness to others, attention or praise from others, social comparison, and emotional support or reduction of negative affect through social contact (p. 1009). Therefore, it can be argued that the need for consumer affiliation can be essential to establishing close relationships with others, as well as conversing with others to share ideas or brand experiences in BSN, resulting in creating SOBC. Thus, the following hypothesis is formed:

H1: The need for affiliation motive is a multidimensional latent construct positively reflected in four sub-dimensions as follow:

H1a-d: The need for affiliation motive is reflected by (a) emotional support, (b) attention, (c) positive stimulation, and (d) social comparison.

In the context of brand community, the motive for affiliation refers to the desires to make relationships with others, creating a “we-ness” feeling with other consumers of the brand (S. C. Wu & Fang, 2010). Muniz and O’Guinn (2001) confirmed that the affiliation motive exists among Harley-Davison users as they exhibit brotherhood, which then initiates collective behavioral intentions. As consumers seek similarities with other consumers that can generate a sense of belonging, individuals with a higher need for affiliation may strongly identify with the organization since they strongly desire belongingness (Markus & Kitayama, 1991; Veroff & Veroff, 1980). In contrast, individuals with a low need for affiliation have less intrinsic need to belong and are likely to perceive themselves as independent from others. They may perceive few benefits from being with others (Ashforth & Mael, 1989). Although the negative correlation between self-expression desire and the need for affiliation has been reported in traditional communities in relation to social identity, recent studies indicate a high tendency to have both desires due to the nature of online settings (Lee & Robbins, 1995). Therefore, the assumption is that a high tendency to have affiliation motives predicts a high value of having a membership or belongingness with a group, leading to SOBC.

In online settings, individuals are able to pursue both the freedom of self-expression and a feeling of belongingness in the group because the internet allows individuals to share information or experiences without any physical relationships (Richard P. Bagozzi, Bergami, Marzocchi, & Morandin, 2012). Individuals share their ideas or brand experiences and exchange their personal information via posting pictures or leaving a personal comment on other postings

(Flavian, et al., 2010). According to Dholakia et al. (2009), social identification with peer-to peer community satisfies individual members' innate need for belonging with and acceptance by other members, eventually predicting the willingness to help other community members. Burroughs and Eby (1998) discussed SOC's antecedents and consequences in an organizational setting and determine employees' need for affiliation as antecedents that build SOC. Wu and Sukoco (2010) addressed the critical role of the need for affiliation as it enhances consumers' desire to share in virtual communities. Nowell and Boyd (2010) asserted that the desire to communicate with each other through social media fulfills one of humans' core needs: a feeling of belonging. Therefore, the following is proposed:

H2: Need for affiliation is positively related to feeling a sense of online brand community.

Perceived Exchange Support

Along with the motives to identify oneself with others, perceived support in virtual communities is important because individuals' perception of support within a community critically influences the formation of community (Baym, 1998; Baym & Ledbetter, 2009; Wellman & Gulia, 1999a). Regardless of types of communities, individuals' awareness of others' helping whenever needed is a fundamental element that sustains communities' existence (Wellman & Gulia, 1999a). The notion of perceived support came from clinical psychology depicting social support's effects on mental health (Shumaker & Brownell, 1984). Lin (1986) defined social support as "perceived or actual instrumental and/or expressive provisions supplied by the community, social networks, and confiding partners" (p.18). In terms of types of support, functional support is perceived exchange support concerned with the nature of support received while structural support is linked to a network's type and size (Cohen & Syme, 1985). Although sources of support can be varied from a personal one-to-one relationship to cultural contexts of

social support, psychology researchers agree that individual's *perception* of support is critical to establishing interpersonal relationships (B. R. Sarason, Sarason, & Pierce, 1990). Since perception of support is closely related to an individual's happiness, it is frequently adopted in organizational research to investigate employee satisfaction (Wayne, Shore, & Liden, 1997). Although boundaries of social and organizational support vary, both concepts are designed to explore intrinsic and extrinsic needs for interactions (Wellman & Gulia, 1999a). Blau (1964) proposed that frequency; reciprocity norm; emotional support; and extrinsic supports, such as monetary rewards, influence individuals' well-being. In particular, emotional and social support are increased when individuals observe socio-emotional supports among people in community settings (Zimet, Dahlem, Zimet, & Farley, 1988). Moreover, experiences of receiving support can enhance the association between organizational membership and individuals, as well as strengthen positive emotional bonds to the organization (Eisenberger, Huntington, Hutchison, & Sowa, 1986).

In the SOC literature, the relationship between exchanges of support and SOC has been addressed. Royal and Rossi (1996) found that perceived support in the organization motivate students to have SOC in a school setting. Wellman and Gulia (1999) also demonstrated that the acknowledgement of available supports when needed among members increases the community membership, enhancing SOC. As such, Schuster (1998) confirmed that the process of exchange of support leads to SOC in a writers' group. Blanchard (2002) indicated positive effects of sharing information and emotional supports in a virtual group, which in turn developing SOVC. As a computer-mediated environment is regarded as less personal, and weakened social presence is common compared to face-to-face communication, the awareness of support from others and organizations is essential to help members have SOC (Rovai, 2002). Similarly, Blanchard and

Markus (2004) demonstrated that giving and receiving informational and socio-emotional supports help create feelings of belonging in virtual communities. Jones (1997) also contended that support exchanges help enhance a feeling of membership due to availability of texts and picture sharing in virtual communities, which participants can feel as social space (Jones, 1997). Indeed, the benefits of acquiring needed support, including information in an online environment, are strongly related to individuals' motivation to participate in the community (Burnett, 2000).

In brand-community literature, exchange of resources, including brand information and consumer experiences, are recognized as critical factors motivating individuals to build relationships with others within a brand community (Algesheimer et al., 2005). De Wulf, Odekerken-Schroder, and Iacobucci (2001) proposed that acquiring needed support from other members or company officials in online brand communities enhances relationships with others. Social capital theory explains the social aspect of support-exchange behaviors observed among group members (Blanchard, 2008). Wasko and Faraj (2005) argued that resources created by relational, structural, and cognitive capital facilitate participation and knowledge exchange among members in online communities. Wellman and Guilia (1999) asserted that the *public* exchange of support among members may increase members' perceptions of the group's supportive image despite only active members having few actual support exchanges. Thus, exchanged supports in public places such as online brand communities are positively related to SOC (A. L. Blanchard, 2008).

The concept of perceived interactivity is often implemented to access the extent of exchanged support (Wietz & Ruyter, 2007). The term *interactivity* has been widely used in different disciplines to investigate attributes of interpersonal communications (Chen, Griffith, & Shen, 2005). Perceived interactivity indicates the degree to which users perceive interaction as

two-way, controllable, and responsive to their actions. Wu (2006) defined *perceived interactivity* as “a psychological state experienced by a site user during his or her interaction with the website” (p.91). Examining the perceptions of consumers reveals their cognitive process when interacting with others and a certain website (G. Wu, 2006).

Perceived interactivity’s core dimensions are perceived user control, two-way communication, and perceived responsiveness (S. J. McMillan & Hwang, 2002). User-control focuses on direction of communication, which is the center of control, including human-to-human and human-to-computer interactions. Two-way communication is characterized as mutual discourse and the capability of providing feedback. Perceived responsiveness addresses the speed of message delivery and of message processing (Chen, Griffith, & Shen, 2005). Several studies have examined the dimensions of perceived interactivity and have confirmed the relationship between it and consumers’ favorable behaviors in the community (S. J. McMillan & Hwang, 2002). Similarly, Bhattacharya, Rao, and Glynn (1995) suggested a positive association between the quantity or quality of interactions and SOC. Dawson (2006) also contended that exchanging dialogues and posting messages facilitate developing a sense of community regardless of temporal and spatial constraints because members’ needs are achieved through reciprocal relationships. Likewise, Chavis, Hogg, McMillan, and Wandersman (1986) discussed interactions’ impact on developing SOC in neighborhood setting.

In the context of BSN, capability of interacting with other consumers and the company is increased due to SNSs’ open nature (Baym & Ledbetter, 2009). Although SNSs’ openness gives consumers more opportunities to navigate needed information or support as well as to interact with others, there is little responsibility among members to actively participate in BSN activities. Therefore, the perception of possible emotional and functional supports as well as increased

interactions among participants may lead to developing high SOC (Aikat, 2009). The benefits of social media are in peer-to-peer sharing and obtaining needed information (Dholakia et al., 2009; Hsu et al., 2007). For example, people discover the information of business or personal contacts by navigating relationship links among people (Tosh & Werdmuller, 2004). Consumers seek possible company resources and other consumers' experiences by visiting different BSNs. Consequently, this study assumes that a consumer's perception of exchange support in BSN is expected to predict positive influences on increasing SOBC. That is, the awareness of others' presence and of company officials that can provide what consumers need in BSNs positively impact the development of SOBC in BSNs. A logical assumption is that perceived supports, including in BSNs, are likely to establish strong relationships with consumers and the collective whole (Eysenbach, 2008). Also, perceived interactivity with the company strongly affects establishing SOBC. Accordingly, the following hypotheses are developed:

H3: Consumers' perceived exchange support will have a positive effect on creating sense of brand community in BSNs

H3a: Consumer's perceived social support in BSN will have a positive effect on creating sense of online brand community.

H3b: Consumer's perceived interactivity in BSN will have a positive effect on creating sense of online brand community.

Individual Characteristics

A strong association between individuals' demographic characteristics and SOC has been noted in community psychology research. As individuals' perception of similarities to others increases, a sense of belonging and positive feeling towards others are created (S. B. Sarason, 1974). Sarason (1974) proposed that a strong attachment among people may occur based on similar experiences and similar personal characteristics, such as where they live, where they work, where they go to school, or with which groups they belong to. Several researchers have

also shown close connections between individual characteristics (such as age, education levels, income, and lengths of residency) and SOC. For example, Wandersman and Giamartino (1980) asserted that individual characteristics, such as income, gender, and education level, influence the development of PSOC. As SOC's development drives individuals to serve as the entity of the groups, the PSOC of individuals is likely to be influenced by their characteristics (Brodsky et al., 1999). That is, SOC is conceptualized to capture the relationships individuals perceive between themselves and a social setting; an individual's SOC is likely to be influenced by the characteristics of not only the individual but also the social setting (McMillan & Chavis, 1986). Krohn, Naughton, Skinner, Becker, and Lauer (1986) also demonstrated that the relationship between individual characteristics, including demographic variables (e.g., social status, age, life cycle, and length of residency), and community participation is related to the level of community attachment. Hill (1996) also found that varying degrees of demographic variables, such as age, length of residency, income, presence of children in the home, education, race, and gender, are associated with creating positive SOC. Because having similarities with others certainly encourages individuals to have social relationships, demographic variables have been presented as determinants of SOC or PSOC in community-psychology literature.

In particular, individuals' length of residency has been widely as a critical predictor of creating SOC (Obst et al., 2002; McMillan, 1996). McMillan and Chavis (1986), for example, reviewed many studies confirming a connection between SOC and active, purposeful participation in community problem-solving (Bachrach & Zautra, 1985; Chavis, 1983; Florin & Wandersman, 1984; Wandersman & Giamartino, 1980). Jorgensen, Jamieson, and Martin (2010) confirmed the length of residency's significant influence on individual's perception of SOC. Similar community psychologists' contention, several consumer-behavior researchers have

indicated the relationship between consumers' frequency of participation and interaction in the online community and their development of social or emotional relationships (Bagozzi & Dholakia, 2006; Hsu, Ju, Yen, & Chang, 2007). Quan-Hasse, Wellman, and Witte (2002) confirmed that online contacts supplement face-to-face contact and lead to a greater sense of online community. They also found that in routine participation practices in an online environment, social capital has been augmented, leading to active participation among members. The importance of both length of participation and the extent to which members actively interact with other members in the community has been examined in previous studies (Wang & Fesenmaier, 2004). As consumers participate in the online community, they may develop other relationships (Hsu et al., 2007). Wand and Fesenmaier (2004) contended that the participation of members in the community reflects their commitment as well as the community's prosperity. They also indicate the need to understand "free riders," who passively observe other members' activities and search for information because of their great potential to contribute actively as well as to have a sense of belonging in the community. Therefore, it is possible to assume a positive relationship between individual's characteristics, such as length and extent of community participation in BSNs, and SOBC. Thus, the following is proposed:

H4: Individual characteristics in BSN will have a positive influence on generating sense of online brand community.

Consumer-Brand Relationship

Relationship marketing has extensively addressed emotion-laden and target-specific bonds between a person and a specific object or brand (Dwyer, Schurr, & Oh, 1987). This perspective emphasizes the critical role of affective and emotion-laden relationships in understanding customer loyalty. Fournier (1998) defined *consumer-brand relations* as "the tie

between a persona and a brand that is voluntary or is enforced interdependently between the persona and the brand” (p.345). Indeed, a strongly established relationship between consumers and the brand is expected to increase marketing productivity through the retention of customers and their active involvement in the marketing process (Aggarwal, 2004; S. Fournier, 2005). The advantages of establishing successful relationships include reduced marketing costs through customer retentions, easy access to consumers, additional acquisition through existing consumers, brand equity, and eventually increased profits (Winter, 2000).

In consumer-behavior literature, several researchers have investigated the possible impact of consumer-brand relationships. For instance, Fournier (1998) developed the measures of brand relationship quality (BRQ) to examine the existence of love/passion, self-connection, commitment, inter-dependency, and brand-partnership quality. Bergamin and Bagozzi (2000) explained that brand identification based on cognitive process emerges as consumers overlap their self-schema and the schema they hold for another target object. As the perception of overlap with the brand (i.e., identification with the brand) increases, individuals are likely to have emotional bonds with brands, which develop shared emotion with others (Carlson et al., 2008).

The social identity theory explains the impact of social relationships as a way of understanding an individual’s identity (Ashforth & Mael, 1989). By categorizing individuals and others into groups (e.g., a member of Apple Newton community), a community serves as a self-defining role (Hogg, 2006). Glynn (1986) found a strong link among identification with others, place, and SOC in the context of neighborhood community setting. In examining SOC and identification measures, Obst et al. (2002) indicated that identification with others is a significant predictor of SOC. The identification or connection between the brand and consumers often

depicts consumers' participation in brand-community research (McAlexander, Kim, & Roberts, 2003; McAlexander, et al., 2002). In brand-community and consumption sub-culture literature, consumers identify themselves through the brand and develop the greater feeling of belonging with other consumers. For instance, McAlexander et al. (2002) demonstrated that an individual's relationship with a specific brand can be a medium to establish relationships with other brand users. Thus, the relationships among consumers as well as the brand serve as a catalyst in SOBC by attracting consumers to have continuous relationships with others (Carlson, et al., 2008; P. Obst, Zinkiewicz, & Smith, 2002). That is, as the perception of self and the brand overlap (i.e., high self-brand relationship) increases, individuals tend to perceive SOBC.

Similar to the consumer-brand identification approach, brand engagement in self-concept (BESC) addresses the connection between consumers and their favorite brands (Escalas & Bettman, 2003). Compared to respective measurements of consumers' connection to a particular brand, BESC is a generalized tendency to include brands as part of self-concept. BESC's essence is in a comprehensive view of a person-brand connection by suggesting that multiple brands can be integrated into a consumer's self-concept. Therefore, the notion of BESC gives a more holistic explanation of consumer-brand connection and its effects on a consumer's behavioral intentions (Sprott, Czellar, & Spangenberg, 2009). Although different approaches exist for operationalizing and measuring consumer-brand relationship, it is well agreed that consumer-brand relationships exist (Aggarwal, 2004). Therefore, a plausible assumption is that the greater the consumer-brand relationship (i.e., higher BESC), the greater the feeling of connection with others in BSN as relationships with the brand increase SOBC (Carlson et al., 2008). Thus, the following is proposed:

H5: Consumers' perceived consumer-brand relationship will have a positive effect on building sense of online brand community.

Consumer-Brand Relationship and Brand Commitment

Commitment has been addressed to understand the quality of relationship and its value in previous studies (Morgan & Hunt, 1994; Coulter, Price, & Feick, 2003). Storbacka, Strandvik, and Grönroos (1994) contended that a consumer's interest in creating relationships influences the consumer's level of commitment to the relationships. Bergami and Bagozzi (2000) also indicated a strong link between identification and identifier's commitment in organizational, educational, and cultural contexts. Similarly, Bhattacharya and Sen (2003) asserted that a strong tendency to identify with a brand leads to long-term brand commitment. Brand-consumer identification means that consumers and the brand simultaneously interact with each other through consumption activities and that those interactions often affect self-identification with the brand. Moreover, recognition of similarities between a brand and a customer helps to encourage them to support the brand. Also, Hess and Story (2005) suggested that a personal relationship with a brand, which is likely to reflect personal commitment, yields a willingness to pay more for the brand's products or service with which customers are engaged. According to McAlexander et al. (2002), a strong relationship with a brand enhances individual customers' integration with a brand, a company, its products, and other customers enhancing customers' behavioral intentions. Those researchers also illustrated that the impact of deep attachment among consumers in the community and brand, in turn, create affective commitment. Bolton, Lemon, and Verhoef (2004) proposed that relationship quality, which is based on customers' assessment of the strength of the relationship with a firm, is a strong predictor of frequency of purchases and word-of-mouth brand promotion. In this sense, a logical assumption is that the relationship between the brand

and consumers positively influence developing favorable and positive behaviors towards the brand. Therefore, the following hypothesis is developed:

H6: Consumers' perceived consumer-brand relationship will have a positive impact on brand commitment.

Sense-Of-Online Brand Community

It is well accepted that members of highly immersed social sub-groups (e.g., brand communities) have higher psychological commitment than members of less immersed sub-groups (Urban, 2005). Previous research suggests that commitment is a critical predictor of building a long-term relationship (Morgan & Hunt, 1994). For example, Fisher and Sonn (1999) contended that having an SOC encourages people to be actively engaged in their communities, ultimately generating positive attitude. Newbrough (1995) also identified the association between a positive sense of community and community-level outcomes. Carlson et al. (2008) adopted SOC to investigate online brand-community formation and an individual's commitment to the brand in the absence of any social interactions. Indeed, the establishment of *online* brand community highly depends on the association with the brand and consumers rather than on consumer-consumer relationships (Cova & Pace, 2006). For instance, Cova and Pace (2006) illustrated enthusiastic behaviors of Nutella consumers in the MyNutella community by demonstrating their affective attitudes towards the brand. Given the notion that SOBC highlights feelings of sense of community in BSN, the SOBC is expected to describe affective ties and feelings of members, which develop "we-ness" (A. L. Blanchard, 2008). Such togetherness or collective intentions are developed based on shared activity around the brand, which involves exchange supports and members' SOC (Gilbert, Karahalios, & Sandvig, 2008). Social identity theory elucidates cognitive, evaluative, and emotional attachment between members and a social

group. In particular, a sense of emotional connection with the group is often addressed, resulting in affective commitment (Bergamin & Bagozzi, 2000).

Carlson et al. (2008) confirmed that SOC plays a central role in increasing an individual's commitment to a particular brand. Kim, Choi, Qualls, and Han (2008) also suggested that companies foster SOC to build loyalty and long-term relationships by satisfying consumers' needs and providing needed resources. Likewise, Jang, Finan, Ko, Koh, and Kim (2008) contended that members' belonging in a community helps increase trust toward community and strengthens commitment. Based on previous literature, a plausible assumption is that the greater the SOBC, the greater the commitment to the brand because individuals with higher SOBC tend to exhibit positive behavioral outcomes (Cheung & Lee, 2012). Thus, the following is proposed:

H7: Sense-of-online brand community will have a positive effect on brand commitment.

Moderating Role of Community Engagement in BSN

Engagement is employed widely in advertising, education, psychology, and marketing to describe sustained attention to two-way communications and relationship; yet marketing researchers have focused on engagement (Calder, Malthouse, & Schaedel, 2009). Engagement refers to "a consumer's ongoing attention to an object of consumption such as a website or a brand" (Scholer & Higgins, 2009, p.102). In the literature, customer or consumer engagement has been adopted to investigate individuals' connection to a brand, advertisement or communication medium (Lee et al., 2011). Since the concept describes consumers' attention to or interest in something, it shares some commonality with other concepts, such as involvement and interactivity (Mollen & Wilson, 2010). According to Thomson, MacInnis, and Park (2005), involvement is a state of mental readiness that typically influences providing cognitive resources to a consumption object, whereas engagement articulates an active relationship between

consumers and a product or a brand. Accordingly, engagement with an object is created based on feelings for that object (Scott & Craig-Lees, 2010). For example, those who are “engaged” with a brand or a website have a certain connection with it and probably visit it often (Mollen & Wilson, 2010). In this sense, engagement in most of the previous studies presents engagement’s consequences rather than engagement itself (Van Doorn et al., 2010). However, Wang (2006) asserted that engagement is an antecedent leading to practice, affect, and responses to an object. Indeed, engagement’s consequences can be achieved through *experiencing* something, which involves emotional bonding (Marci, 2006). Similarly, Higgins (2006) identified the nature of engagement by incorporating cognitive, affective, and behavioral factors. At the cognitive level, individuals aim to achieve goals and to invest their resources in learning. Affective attitude towards a target can be developed through satisfying experiential values, such as having a sense of belonging and encouraging individuals to engage in community activities (Thomson et al., 2005). Therefore, the greater consumers are motivated to be engaged, the stronger the bonding is with the brand.

Social capital theory explicates pro-social behaviors, including collective actions and community engagement, as members seek resources embedded in a social structure (Lin, 1986). While social capital theory depicts the motivation of individuals actively participating in community and their purposeful behaviors to build social relationships, social identity theory provides insight into understanding consumers’ engagement in community by elucidating group identity’s positive effects on individuals’ mental health (Tajfel, 1982). Having a sense of belonging helps individuals to achieve group identity and to positively evaluate the community, leading to long-term relationships (Pretty & McCarthy, 1991).

In the community literature, researchers have identified positive relationships between SOC and affective engagement (Eisenberger, et al., 1986). According to Bucker (1988), a person that experiences a sense of community within a particular context may develop SOC that motivates individuals to engage in community activities. For example, Chavis and Wandersman (1990) identified the positive relationship between SOC and community-engagement behaviors. Based on extensive review of previous studies (e.g., Bachrach & Zautra, 1985; Chavis, 1983; Florin & Wandersman, 1984; Wandersman & Giamartino, 1980 as cited in McMillan & Chavis, 1986), McMillan and Chavis (1986) also suggested a connection between a positive sense of community and active, purposeful involvement in community-oriented tasks. Community engagement's effects, which imply members' willingness to stay committed which, include positive behavioral intentions, such as membership- continuance intentions, community recommendation, and continuity of community participation (Algeshemier et al., 2005). Likewise, Higgins (2006) confirmed that strength of engagement can contribute to enhancing individuals' emotional experience and their positive decision making. Thus, a reasonable assumption is that individuals with a high tendency to engage in community tend to have stronger emotional connection with others, resulting in positive long-term relationships. As such, the following hypothesis is developed:

H8: The higher the consumer engagement in BSN activities, the higher the positive relationship is between sense of online brand community and brand commitment.

Relational Outcomes

Drawing upon relationship marketing, commitment plays a critical role in measuring relationship quality by capturing attitudinal stability's strength within the relationship (Fournier, 1998). Instead of measuring a share-based loyalty framework, meaning-based approaches have

emerged that address context-specific, evolving, and consumer-relevant bonding with the brand (Fournier & Yao, 1998).

Fournier (1998) contended that a relational-based investigation of customer loyalty provides an affective and emotion-laden understanding of customer relationships. Originally, the concept of commitment was researched in social exchange (Cook, Emerson, Gillmore, & Yamagishi, 1983); marriage satisfaction (Sabatelli & Cecil-Pigo, 1985); and organizational relationship and trust (Allen & Meyer, 1990). Morgan and Hunt (1994) described the relationship commitment as “an exchange partner believing that an ongoing relationship with another and important as to warrant maximum efforts at maintaining it; that is, the committed party believes the relationship is worth working on to ensure that it endures indefinitely” (p. 23). According to Morgan and Hunt (1994), commitment is an essential element to maintain a sustainable relationship and is developed based on community members’ evaluation of relationships with other members. Parasuraman, Berry, and Zeithaml (1991) also suggested the mutual commitment among members as a foundation of customer loyalty.

Allen and Meyer (1990) introduced a three-component model of commitment: *affective*, *continuance*, and *normative*. Affective commitment indicates customers’ feelings about maintaining a relationship with a company toward which they have a positive and enduring attitude (Fullerton, 2005b). Explicating shared values, identification, and attachment with a company, affective commitment has been widely adopted in relational-marketing literature to explain emotion-laden customer relationships (Bansal, Irving, & Taylor, 2004; Fullerton, 2005a). Affective commitment’s central premise is that consumers enjoy doing business with a partner to whom they are affectively committed (Fullerton, 2011). This affective component explains friendship-like relationships between a customer and a company, often represented as customer-

brand relationship (Coulter, Price, & Feick, 2003). Continuance commitment explains the tendency to remain in a relationship due to few alternatives, side-bets, high switching costs and difficulties of terminating the relationship (Fullerton, 2005a). The continuance commitment elucidates consumer-brand relationships' persistence as consumers attach to the brand by reflecting a consumer's personality (Holt, 2003). Normative commitment is similar to affective commitment as it clarifies individuals' voluntary involvement in organizational activities based on positive feelings (Allen & Myer, 1990).

In the marketing and consumer-behavior literature, the affective commitment is often addressed as a key indicator of consumers' intention to continue relationships with various partners (Thorbjørnsen, Supphellen, Nysveen, & Egil, 2002). As marketers pay more attention to creating and maintaining a successful long-term relationship, commitment has received significant attention (Moorman, Zaltman, & Deshpande, 1992). While most studies have focused on functional and economic benefits, such as repeat purchases to measure long-term relationships, researchers have demonstrated little understanding of meaningful long-term customer relationships, such as commitment (Dick & Basu, 1994; Susan Fournier, 1998). Customer commitment is considered a central determinant of relationships because of its psychological force that connects consumers with a company (Bansal et al., 2004). Investigating this relational outcome provides explanations for consumers' context-specific relationships with a brand and depicts meaningful relationships (Carlson et al., 2008; S. Fournier & Lee, 2009). Several studies have examined a link between affective commitment and customer retentions (i.e., repurchase intentions) and have confirmed a uniformly positive, strong relationship between two constructs (Bansal et al., 2004; Morgan & Hunt, 1994). For example, Bansal et al. (2004) examined continuance and affective commitment's effects on repurchase intention and

find weak, but positive effects of commitment on customer retention. Carlson et al. (2008) discussed the strong positive relationship between commitment and several attitudinal and behavioral outcomes, including brand preference (i.e., choose the brand over a competitor even if it costs more), brand advocacy, and tendency to attend brand events (i.e., celebrating brand history with fellow consumers).

Despite the increasing attention on the relationship-based approach to measuring brand loyalty, some researchers still assert that actual behaviors, such as purchases, provide some insight (Kumar & Shah, 2004). Historically, brand loyalty refers to “a biased behavioral response expressed over time of some decision-making unit with respect to one or more alternative brands out of a set of such brands and is a function of evaluative process” (Jacoby & Chestnut, 1978, p. 307). Behavioral intentions include consumers’ repeat purchases, word-of-mouth intention, and comparing the amount of spending between a selected retailer and other retailers (i.e., competitors). Therefore, this study also examines behavioral loyalty as an outcome of affective commitment. Behavioral loyalty is as an indicator to retailers of profitable relationships (S. Fournier & Yao, 1997).

In addition, this study also intends to share positive word-of-mouth to elucidate potential outcomes of customer’s affective commitment (Fullerton, 2003). Fullerton (2003) suggested a strong and positive effect of affective commitment on the willingness of consumers to act as references for their relational partners. That is, consumers who are psychologically and emotionally attached with the brand within a community tend to recommend the brand to other consumers. Moreover, the effects of WOM in SNSs are frequently examined because of its easy accessibility. For instance, Keller (2007) discussed active sharing of promotional messages among participants in SNSs. Kozinets, De Valck, Wojnick, and Wilner (2010) also identified

WOM's effects in advanced interactive communication channels, such as social media, increase as the opportunities for multiple connections among people increase. This point has been widely presented in industry reports as marketers recognize WOM's impact among consumers (Lacey & Morgan, 2008). Particularly, WOM referrals are expected to be observed frequently in advanced communication channels, such as SNSs, as social capital becomes a critical factor motivating consumers' participation in SNSs (Binns, 2011). Based on the discussion above, a plausible assumption is that brand commitment will influence relational and behavioral outcomes, the following are proposed

H9: Brand commitment will have positive effects on relational and behavioral outcomes.

H9a: Brand commitment will have a positive effect on sharing positive brand advocacy (i.e., positive word-of-mouth).

H9b: Brand commitment will have a positive effect on brand preference.

H9c: Brand commitment will have a positive effect on behavioral loyalty.

CHAPTER III: METHODS

This chapter includes four sections. The first section presents the research model and operationalization of constructs that are employed in this study. The next section describes the research design used to gather data and to test the hypothesized relationships. The third section explains analysis plan such as sampling method, data collection procedures, survey description, and instrument development. The last section describes the result of preliminary analyses to evaluate modified and developed constructs in the current study.

Research Model

As shown in Figure 2, the current study examines the conceptual framework and proposed relationships between determinants of individual's motivation to participate in BSNs and their feeling of belonging (i.e., SOBC) within BSNs. Further, we test possible outcomes of building successful relationship with consumers through BSNs. The suggested conceptual model pursues to examine determinants that lead individuals' feeling of belonging to the BSN based on twofold: individual motives to engage in a community and the effects of overall consumer-brand relationships. Since the main focus of this study not only examines determinants of creating SOBC but also testing the relationships among those factors to generate affective connections in BSNs, we specifically adopt relational outcomes to validate the critical role of affective and emotion-laden relationships (Sheth & Parvatiyar, 1995).

In this research model, direct relationship between multi-level factors including need for affiliation motives, perceived exchange support, individual characteristics and SOBC are examined. A direct relationship between general brand relationship which elucidates consumers' brand connection in understanding her-or his-self and SOBC is addressed. The proposed model suggests that an indirect relationship of SOBC and relational outcomes may exist through that of

brand commitment. The brand commitment construct is employed as a mediator between relational antecedents and outcomes (Fullerton, 2005a). Lastly, consumers' engagement in BSNs is conceptualized to have a moderating effect on the direct relationship between SOBC and brand commitment. The research model is presented with the proposed hypothesized relationships in Figure 3 and Table 4 demonstrates the operational definition of each construct.

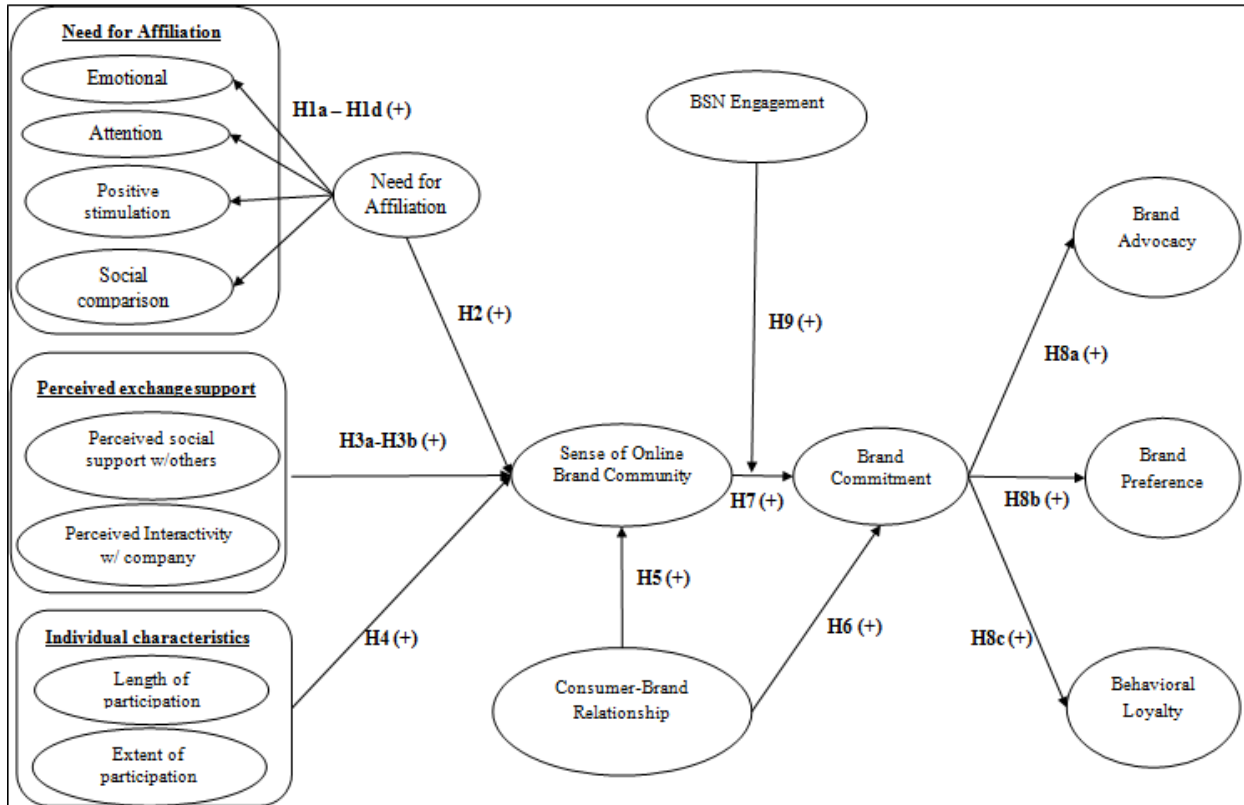


Figure 3. Research Model

Table 4. Operational Definitions of the Concepts and Constructs

Constructs		Source	Operationalized Definition
Need for affiliation		Murray (1938)	The tendency to receive gratification from harmonious relationships and from a sense of communion.
Perceived exchange support	Perceived social support	Cohen & Syme (1985)	Individuals' perception of support, which is concerned with the nature of the support received in BSN.
	Perceived interactivity	Wu (2006)	The degree to which the user perceives that the interaction is two-way, controllable, and responsive to their actions.

Table 4. (Continued)

Constructs		Source	Operationalized Definition
Individual characteristics	Length of participation in BSN	Wang & Fesenmaier (2004)	The amount of time members participate in BSNs.
	Extent of participation		The amount of time members spent in BSNs per week.
Consumer-brand relationship		Sprott, et al. (2009)	An individual difference representing consumers' propensity to include important brands as part of how they view themselves.
Sense of online brand community (SOBC)		Blanchard (2007)	The degree to which an individual perceives relational bonds with the brand and other brand users in BSNs.
Brand Commitment		Dwyer, et al. (1987)	An enduring desire to maintain valued relationships between two parties.
Relational outcomes	Brand Advocacy	Zeithaml, et al., (1996)	A customer's likelihood to share favorable word-of-mouth (WOM) with others.
	Brand preference	Cobb-Walgren, et al. (1995)	A customer's preference under assumption of equality in price and availability.
	Behavioral Loyalty	Jacoby & Chestnut(1978)	Enduring relationship outcome which is demonstrated by intention to repurchase from a same company and response to marketing campaigns.
BSN engagement		Higgins (2006)	A motivational state is to be involved, occupied, and interested in BSN activities.

Hypothesized Relationships

Specific hypotheses regarding to the relationships among predictors of sense of brand community, consumer-brand relationships, and relational outcomes which include attitudinal and behavioral loyalty are stated below:

H1: The need for affiliation motive is a multidimensional latent construct positively reflected in four sub-dimensions as follow:

H1a-d: The need for affiliation motive is reflected by four constructs such as (a) emotional support, (b) attention, (c) positive stimulation, and (d) social comparison.

H2: Need for affiliation is positively related to feeling of sense of online brand community.

H3: Consumers' perceived exchange support will have a positive effect on creating sense of brand community in BSNs.

H3a: Consumer's perceived social support in BSN will have a positive effect on creating sense of online brand community.

H3b: Consumer's perceived interactivity in BSN will have a positive effect on creating sense of online brand community.

H4: Individual characteristics in BSN will have a positive influence on generating sense of online brand community.

H5: Consumers' perceived consumer-brand relationship will have a positive effect on building sense of online brand community.

H6: Consumers' perceived consumer-brand relationship will have a positive impact on brand commitment.

H7: Sense-of-online brand community will have a positive effect on brand commitment.

H8: Higher consumer engagement in BSN activities, the higher positive relationship between sense of online brand community and brand commitment.

H9: Brand commitment will have positive effects on relational and behavioral outcomes.

H9a: Brand commitment will have a positive effect on sharing positive brand advocacy (i.e., positive word-of-mouth).

H9b: Brand commitment will have a positive effect on brand preference.

H9c: Brand commitment will have a positive effect on behavioral loyalty.

RESEARCH DESIGN

This study employed a self-administered web-based survey to collect the data. Since the study setting was in online social networking sites, the online survey was appropriate. Online surveys provided several advantages including reduction of costs, time, and speed compared to traditional postal surveys (J. R. Evans & Mathur, 2005). Moreover, online surveys might diminish incidence of missing demographic information (McDonald & Adam, 2003).

Conducting an online survey also allowed direct inputs of respondents' choices, so researchers could avoid time-intensive manual entry of survey responses. For the respondents, online survey allowed a self-completion at their convenience, which decreased incomplete and declined responses (Churchill & Iacobucci, 2009).

Research Setting

As briefly discussed in Chapter 1, the main focus of this study is on elucidating the consumer behaviors in the particular social networking site, Facebook (www.facebook.com). Facebook is a representative example of social networking sites based on its users (Kirkpatrick, 2011). In particular, Facebook Pages enable users to connect each other and to allow users to build a page for several purposes to follow artists, public figure, brands, local business, place, company, organization, or institution (Facebook, 2012). Although there are various purposes of creating a Page, we select brand pages which are types of company-generated online brand community for the purpose of this study. A brand Page is basically created by a company within Facebook website and similar to individual's personal web-page. A brand Page also offers a high level of homogenous members in terms of participation motivation as they should click "Like" button to write a comment on the company wall.

Sampling Frame

Since this study aims to explore a new form of brand community, brand social networking, the population of analysis is limited individuals who have participated (i.e., liked) in at least one brand Page on Facebook during the past six months. A time frame of six months is selected to investigate consumers' participations and their interactions in BSN because average consumers may not visit a particular brand Page frequently as they visit personal or friends' profile on Facebook. Thus, it is appropriate to wait until consumer interactions are saturated.

The population of this study is drawn from the list of consumer panel members managed by a market research company specializing in online consumer surveys, C&T Marketing Group. The C&T Marketing Group possesses a database of approximately 1.5 million members segmented on diverse characteristics that include demographics, consumer behaviors, or

shopping patterns. Among the panel members, the target respondents of this study are adult consumers who are 18 or older and who have participated in at least one Facebook brand Page. The firm provides random sampling of members within the target group and ensures the quality of data through monitoring the repeated members' participations in a same survey, as well as removing professional survey takers based on their profile. The panels are profiled based on more than five hundred unique attributes. An expected sample size of this study will be between 500 and 600.

Data Collection

Data was collected from the C&T Marketing Group consumer panel in August 2012. After the researcher set up the final version of survey at a survey platform (e.g., Zoomerang.com), the firm launched the online survey. Conventional e-mail invitations were sent out to consumer panel from the C&T Marketing Group to request participation of survey. The firm asked consumer panel's to connect PayPal account for the purpose of validating and screening appropriate panel participation in addition to provide small monetary incentives after completion of the survey.

Procedures

At the beginning of the main survey, the introductory paragraphs which indicated contact information of both the researcher and the C&T marketing group were presented. After the introductory section, two screening questions were given to identify eligible respondents among participants of the survey. The first screening question asked about a selection of social media platforms where they had participated in the time of the survey. Based on the recent report, five most popular social media platforms were selected for the first screening question (Wasserman, 2012). Since this study particularly selected Facebook for the sake of analysis, those respondents

who chose other social media platforms (e.g., Twitter, MySpace, LinkedIn, Google+, etc.) were prevented from continuing the survey. In the second screening question, respondents were asked whether they participate in any brand Page or had participated in any activities of sharing, browsing, or disseminating the information about a certain brand. The activities included clicking “Like” button, browsing any information from a Facebook brand page that they participated in previously, uploading pictures, post messages, sharing personal experiences, re-distributing the brand Page information in personal wall, etc. Those who qualified all two screening questions were led to take the main survey.

The remaining survey included questions regarding individual motives, characteristics, perception towards contextual setting, a sense of community in the BSN, brand commitment, consumer engagement, attitudinal, and behavioral intentions along with general demographic information. The survey instrument contained twenty four total items for need for affiliation motive, three items for perceived exchange support, three items for perceived interactivity, two items for individual characteristics, eight items for consumer-brand relationship, four items for brand commitment, five items for brand advocacy, four items for brand preference, three items for behavioral loyalty, and four items for consumer engagement intention. The need for affiliation motives included four sub-dimensions which involved five items for emotional support, five items for attention, nine items for positive stimulation, and five items for social comparison. The survey also contained six demographic questions. The online survey was expected to take approximately fifteen to twenty minutes to complete.

INSTRUMENT DEVELOPMENT

The measurement items employed in the current study are obtained and modified to be tailored to the BSN context. The final measurement items were modified based on the following

four steps: prior literature search, a content validity test, a pilot-test, and final version. The questionnaire was composed of five sections: (1) multi-level predictors including psychometric, contextual, and individual characteristic related questions, (2) sense of online brand community, (3) relationship outcomes, (4) behavioral and attitudinal behaviors, and (5) demographics.

Survey Instrument Development

Initial item generation. An initial listing of relevant items was developed from the review of previous literature in community psychology, sociology, psychology, consumer-brand relationship, relationship marketing, and brand community. In order to correspond with the BSN context, most measurement items were modified to include “[XYZ brand] Page” which indicated a selected brand Page by the respondents. All initial items from the literature review were listed in the following table (Table 5). In addition, sources used in the generation of each scale were presented along with the operational definition of each construct. All of items except for the levels of participation and behavioral loyalty were measured with a 7-point Likert scale. To measure levels of participation to investigate individual characteristics, the length/extent of time was asked. The behavioral loyalty was measured with three items such as actual amount of spending, frequency of purchases, and share of wallet of a selected brand by the respondents.

Table 5. Original scale items for constructs

Construct name in this study	Construct name in original study	Items	Reliability ²	Source
Need for Affiliation ¹	Affiliation Motivation	<p><i>Emotional support</i></p> <ul style="list-style-type: none"> • If I feel unhappy or kind of depressed, I usually try to be around other people to make me feel better. • I usually have the greatest need to have other people around me when I feel upset about something. 	.83	Hill (1987), <i>Journal of personality and social psychology</i>
		<ul style="list-style-type: none"> • One of my greatest sources of comfort when things get rough is being with other people. • When I have not done very well on something that is very important to me, I can get to feeling better simply by being around other people. • During times when I have to go through something painful, I usually find that having someone with me makes it less painful. 		
		<p><i>Attention</i></p> <ul style="list-style-type: none"> • I often have a strong need to be around people who are impressed with what I am like and what I do. • I mainly like be around others who think I am important, exciting person. • I often have a strong desire to get people I am around to notice me and appreciate what I am like. • I mainly like people when I can be the center of attention. • I don't like being with people who may give me less than positive feedback about myself. 	.80	
		<p><i>Positive stimulation</i></p> <ul style="list-style-type: none"> • I think being close to others, listening to them, and relating to them on a one-to-one level is one of my favorite and most satisfying pastimes. • Just being around others and finding out about them is one of the most interesting things I can think of doing. • I feel like I have really accomplished valuable when I am able to get close to someone. • One of the most enjoyable things I can think of that I Like to do is just watching people and seeing what they are like. 		

Table 5. (continued)

Construct name in this study	Construct name in original study	Items	Reliability ²	Source
		<ul style="list-style-type: none"> • I would find it very satisfying to be able to form new friendships with whomever I liked. • I seem to get satisfaction from being with others more than a lot of other people do. • I think it would be satisfying if I could have very close friendships with quite a few people. • The main thing I like about being around other people is the warm glow I get from contact with them. • I think get satisfaction out of contact with others more than most people realize. 		
		<p><i>Social comparison</i></p> <ul style="list-style-type: none"> • When I am not certain about how well I am doing at something, I usually like to be around others so I can compare myself to them. • I find that I often look to certain other people to see how I compare to others. • If I am uncertain about what is expected of me, such as on a task or in a social situation, I usually like to be able to look to certain others for cues. • I prefer to participate in activities alongside other people rather than by myself because I like to see how I am doing on the activity. • I find that I often have the desire to be around other people who are experiencing the same thing I am when I am unsure of what is going on. 	.71	
Perceived exchange support	Perceived social support	<p><i>Family</i></p> <ul style="list-style-type: none"> • My family really tries to help me. • I get the emotional help and support I need from my family. • I can talk about my problems with my family. • My family is willing to help me make decisions. <p><i>Significant other</i></p> <ul style="list-style-type: none"> • There is a special person who is around when I am in need. • There is a special person with whom I can share my joys and sorrows. • I have a special person in who is a real source of comfort to me. 	.91 ³	Zimet, Dahlem, Zimet, & Farley (1988), <i>Journal of Personality Assessment</i>

Table 5. (continued)

Construct name in this study	Construct name in original study	Items	Reliability ²	Source
		<p>Friends</p> <ul style="list-style-type: none"> • My friends really try to help me. • I can count on my friends when things go wrong. • I have friends with whom I can share my joys and sorrows. • I can talk about my problems with my friends. 		Zimet, Dahlem, Zimet, & Farley (1988), <i>Journal of Personality Assessment</i>
	Perceived interactivity	<p><i>Perceived control</i></p> <ul style="list-style-type: none"> • I was in control of my navigation through this Web site. • I had some control over the content of this Web site that I wanted to see. • I was in total control over the pace of my visit to this Web site. <p><i>Perceived responsiveness</i></p> <ul style="list-style-type: none"> • I could communicate with the company directly for further questions about the company or its products if I wanted to. • The site had the ability to respond to my specific questions quickly and efficiently. • I could communicate in real time with other customers who shared my interest in this product category. <p><i>Perceived personalization</i></p> <ul style="list-style-type: none"> • I felt I just had a personal conversation with a sociable, knowledgeable and warm representative from the company. • The Web site was like talking back to me while I clicked through the website. • I perceive the Web site to be sensitive to my nutritional information needs. 	.74 ⁴	Wu (2006), <i>Journal of Current Issues & Research in Advertising</i>
Individual characteristics	Length of participation	<p>How long have you been a member of this online travel community?</p> <ul style="list-style-type: none"> ○ Less than 6 months ○ 6–12 months ○ 1–3 years ○ 4–6 years ○ 7 years or more 	N/A ⁵	Wang & Fesenmaier (2004), <i>Tourism Management</i>

Table 5. (continued)

Construct name in this study	Construct name in original study	Items	Reliability ²	Source
	Extent of participation	How long, on average, do you go online to participate in this online travel community per week? <ul style="list-style-type: none"> o Less than 5 h/week o 5–9 h/week o 10–19 h/week o 20 h or more/week 		Wang & Fesenmaier (2004), <i>Tourism Management</i>
Sense of Online Brand Community	The neighborhood cohesion instrument	<ul style="list-style-type: none"> • I feel like I belong to this neighborhood. • The friendship and associations I have with other people in my neighborhood mean a lot to me. • If the people in my neighborhood were planning something I'd think of it as something "we" were doing rather than "they" were doing. • I think I agree with most people in my neighborhood about what is important in life • I feel loyal to the people in my neighborhood. • I would be willing to work together with others on something to improve my neighborhood. • I like to think of myself as similar to the people who live in this neighborhood. • A feeling of fellowship runs deep between me and other people in this neighborhood. • Living in this neighborhood gives me a sense of community. 	.95 ⁶	Buckner (1988), <i>American Journal of Community Psychology</i>
Consumer-brand relationship	Brand engagement in self-concept	<ul style="list-style-type: none"> • I have a special bond with the brands that I like. • I consider my favorite brands to be a part of myself. • I often feel a personal connection between my brands and me. • Part of me is defined by important brands in my life. • I feel as if I have a close personal connection with the brands I most prefer. • I can identify with important brands in my life. • There are links between the brands that I prefer and how I view myself. • My favorite brands are an important indication of who I am. 	.94	Sprott, Czellar, & Spangenberg (2009), <i>Journal of marketing research</i>

Table 5. (continued)

Construct name in this study	Construct name in original study	Items	Reliability ²	Source
Brand commitment	Commitment	<ul style="list-style-type: none"> • I am very committed to maintaining this relationship. • This relationship is not very important to me. ® • I would make a great effort to maintain my relationship with this person. • I do not expect this relationship to last very long. ® 	.76	Morgan & Hunt (1994), <i>Journal of marketing</i>
Brand advocacy	Word-of-mouth communication	<ul style="list-style-type: none"> • I encourage friends and relatives to do business with this bank. • I recommend this bank whenever anyone seeks my advice. • When the topic of banks comes up in conversations, I go out of my way to recommend this bank. • I have actually recommended this bank to my friends. 	.91	Gremler & Gwinner (2000), <i>Journal of service research</i>
Brand preference	Brand preference	<ul style="list-style-type: none"> • I will visit XYZ brand even if other parks are lower priced. • I will continue to do business with the [theme park] even if its price increase somewhat. • I will pay a higher than competitors charge for the benefits I currently receive from [theme park]. • I will consider [theme park] as my first choice for theme parks. 	.84	Carlson, et al. (2008), <i>Journal of business research</i>
Behavioral loyalty	Behavioral loyalty	<ul style="list-style-type: none"> • What percentage of your total expenditures for clothing do you spend in this store? • Of the 10 times you select a store to buy clothes at how many times do you select this store? • How often do you buy clothes in this store compared to other stores where you buy clothes? 	.60-.80 ⁷	De Wulf, et al. (2001), <i>Journal of marketing</i>

Table 5. (continued)

Construct name in this study	Construct name in original study	Items	Reliability ²	Source
BSN engagement	Community engagement	<ul style="list-style-type: none"> • I benefit from following the brand community's rules • I am motivated to participate in the brand community's activities because I feel better afterwards. • I am motivated to participate in the brand community's activities because I am able to support other members. • I am motivated to participate in the brand community's activities because I am able to reach personal goals. 	.88	Algesheimer et al., (2005), <i>Journal of marketing</i>

Note:

1. 'Need for Affiliation' construct was developed as '*The Interpersonal Orientation Scale*' with four dimensions: social comparison, emotional support, positive stimulation, and attention by Hill, C. (1987).
2. Values presented in the table are Cronbach α except for *perceived exchange support, perceived responsiveness, and sense of online brand community* (3, 4, and 6). The measures for 3, 4, and 6 are composite reliability score.
5. Length of participation and extent of participation is single item measures
7. The reliability score of individual constructs that have adopted in De Wulf et al. (2001), the researchers indicate that all scales employed in their study have good composite reliability ($.60 < \alpha < .80$) and the average variance extracted exceeding .50.

Need for affiliation. Measurement items for need for affiliation motive are adapted from the study by Hill (1996). In this study, need for affiliation is defined as the tendency to receive gratification from harmonious relationships and from a sense of communication (Murray, 1938). The need for affiliation addresses individuals' tendency to establish interpersonal relationships and social relationships. Hill (1996) suggests that need for affiliation as a critical predictor to build SOC. Need for affiliation includes four sub-dimensions such as emotional support, attention, positive stimulation, and social comparison. Emotional support is measured with five items with questions to investigate positive affect or stimulation associate with interpersonal closeness and communion. Five items are employed to measure attention. The attention reward elucidates fear of rejection that is a concern about approval from others and the wish that others have a positive view of oneself, suggesting a desire for attention or praise (Shipley Jr & Veroff, 1952). Nine items are adapted to explicate positive stimulation which investigates the type of social reward, love, and intimacy (Murray, 1938). The five items are addresses the social comparison to explore situational determinants of preference for social contacts. (Darley & Aronson, 1966). All measurement items are assessed using a 7-point Likert scale ranging from 'Very unlikely (1) to 'Very likely (7).'

Perceived exchange support. Measurements of perceived exchange support involve two constructs. In this study, perceived exchange support depicts individuals' perception of support both from company and others, which is concerned with the nature of the support received in BSN. The perception of support from others and company is originally developed as multidimensional scales of the perceived social support, which examines supports of family, friends, and others (Zimet et al., 1988). In this study, the perception of social support is measured

with a 7-point Likert scale ranging from ‘strongly disagree’ (1) to ‘strongly agree’ (7). The original scale items (e.g., There is a special person who is around when I am in need) are modified to be tested in BSN context (e.g., other members who are around [XYZ brand] Page when I am in need). In the main survey, a selected brand Page name is shown as respondents choose a brand and a brand Page that they have participated previously (e.g., Starbucks brand Page).

Perceived interactivity is designed to measure the degree to which the user perceives that the interaction is two-way, controllable, and responsive to their actions (Wu, 2006). The perceived interactivity construct consists of three sub-dimensions: perceived control, perceived responsiveness, and perceived personalization. The measurement items of perceived interactivity are measured with a 7-point Likert scale ranging from ‘strongly disagree’ (1) to ‘strongly agree’ (7). While the perceived control and perceived personalization constructs examine individuals’ perception and capabilities to control Web site and to consider personalized interactions, perceived responsiveness addresses consumers’ perception of fast, efficient, and continues support from the company, other customers in the Web site. In the main survey, the word “XYZ brand] Page” and “company” are added to examine the context of this study.

Individual characteristics. In this study, individual characteristics address an individual’s levels of participation in a selected brand Page. Following to the Wang and Fesenmaier (2004), the nature of member participation is defined by two dimensions of participation: *the amount of time* members participated in community activities and *the extent to which members actively interact* with other members in the community. Both aspects of participation reflect members’ commitment as well as the nature of their activities in the BSN. The respondents are given to choose the amount and the length of time for both questions.

Sense of online brand community. Sense of online brand community is defined as the degree to which an individual perceives relational bonds with the brand and other brand users in BSNs (Carlson et al., 2008). There is a bulk of sense of community measures in the previous studies, extant research of SOC predominantly focuses on individuals' connection to others, community, and a sense of belonging (Buckner, 1988; Burroughs & Eby, 1998; McMillan & Chavis, 1986). Although the community researchers develop different scales to measure a sense of belonging in various study contexts, this study adapts Buckner (1988)'s items due to a careful investigation and generation of items by the researcher. Particularly, Buckner (1988) develops the scale for the neighborhood cohesion which includes the sense of community and attraction to neighborhood. As the instrument addresses both individual's feeling of belonging in a neighborhood and other community members, it is appropriate to adopt in BSN to elucidate the relationships between a selected brand Page and members in BSN. However, two items which ask about specific behaviors relate to home visit are omitted (e.g., I visit my neighbors in their homes and I rarely have neighbor over to my house to visit). The negatively coded items are changed to be positive (e.g., "Given the opportunity, I would like to *move out* of this neighborhood" to "Given the opportunity, I would like *to stay* in [XYZ brand] Page). Respondents are asked to rate how much they agree with series of statement including "A feeling of fellowship runs deep between me and other people," using a 7-point Likert scale ranging from 'strongly disagree' (1) to 'strongly agree' (7). As the context of the original study was neighborhood setting, this study alters the neighborhood to a select brand Page name by the respondent.

Consumer-brand relationship. The consumer-brand relationship is designed to explore the overall connection between a selected brand and the consumers. The consumer-brand relationship in this study is defined as an individual difference representing consumers'

propensity to include important brands as part of how they view themselves (Sprott et al., 2009). Particularly, the measures of consumer-brand relationship adapt the brand engagement in self-concept (BESC). Although there are several studies which investigate the connection between brand and the consumers, the measures utilized and developed are not rigorous to address what the consumer-brand relationships truly are. Therefore, this study adapts the recent study which discovers the effects of favorite brands to identify her- or him-self. Eight items are implemented using a 7-point Likert scale ranging from ‘strongly disagree’ (1) to ‘strongly agree’ (7). While the original scales for BESC do not specify a specific brand or a product, modifications are made to include the study context.

Brand commitment. This study examines potential outcomes of building positive long-term relationship in BSN with several behavioral and attitudinal intentions. Brand commitment is defined as an enduring desire to maintain valued relationships between two parties (Dwyer et al., 1987; Morgan & Hunt, 1994). Commitment construct is originally developed to measure the quality of marriage or partnership in psychology, but increasing number of marketing researchers have implemented the commitment to illuminate affective- and emotion-laden relationship quality on consumer behaviors (Fournier, 1998; Caroll & Ahuvia, 2006). Although the original scales of commitment include affective, normative, and continuance sub-dimensions, this study specifically focuses on affective commitment. Four items of affective commitment measures are adapted from the studies by Morgan and Hunt (1994) and Parks and Roberts (1998).

Respondents are asked to answer four statements (e.g., I am very committed to maintaining the relationship with XYZ brand) with a 7 point Likert scale ranging from ‘strongly disagree’ (1) to ‘strongly agree’ (7). In the main survey, a brand name without the word, ‘brand Page’ is added to clarify what the relationship indicates. Among four items, two items are originally reverse-

coded, but this study modifies the reverse coded items to have positive statements (e.g., this relationship is *not* very important to me).

Brand advocacy. Brand advocacy (i.e., positive word-of-mouth) is defined as a customer's likelihood to share favorable word-of-mouth (WOM) with others (Zeithaml et al., 1996). There are many studies which generate WOM measures; this study adapts five items from Gremler and Gwinner (2000). To assess how likely consumers to recommend a selected brand, respondents are asked to rate how much they are likely to refer a selected brand to other consumers using a 7-point Likert scale ranging from 'very unlikely' (1) to 'very likely' (7).

Brand Preference. Brand preference addresses behavioral intention to continue businesses with a selected brand in this study. Brand preference is operationalized as a customer's preference under the assumption of equality in price and availability (Cobb-Walgren, Ruble, & Donthu, 1995). Items measuring this construct are adapted from Carlson et al. (2008), which are originally developed in Cobb-Walgren et al. (1995). Respondents are asked how often they tend to patronize a selected brand over competitors with four statements using a 7-point Likert scale ranging from 'very unlikely' (1) to 'very likely' (7).

Behavioral loyalty. Behavioral loyalty is operationalized based on a customer's purchasing frequency and amount spent at a selected brand compared to the amount spent at other brands (i.e., competitors). In this study, respondents are asked to answer three questions of a behavior nature which the respondents exhibit when they purchase. The two questions evaluates respondents' share of wallet to indicate the strength of the relationships. The frequency of shopping assesses the depth of relationships.

BSN engagement. Although there are different measures to test consumer engagement behaviors, this study adopts Higgins's (2006) conceptualization of consumer engagement. Consumer engagement is operationalized as a motivational state is to be involved, occupied, and interested in BSN activities. While many studies have measured consequences of consumer engagement, this study focuses on motivation that encourages consumers' participation in BSN. For the measurement of BSN engagement, four items from Algesheimer et al. (2005) are adapted. The original scale statements are modified to be tested in BSN context (e.g., brand community → [XYZ brand] Page). Respondents are asked to how much they agree to help others and to be motivated to participate in a selected brand Facebook page. The measurement items employ a 7-point Likert scale ranging from 'strongly disagree' (1) to 'strongly agree' (7).

Demographic information. The final section of the survey is designed to gather demographic information of respondents. The questions include gender, age groups, household income, education levels, area of residence, and ethnic background.

Content Validity Test

Assessing measurement properties is accomplished through review of all constructs by academic experts (i.e., two academic researchers and five doctoral students in retail and consumer science department). The questionnaire and the definition of all constructs are reviewed to evaluate clarity, readability, completeness, and content validity. Revisions are made based on the judges' feedback. Through the process of reviewing each item, the experts suggest to find alternative measures of sense of online brand community (SOBC) due to the original items address the relationship among members which does not investigate relationship with the company. In addition, the experts recommend adopting only one sub-dimension of perceived social support and perceived interactivity to focus on the study context. The initial items of

perceived social support include three sub-dimensions to investigate the impact of significant family, friends, and others (Zimet et al., 1988). However, this study particularly focuses on the relationship with others who are not familiar with respondents in BSN, so exclusion of two sub-dimensions which measure the influence of family and friends is suggested. To measure perceived interactivity, the construct originally consists of three sub-dimensions that investigate individuals' ability to control the website and individuals' feeling of having personalized interaction with the site, as well as the company's ability to respond quickly and appropriately (Wu, 2006). As this study focuses on relational aspect of building relationship with others in BSNs, the experts recommend excluding two sub-constructs that investigate controllability and personalization of interactivity for this study. Based on the experts' suggestion, the revisions are made. The summary of final measures is presented in Appendix A.

Pilot-test of the Questionnaire

Based on the evidence from the literature (e.g., Johanson & Brooks, 2010), about 10 to 30 participants were recruited to examine developed questionnaires. The benefits of using a pilot-test is to get an indication of whether individual questions and scales appear to be working as intended (Dillman, Smyth, & Christian, 2009). The primary objectives of the pilot test for this study is to ensure content validity of the measures for the main study and to refine any items which are neither statistically reliable nor valid.

A pilot test was administrated using a convenience sample. Forty qualified individuals who were eighteen years or older and have participated in one of Facebook Brand Page activities which involved clicking, liking, and distributing a certain brand's Facebook Page information within the past six months were selected. The sample population of the pilot study was recruited from two major universities. Students and faculty members in at two major universities were

asked to take the survey. Student subjects received extra credit for their participation. A total 32 usable surveys were used for analyzing construct reliability by calculating Cronbach's alpha coefficient. The reliabilities of the constructs are shown in Table 6. The range of construct reliabilities ranged from 0.689 to 0.961, indicating satisfactory level of internal consistency (Nunnally&Berstein, 1994).

Table 6. Construct Reliabilities (Pilot test; n=32)

Construct	Number of items	Reliability (Cronbach's alpha)
Need for affiliation	24*	.961
Emotional support	5	.866
Attention	5	.924
Positive stimulation	9	.931
Social comparison	5	.941
Perceived exchange support	6	.82
Sense of online brand community	17	.880
Consumer-brand relationship	8	.914
Brand commitment	4	.894
Brand advocacy	5	.950
Brand preference	4	.838
Behavioral loyalty	3	.689
Brand engagement	4	.833

Note:

* includes dimensions of emotional support, attention, positive simulation, and social comparison.

Final Measurement Revision

Based on the result of a pilot-test, content validity of the refined items was examined by three judges (two faculty members in Retail, Hospitality, and Tourism Management and one Retail Marketing faculty member in the major university). Also, the respondents of pilot-test were asked to provide any feedback for unclear items. The researcher provided the additional option to choose a statement (“this statement is not clear.”) in line with possible responses for each item. Also, the respondents had a separate space to provide any comments about unclear statements at the end of each construct. Minor revisions to the final version of the questionnaire were made. For instance, some of respondents selected a Fan Page instead of Brand Page when

they were asked to write down one specific Brand Page, so the statement of “Please do not include a Fan page such as a public figure Fan Page (e.g., Lady Gaga), a TV show Fan Page (e.g., CSI), or a sport team Fan Page (e.g., Real Madrid) or a local restaurant Facebook Page,” was added.

Final Measurement

Based on results of the pilot-test, generated items will be refined to finalize the measurement scales. After the revision, several expert judges will examine the revised items. Also, to ensure the overall flow of the questionnaire and the validation of survey content, final attempts to purify the measures will be conducted on the main survey. The finalized measures in the main survey are presented at Appendix B. Exploratory factor analysis will be conducted to examine multi-level predictors of SOBC. Particularly, Need for affiliation construct consists with four sub-dimensions with 24 items, so the dimensionality of construct will be evaluated. Lastly, construct reliability will be assessed through Cronbach’s coefficient alpha (Kline, 2005).

CHAPTER IV: DATA ANALYSIS AND RESULTS

This chapter presents data analyses and results of hypothesis testing that are proposed in Chapter 2. The preliminary analysis of collected data is conducted in SPSS statistical software 20.0 version. The discussion of descriptive analyses of the collected data is presented at first. The descriptive statistics are employed to reveal problems with each item, data distribution, skewness, and kurtosis. After then, the research model and the hypotheses are tested using structural equation modeling, utilizing AMOS 20 (J. C. Anderson, Gerbing, & Hunter, 1987). The two-step approach is engaged: (1) confirmatory Factor Analysis (CFA) to test the measurement model and (2) Structural Equation Modeling (SEM) to examine causal relationships among the latent constructs for hypotheses testing. First, CFA determines whether observed measurement items adequately reflect what they are supposed to measure in each construct. After completion of the CFA, SEM is conducted to test the proposed causal relationships among the constructs. The structural model is evaluated using a variety of diagnostic tests including the goodness-of-fit of estimated models (GFI), the chi-square test (χ^2), the ratios of chi-square to degrees of freedom (χ^2/df), the root mean square error of approximation (RMSEA), and the comparative fit index (CFI).

Descriptive Characteristics of the Main Study

Among a total of 922 responses, 617 respondents are continued after the screening question that asks about respondents' Facebook Brand page participation. Excluding 155 incomplete surveys, 466 usable responses are included in main data analyses. Prior to preliminary analysis, descriptive analyses of respondents' behavior on social media are conducted. Respondents are asked to select all possible social media platforms they have visited during the past six months. Among 466 respondents, the most frequently visited social media

platform is social networking sites such as Facebook (n=466) followed by social photo sharing sites (n=340), blogs and micro-blogs (n=232), and collaborative projects (n=224). The least selected platforms are virtual game work (n=84) and virtual social worlds (n=162) (see table 7).

Respondents are asked to answer a question about general activities on Facebook. Major responses include changing personal profile information (80.3%) and clicking “Like” button on postings on a certain brand or a company’s Page (84.5%). Respondents also appear to frequently browse any brand’s Facebook page (71.7%) and become a “Liker” of a certain brand or a company (75.7%), which indicates that the respondents actively engage in Facebook brand Pages. In addition, 52.4% of respondents post messages in the form of comments and questions on Facebook Brand Pages, and 15836.9% participate in polls or discussions provided by the brand Page manager. Approximately 53% of respondents reported that they chat with a friend on Facebook (see Table 8).

Also, respondents are asked to select Facebook brand Pages for products or retail categories that they have browsed and/or participated in, which are expected to investigate any notable difference in product/service categories on Facebook Page participation. Among 10 categories provided in the questionnaire, snack/beverage (n=332) and retail stores (n=285) are most frequently selected. Table 9 presents the result.

Table 7. Frequency of social media platform visit

Type	Frequency	Percentage
Social Networking Sites (SNS)	499	99.4%
Social photo/video sharing sites	340	67.7%
Blogs and micro-blogs	232	46.2%
Collaborative projects	224	44.6%
Virtual social worlds	162	32.3%
Virtual game worlds	84	16.7%
Other	10	2.0%

Note:

Total frequency is greater than N = 466 because respondents could select more than one answer.

Table 8. Frequency of general activities on Facebook

Activities	Frequency	Percentage
Clicked “Like” button as a response to any postings by a certain brand or a company	424	84.5%
Change personal profile information	403	80.3%
Became a “Liker” of a certain brand, a company, or a product	380	75.7%
Browsed any Brand Page on Facebook	360	71.7%
Had a chat with a friend	345	68.7%
Browsed special coupons, exclusive deals, and advertisement, etc.	276	55.0%
Posted message/comments/questions on any Brand Page Wall	263	52.4%
Participated in the poll or discussions on any Brand Page	185	36.9%
Other	6	1.2%

Note:

Total percentage is greater than 100% because respondents could select more than one answer.

Table 9. Frequency of brand and/or retail store categories

Brand categories	Frequency	Percentage
Snack/beverage	332	66.1%
Retail stores	247	65.7%
Dining	286	57.0%
Beauty products	286	49.2%
Apparel	225	44.8%
Coffee House	186	37.1%
Consumer technology products	330	33.1%
Automobile	110	21.9%
Lodging	106	21.1%
Other	41	8.2%

** Total percentage is greater than 100% because respondents could select more than one answer.

Descriptive statistics of respondents is presented in Table 10. Approximately 33.9% of respondents are male. The respondents’ age range from 18 to 65 or above: 27.5% of respondents were aged 55-64; 24.2% were aged 45-54; 20.4% were aged 35-44; 18.9% were aged 25-34; 6.9% were aged 65 or over; 1.5% were aged 18-24. Regarding to the ethnicity, approximately 83% of respondents were Caucasian, followed by African-American (5.8%), Hispanic (5.4%), Asian (4.1%), and Native American or Pacific Islander or other (1.4%). The ranges of income are distributed from under \$20,000 to over \$90,000. The proportion of income levels was fairly even among the respondents ranged between 8% and 13%. About 36% of respondents completed some college or associate degree as their highest level of education, followed by high school or

GED degree (21%), graduate or professional degree (12.8%), and less than high school (1.1%).

Respondents' areas of residence were largely in metropolitan area with population between 100,000 or more (42.9%), followed by urban areas with population between 2,500 and 99,000 (39.6%), and small city with population less than 2,500 (18.5%).

Table 10. Demographic information of respondents

Demographics (n=466)		Frequency	Percentage
Gender	Female	308	66.1%
	Male	158	33.9%
Age	18-24	10	0.6%
	25-34	88	18.9%
	35-44	95	20.7%
	45-54	113	24.2%
	55-64	128	27.5%
	65 or over	32	76.9%
Ethnicity	White (Caucasian)	388	83.3%
	African American	27	5.8%
	Hispanic	25	5.4%
	Asian	19	4.1%
	Native American	3	0.6%
	Pacific Islander	1	0.2%
	Other	3	0.6%
Income	Under \$20,000	53	11.4%
	\$20,000 - \$29,999	57	12.2%
	\$30,000 - \$39,999	46	9.9%
	\$40,000 - \$49,999	59	12.7%
	\$50,000 - \$59,999	48	10.3%
	\$60,000 - \$69,999	53	11.4%
	\$70,000 - \$79,999	38	8.2%
	\$80,000 - \$89,999	22	4.7%
	\$90,000 or more	90	19.3%
Highest Level of Education	Less than high school	5	1.1%
	High school/GED	98	21.0%
	Some college or associate degree	175	36.1%
	Bachelor's degree	127	27.3%
	Graduate or professional degree	61	12.8%
	Other	2	0.4%
Area of Residence	Metropolitan area with population above 250,000 people	130	27.9%
	Metropolitan area with population between 100,000 to 249,999 people	70	15.0%
	Urbanized area with population between 50,000 to 99,000 people	91	19.5%
	Urban duster that has least 2,500 people but fewer than 50,000	89	19.1%
	Small city or town with population less than 2,500	86	18.5%

Preliminary Analyses

Data Distribution

Preliminary analysis using SPSS 18.0 reveals a review of descriptive statistics related to the measurement items, including minimum and maximum values, means, standard deviations, and the skewness and kurtosis values of each items. Analysis of the skewness and kurtosis of the data was completed to examine potential issues regarding univariate and multivariate normality. Absolute values of all items range from .006 to 1.109, and kurtosis ranged from .003 to 1.159 except for one item: the extent of participation in a certain Facebook Page in the construct of individual characteristics is skewed significantly (skewness=2.823 and kurtosis=7.862). Therefore, this item is eliminated from the final measurement model and the structural model. Bollen (1989) recommends the absolute value of skewness and kurtosis to be less than 3.0 to assure the normal distribution. The results of univariate normality are presented in Table 11.

Table 11. Normality of measurement items

	Construct	Item	Min	Max	Mean	STD	Skewness	Kurtosis
Need for affiliation	Emotional support	ES01	1	7	4.42	1.766	-0.345	-0.682
		ES02	1	7	3.85	1.775	0.052	-0.838
		ES03	1	7	4.45	1.727	-0.310	-0.652
		ES04	1	7	4.33	1.669	-0.297	-0.534
		ES05	1	7	4.89	1.657	-0.660	-0.192
	Attention	ATT01	1	7	3.76	1.858	0.045	-1.002
		ATT02	1	7	3.88	1.843	-0.038	-0.943
		ATT03	1	7	3.69	1.851	0.085	-0.990
		ATT04	1	7	2.94	1.821	0.608	-0.719
		ATT05	1	7	4.10	1.794	-0.194	-0.884
	Positive stimulation	PS01	1	7	5.01	1.459	-0.559	-0.056
		PS02	1	7	4.93	1.524	-0.527	-0.122
		PS03	1	7	4.83	1.536	-0.540	-0.103
		PS04	1	7	4.87	1.500	-0.583	0.050
		PS05	1	7	5.11	1.481	-0.697	0.272
		PS06	1	7	4.16	1.668	-0.115	-0.611
		PS07	1	7	4.71	1.618	-0.409	-0.504
		PS08	1	7	4.59	1.576	-0.366	-0.367
		PS09	1	7	4.37	1.649	-0.344	-0.546
	Social comparison	SC01	1	7	3.63	1.791	0.215	-0.846

Table 11. (Continued)

Construct	Item	Min	Max	Mean	STD	Skewness	Kurtosis
	SC02	1	7	3.61	1.827	0.157	-0.974
	SC03	1	7	4.21	1.736	-0.257	-0.710
	SC04	1	7	3.98	1.679	-0.316	-0.764
	SC05	1	7	4.54	1.638	-0.473	-0.321
Individual characteristics*	IC01	1	5	3.33	1.278	-0.272	-1.019
	IC02	1	4	1.24	0.608	2.823	7.862*
Perceived Interactivity	PI01	1	7	5.50	1.268	-0.640	0.034
	PI02	1	7	5.08	1.309	-0.359	0.003
	PI03	1	7	5.30	1.277	-0.540	0.338
Perceived social support	SO01	1	7	4.63	1.528	-0.328	-0.182
	SO02	1	7	4.35	1.694	-0.316	-0.491
	SO03	1	7	3.80	1.891	-0.006	-1.001
Sense of online brand community	SOBC01	1	7	4.80	1.432	-0.290	-0.168
	SOBC02	1	7	4.73	1.460	-0.410	-0.016
	SOBC03	1	7	3.67	1.946	0.058	-1.159
	SOBC04	1	7	3.77	1.840	-0.013	-0.872
	SOBC05	1	7	4.74	1.597	-0.454	-0.180
	SOBC06	1	7	3.97	1.783	-0.104	-0.811
	SOBC07	1	7	4.30	1.804	-0.432	-0.680
	SOBC08	1	7	4.25	1.634	-0.319	-0.309
	SOBC09	1	7	3.87	1.827	-0.063	-0.854
	SOBC10	1	7	3.90	1.867	-0.088	-1.069
	SOBC11	1	7	4.53	1.642	-0.423	-0.285
	SOBC12	1	7	3.57	1.940	0.117	-1.105
	SOBC13	1	7	4.39	1.638	-0.431	-0.284
	SOBC14	1	7	3.79	1.854	-0.009	-0.982
	SOBC15	1	7	3.61	1.950	0.126	-1.129
	SOBC16	1	7	4.09	1.851	-0.268	-0.840
	SOBC17	1	7	4.98	1.490	-0.533	0.249
Consumer-brand relationship	CBR01	1	7	4.67	1.570	-0.462	-0.250
	CBR02	1	7	4.77	1.533	-0.614	0.041
	CBR03	1	7	4.47	1.653	-0.337	-0.469
	CBR04	1	7	4.33	1.721	-0.391	-0.614
	CBR05	1	7	4.29	1.733	-0.335	-0.607
	CBR06	1	7	4.74	1.549	-0.680	0.183
	CBR07	1	7	4.23	1.744	-0.303	-0.636
	CBR08	1	7	4.49	1.702	-0.490	-0.431
Brand commitment	BC01	1	7	4.82	1.571	-0.582	-0.087
	BC02	1	7	4.69	1.585	-0.417	-0.266
	BC03	1	7	4.64	1.600	-0.370	-0.323
	BC04	1	7	5.08	1.421	-0.604	0.311
Brand advocacy	BA01	1	7	5.49	1.388	-0.851	0.680
	BA02	1	7	5.69	1.317	-1.074	1.166
	BA03	1	7	5.41	1.410	-0.647	0.001
	BA04	1	7	5.76	1.265	-1.052	1.165
	BA05	1	7	5.87	1.193	-1.109	1.291
Brand preference	BF01	1	7	5.15	1.259	-0.416	0.138
	BF02	1	7	4.64	1.507	-0.232	-0.410
	BF03	1	7	5.44	1.238	-0.723	0.845
	BF04	1	7	5.01	1.516	-0.486	-0.220
Behavioral loyalty	BL01	1	100	28.92	29.578	0.975	-0.272

Table 11. (Continued)

Construct	Item	Min	Max	Mean	STD	Skewness	Kurtosis
Brand Engagement	BL02	1	10	6.43	2.961	-0.453	-1.044
	BL03	1	5	3.70	0.812	-0.361	0.286
	BE01	1	7	4.83	1.527	-0.440	-0.270
	BE02	1	7	4.21	1.777	-0.196	-0.779
	BE03	1	7	4.01	1.850	-0.071	-0.896
	BE04	1	7	3.94	1.858	-0.064	-0.939

Note:

* Mean scores of IC01 (*length of participation*) and IC02 (*extent of participation*) are based on a 5-point and a 4-point rating scale, respectively. For example, a 5-point scale is ranging from 1= less than 1 month, 2 = 1-3 months, 3 = 2-6 months, 4 = 6-12 months, 5 = 1-3 years).

Internal Consistency and Reliability of Measurement Items (α)

Using SPSS 20.0 Statistical Software, internal consistency which evaluates relatedness of the measurement items is analyzed to ensure random measurement errors, which are caused by lack of relationship between each measurement item and a relevant construct. Cronbach's alpha (α), a commonly used and reported statistical measure of internal consistency, is calculated (Kline, 2005). The reliabilities of constructs range from 0.854 to 0.970, demonstrating satisfactory levels of internal consistency, which is above a threshold value of .70 (Nunnally and Bernstein 1994).

Table 12. Reliabilities of constructs

Construct	Number of items	Composite Reliability (Cronbach's alpha)
Need for affiliation	24*	.958
Emotional support	5	.924
Attention	5	.894
Positive stimulation	9	.937
Social comparison	5	.896
Perceived exchange support	6	.854
Sense of online brand community	17	.970
Consumer-brand relationship	8	.968
Brand commitment	4	.953
Brand advocacy	5	.948
Brand preference	4	.895
Behavioral loyalty	3	.768
Brand engagement	4	.925

Note:

** Need for affiliation includes sub-constructs of emotional support, attention, positive stimulation, and social comparison

MEASUREMENT MODEL EVALUATION

Confirmatory Factor Analysis on Individual Constructs

Confirmatory Factor Analysis (CFA) on Individual constructs is conducted to evaluate the measurement model. In this process, unidimensionality, reliability, construct validity, and model fit of the measurement model are evaluated. First, CFA for each 7 constructs is conducted separately to evaluate the measurement model. This step provides the evaluation of issues related to validity and reliability of the constructs and each items, as well as overall fit of the proposed model. Maximum Likelihood Estimation (MLE) is used to estimate the parameters in both the measurement and structural model as MLE is considered to be a robust estimation technique (Kline, 2005).

To assess the fit of each model, a number of diagnostic statistics are evaluated. The χ^2 statistic provides a means to reviewing the difference between the proposed models with a number of parameter constraints to one which is unconstrained (Bryne, 2001). The degree of freedom (df) is estimated to demonstrate the number of parameters allowed to vary. According to Bollen (1989), when the χ^2/df ratio is less than 5.0, this result demonstrates reasonable fit of the proposed model by adjusting for sample size difference within the data. The comparative fit index (CFI) and the goodness-of-fit index (GFI) are considered incremental indexes that present the hypothesized model with a baseline model, and values above .90 are suggested to be appropriate as a reasonable fit (Bentler, 1992: Kline, 2005). The root mean square error of approximation (RMSEA) supports parsimony of the model, and values .80 or less than that indicate reasonable approximation (Kline, 2005) (See table 13).

Analysis of a Second Order Construct: Need for Affiliation

The need for affiliation (NFA) construct consists of four sub-constructs (i.e., emotional support, attention, positive stimulation, and social comparison). The initial CFA model includes all 24 measurement items. The fit indices indicates acceptable fit ($\chi^2=1035.276$, $df =245$, $\chi^2/ df =4.226$, $CFI=0.90$), but RMSEA is high (0.127). Based on the output of a first-order NFA, the second or CFA is analyzed as the literature suggested (citation). Both first- and second-order NFA loadings are significant, demonstrating the significance of the construct. However, as the previous literature supports, this study analyzes the NFA construct as the second-order construct in order to examine the effects of specific personality attributes on sense of brand community rather than treating the diverse attributes as a universal dimension. The results of initial CFA are exhibited in Table 13.

Table 13. Fit statistics of each construct: *initial stage*

Construct		Number of items	$\chi^2 (df)$	χ^2/ df^1	CFI ²	GFI ³	NFI ⁴	RMSEA ⁵
Need for affiliation (NFA)	(2 nd order factor)	24	1184.198 (248)	4.775	.903	.793	.879	.087
Perceived exchange support	Perceived social support	3	N/A	N/A	N/A	N/A	N/A	.709
	Perceived interactivity	3	N/A	N/A	N/A	N/A	N/A	.616
Sense of online brand community		17	398.224(78)	5.105	.882	.745	.870	.133
Consumer-brand relationships		8	258.234 (20)	12.912	.948	.877	.944	.160
Brand commitment		4	11.312 (2)	5.656	.996	.988	.995	.100
Brand advocacy (WOM)		5	61.246 (5)	12.249	.978	.949	.976	.156
Brand Preference*		4	53.822 (2)	26.911	.956	.952	.955	.236
BSN Engagement*		4	47.049 (2)	23.525	.973	.951	.971	.220
Behavioral Loyalty		3	N/A	N/A	N/A	N/A	N/A	0.483

Note:

1. < 5 indicates acceptable fit level (Wheaton et al., 1977), <2 indicates good-fit (Boeln, 1989)
2. ≥ 0.80 acceptable fit, ≥ 0.90 good fit
3. ≥ 0.80 acceptable fit, ≥ 0.90 good fit

4. ≥ 0.80 acceptable fit, ≥ 0.90 good fit
 5. < 0.05 very good, < 0.08 acceptable, < 0.10 mediocre, ≥ 0.10 poor errors of approximation (Bryne, 2001)
- * Brand preference and BSN engagement constructs were significant at 0.5-level while all other constructs were significant at .000- level.

Model Improvement for Individual Constructs

In order to improve the fit of the model, three statistical criteria are evaluated: standardized regression weights, standardized residual covariance, and modification indices (MIs). First, a standardized regression weight less than 0.4 is removed due to its measurement error (Singh, 1995). Then, a high absolute standardized error (values >2.58), which is indication of substantial prediction error is carefully examined for potential elimination from the model (Joreökog & Sörbom, 1988). Lastly, a univariate index (i.e., M.I.) that estimates the amount of an un-estimated relationship to improve the overall fit of the model is evaluated (Joreökog & Sörbom, 1988). For example, an item with high M.I. indicates high correlation between two variables that are not supposed to have a relationship, indicating a sign of misfit of the item. In this process, ATT04 and SC02 are dropped due to high scores of M.I. with other items. For sense of online brand community (SOBC), SOBC01 and SOBC02 are cross-loaded. A high standardized residual covariance between two items (2.957) and a significant high M.I. (38.834) are found. In addition, SOBC05 and SOBC17 are removed because of high standard residual covariance (3.591) and a significantly high M.I. (43.009). For the consumer-brand relationship construct, all measurement items of consumer brand relationship have a fair MI, high regression weight (above .80), and low standard residual covariance (less than 1.0). However, there are some errors with high MI (i.e., values are greater than 10). In order to improve the model fit, errors with high M.I. score are correlated. For the brand commitment construct, all items have high standard regression weights (values were above .88) and low absolute standard residual covariance (values were below than 1.00). There are no high MI scores for each item. The

overall model fit is great, but the M.I.s of error of BC_05 with BC_06 are high (i.e., 18.056), so these two items are correlated. The brand advocacy (WOM) has overall good fit at the initial stage of analysis, but errors of WOM01 (MI=22.628) and WOM04 (MI=34.681) have high M.I. scores, so those items are correlated to improve model fit. However, the model becomes less significant ($p=0.005$) compared to other constructs. Adding correlation between items for the same construct is theoretically supported (Gerbing & Anderson, 1984). Lastly, for the brand preference construct, all measurement items show high standard regression weight (values were greater than .70). However, BF_03 reveals a high M.I. score (MI=12.183), and several errors are highly correlated (BF_01, BF_02, BF_03, BF_04). However, when all error terms with high M.I. are correlated, the model becomes non-significant. Therefore, the researcher decides to correlate between BF_02 and BF_03 error terms, which generate the best fit.

Table 14. Fit statistics of CFA on individual construct: *refined model*

Construct	Number of items	Item dropped	Error terms correlated	χ^2 (df)	χ^2/df^1	CFI ²	GFI ³	RMSEA ⁴
Need for affiliation (2 nd order factor)	22	ATT04, SC02	ES05-PS06, ATT03-PS09, ATT05-PS01, PS01-PS02, PS01-PS03, PS02-PS07, PS03-PS04, PS03-PS06, PS06-PS09, PS08-PS09, PS06-SC01, PES06-SC05	374.059 (182)	2.055	.976	.932	0.048
Perceived social support	3	N/A	N/A	N/A	N/A	N/A	N/A	.709
Perceived interactivity	3	N/A	N/A	N/A	N/A	N/A	N/A	.426
Sense of online brand community	13	SOBC01, SOBC02, SOBC05, SOBC17	SOBC02-SOBC03, SOBC04-SOBC05, SOBC06-SOBC07, SOBC08-SOBC09, SOBC10-SOBC11, SOBC13-SOBC14, SOBC14-SOBC15	227.435 (75)	3.554	.978	.941	.074

Table 14. (continued)

Construct	Number of items	Item dropped	Error terms correlated	χ^2 (df)	χ^2/df	CFI ²	GFI ³	RMSEA ⁴
Consumer-brand relationships	6	CBR03, CBR05	CBR01- CBR08	4.886(4)	1.221	.997	.987	.022
Brand commitment	4	N/A	BC01-BC04	1.482(1)	1.482	1.000	.998	.032
Brand advocacy	5	N/A	WOM05- WOM04	14.678(4)	3.669	.996	.988	.076
Brand preference	4	N/A	BF02- BF03	1.499(1)	1.499	1.000	.998	.033
BSN engagement	4	N/A	BE01-BE-02	3.399(1)	3.399	.999	.996	.072
Behavioral loyalty	3	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Measurement Model Evaluation

Confirmatory Factor Analysis (CFA) is completed for the proposed 9 constructs including 66 manifestos except Individual Characteristic which have a single measurement item. Correlation matrix of constructs is presented in Table 15.

Table 15. Correlation matrix of constructs

Construct	NFA	PS	PI	SOBC	CBR	BC	BA	BP	BL
NFA	1								
PS	0.556	1							
PI	0.495	0.658	1						
SOBC	0.545	0.861	0.545	1					
CBR	0.491	0.645	0.608	0.820	1				
BC	0.408	0.642	0.577	0.782	0.873	1			
BA	0.345	0.343	0.633	0.479	0.648	0.651	1		
BP	0.362	0.443	0.514	0.556	0.682	0.649	0.616	1	
BL	0.172	0.262	0.259	0.373	0.410	0.442	0.372	0.493	1

Note:

NFA: Need for affiliation, PS: Perceived social support, PI: Perceived interactivity, SOBC: Sense of online brand community, CBR: Consumer brand relationships, BC: Brand commitment, BA: Brand advocacy, BP: Brand preference, BL: Behavioral loyalty

At this stage, the evaluation of measurement model is completed. χ^2 statistic, χ^2 / df ratio, CFI, Tucker-Lewis Index (TLI), NFI, RMSEA, and P-value are assessed to evaluate the fit of the whole model. Overall, the fit of the initial stage of measurement model exhibits a moderate fit with $\chi^2=4326.968$, $\chi^2/df=2.435$, CFI=.909, NFI=.855, TLI=.903, and RMSEA=.056 as shown in

Table 16. Fit statistics of measurement model: *initial stage*

Sample	χ^2 (df)	χ^2/df	CFI	NFI	TLI	RMSEA
Total (N=466)	4326.968 (1777)	2.435	.909	.855	.903	.056

***P < .000

Model Improvement

To improve the measurement model, standardized regression weights (lambda), standardized residual covariance, and modification indices are evaluated. All measurement items present significant standardized regression weights ranging from 0.596 to 0.919, which are significantly higher than the threshold value (values >0.4) (Bryne, 2001). The researcher finds several items with high scores of standardized residual covariance. SOBC01, SOBC03, and SOBC11 for sense of brand community, CBR07 for consumer-brand relationship, and WOM 03, WOM04, and WOM05 for brand advocacy are removed due to high level of standardized residual covariance and M.I. with multiple items.

When theoretical or empirical evidence supports possible sharing effects between items, correlating error terms within factor is justified (Gerbing & Anderson, 1984). Therefore, twenty six pairs with high MI (values > 10) are correlated to improve the model fit. As the individual characteristics construct (IC) has a single measurement item after dropping one time from the preliminary analysis, the IC construct is not included in measurement modeling. The fit statistics of final measurement model is shown in Table 18.

The final measurement model is composed of eight constructs with 52 observed variables. Factor loadings of all items range from 0.568 to 0.945 and all paths are significant at 0.001 level (p<0.001). The composite reliability of each construct ranges from 0.710 to 0.971, satisfying the minimum criteria of 0.70 (Nunnally & Berstein, 1994). The fit statistics from final measurement

model are exhibited in Table 18: χ^2 (1339) =2609.013, χ^2/df =1.948, CFI=.947, NFI=.897,

TLI=.941, and RMSEA=0.045, indicating a satisfactory fit of the measurement model.

Factor loadings, composite reliabilities, and fit statistics of the final measurement model are presented in Table 19.

Table 17. Modifications

Construct	Modification
Perceived social support	SO01: dropped due to high standardized residual covariance and high MI (>20).
Consumer brand relationships	CBR07: dropped due to high MI
Sense of online brand community	SOBC01, SOBC03, SOBC11: dropped due to high standardized residual covariance and M.I.
Brand advocacy	WOM3, WOM04, WOM05: dropped due to high standardized residual covariances and M.I.s
Brand commitment	BC03: dropped due to high standardized residual covariance and MIs.

Table 18. Fit statistics of measurement model: refined model

Sample	χ^2 (df)	χ^2/df	CFI	NFI	TLI	RMSEA
Total (N=466)	2609.013(1339)	1.948	.947	.897	.941	.045

***P < .000

Table 19. Final measurement model: factor loadings and reliability

Construct	Scale Item	Factor loading	t-value	Composite reliability
Need for affiliation	• ES01: If I feel unhappy or kind of depressed, I usually try to be around other people to make me feel better.	0.765	17.810***	0.898
	• ES02: I usually have the greatest need to have other people around me when I feel upset about something.	0.834	19.628***	
	• ES03: One of my greatest sources of comfort when things get rough is being with other people.	0.922	22.703***	
	• ES04: When I have not done very well on something that is very important to me, I can get to feeling better simply by being around other people.	0.863	20.779***	
	• ES05: During times when I have to go through something painful, I usually find that having someone with me makes it less.	0.777	-	
	• ATT01: I often have a strong need to be around people who are impressed with what I am like and what I do.	0.885	13.232***	

Table 19. (Continued)

Construct		Scale Item	Factor loading	t-value	Composite reliability
		<ul style="list-style-type: none"> ATT02: I mainly like be around others who think I am important and exciting person. 	0.906	13.201***	
		<ul style="list-style-type: none"> ATT05: I don't like being with people who may give me less than positive feedback about myself. 	0.568	-	
		<ul style="list-style-type: none"> PS01: I think being close to others, listening to them, and relating to them on a one-to-one level is one of my favorite and most satisfying pastimes. 	0.693	16.639***	
		<ul style="list-style-type: none"> PS02: Just being around others and finding out about them is one of the most interesting things I can think of doing. 	0.786	19.425***	
		<ul style="list-style-type: none"> PS03: I feel like I have really accomplished valuable when I am able to get close to someone. 	0.775	19.087***	
		<ul style="list-style-type: none"> PS04: One of the most enjoyable things I can think of that I like to do is just watching people and seeing what they are like. 	0.679	16.054***	
		<ul style="list-style-type: none"> PS05: I would find it very satisfying to be able to form new friendships with whomever I liked. 	0.784	19.790***	
		<ul style="list-style-type: none"> PS06: I seem to get satisfaction from being with others more than a lot of other people do. 	0.828	21.805***	
		<ul style="list-style-type: none"> PS07: I think it would be satisfying if I could have very close friendships with quite a few people. 	0.795	20.302***	
		<ul style="list-style-type: none"> PS08: The main thing I like about being around other people is the warm glow I get from contact with them. 	0.849	26.018***	
		<ul style="list-style-type: none"> PS09: I think get satisfaction out of contact with others more than most people realize. 	0.832	-	
		<ul style="list-style-type: none"> SC01: when I am not certain about how well I am doing at something, I usually like to be around others so I can compare myself to them. 	0.781	18.198***	
		<ul style="list-style-type: none"> SC03: If I am uncertain about what is expected of me, such as on a task or in a social situation, I usually like to be able to look to certain others for cues. 	0.732	17.043***	
		<ul style="list-style-type: none"> SC04: I prefer to participate in activities alongside other people rather than by myself because I like to see how I am doing on the activity. 	0.804	19.402***	
		<ul style="list-style-type: none"> SC05: I find that I often have the desire to be around other people who are experiencing the same thing I am when I am unsure of what is going on. 	0.810	-	
Perceived exchange support	Perceived social support	<ul style="list-style-type: none"> SO02: There are other members with whom I can share my joys and sorrows in the [XYZ brand] Facebook Page. 	0.920	20.723***	
		<ul style="list-style-type: none"> SO03: I have other members in the [XYZ brand] Facebook Page who are a real source of comfort to me. 	0.788	-	

Table 19. (Continued)

Construct		Scale Item	Factor loading	t-value	Composite Reliability
	Perceived interactivity	<ul style="list-style-type: none"> PES01: There are other members who are around the [XYZ brand] Facebook Page when I am in need 	0.727	14.953***	0.830
		<ul style="list-style-type: none"> PES02: There are other members with whom I can share my joys and sorrows in the [XYZ brand] Facebook Page. 	0.850	16.887***	
		<ul style="list-style-type: none"> PES03: I have other members in the [XYZ brand] Facebook Page who are a real source of comfort to me. 	0.780	-	
Consumer-brand relationships		<ul style="list-style-type: none"> CBR01: I have a special bond with [XYZ brand] that I like. 	0.889	24.936***	0.947
		<ul style="list-style-type: none"> CBR02: I consider my favorite brands such as [XYZ brand] to be a part of myself. 	0.895	24.936***	
		<ul style="list-style-type: none"> CBR04: Part of me is defined by important brands like [XYZ brand] in my life. 	0.895	25.391***	
		<ul style="list-style-type: none"> CBR06: I can identify with important brands such as [XYZ brand] in my life. 	0.762	25.123***	
		<ul style="list-style-type: none"> CBR08: My favorite brands such as [XYZ brand] are an important indication of who I am. 	0.899	28.923***	
Sense of online brand community		<ul style="list-style-type: none"> SOBC04: The friendships and associations I have with other members in the [XYZ brand] Facebook Page mean a lot to me. 	0.879	27.466***	0.951
		<ul style="list-style-type: none"> SOBC06: If the people in the [XYZ brand] Facebook Page were planning something I'd think of it as something "we" were doing rather than "they" were doing. 	0.778	21.435***	
		<ul style="list-style-type: none"> SOBC07: If I needed advice about something I could ask someone in the [XYZ brand] Facebook Page. 	0.815	23.409***	
		<ul style="list-style-type: none"> SOBC08: I think I agree with most people in the [XYZ brand] Facebook Page about what is important in life. 	0.884	26.563***	
		<ul style="list-style-type: none"> SOBC09: I feel loyal to other members in the [XYZ brand] Facebook Page. 	0.842	25.155***	
		<ul style="list-style-type: none"> SOBC10: I exchange information with other members in the [XYZ brand] Facebook Page. 	0.822	24.024***	
		<ul style="list-style-type: none"> SOBC12: I believe the people in the [XYZ brand] Facebook Page would help me in an emergency matter. 	0.801	22.740***	
		<ul style="list-style-type: none"> SOBC13: I like to think of myself as similar to other members who visit the [XYZ brand] Facebook Page. 	0.822	28.462***	
		<ul style="list-style-type: none"> SOBC14: A feeling of fellowship runs deep between me and other people in the [XYZ brand] Facebook Page. 	0.886	32.154***	
		<ul style="list-style-type: none"> SOBC15: I regularly visit and talk with the people in the [XYZ brand] Facebook Page. 	0.880	-	
		<ul style="list-style-type: none"> SOBC16: Participating in the [XYZ brand] Facebook Page gives me a sense of community. 	0.952	-	

Table 19. (Continued)

Construct	Scale Item	Factor loading	t-value	Composite reliability
Brand commitment	• BC02: The relationship with [XYZ brand] is very important to me.	0.953	45.773***	0.901
	• BC03: I would make a great effort to maintain my relationship with [XYZ brand].	0.939	-	
Brand advocacy	• WOM01: I am willing to encourage individuals to do business with [XYZ brand].	0.870	22.753***	0.877
	• WOM02: I am willing to recommend [XYZ brand] whenever anyone seeks my advice.	0.591	-	
Brand preference	• BF01: I will continue to do business with [XYZ brand] even if its price increase somewhat.	0.791	21.024***	0.710
	• BF02: I will pay a higher price than what competitors charge for the benefits I currently receive from [XYZ brand].	0.781	19.156***	
	• BF04: I will purchase [XYZ brand] even if other brands are lower priced.	0.510	-	
Behavioral loyalty	• BL01: What percentage of your total expenditure for products/services do you spend with [XYZ brand]? <i>(Please enter a number between 1 and 100)</i>	0.536	9.564***	0.736
	• BL02: Of the 10 times, how many times do you choose [XYZ brand]? <i>(Please enter a number between 1 and 10)</i>	0.781	8.857***	
	• BL03: How often do you select [XYZ brand] compared to other brands when you purchase products/services?	0.787	-	

Note:

***significant at 0.001-level

Construct Validity

The construct validity for the latent construct is evaluated by convergent validity and discriminant validity. Convergent validity is satisfied when a measure is correlated with other measures within a construct as theoretically predicted. Also, convergent validity is validated when all items are statistically significant with the loadings equal or greater than 0.70 (Nunnally & Berstein, 1994; Kline, 2005). In the measurement model of this study, factor loadings for all measurement items are greater than 0.70 at significant p-value (>0.001) except for BL01 item which is adopted different level of scales (see Table 20). In addition to evaluating the standardized factor loading, average variance extracted (AVE) is evaluated for all latent

variables. As shown in Table 20, AVEs for all latent variables range from 0.55 to 0.91, exceeding the minimum requirement of 0.50 (Fornell & Larcker, 1981).

The discriminant validity is tested to assure that each indicator of a construct does not measure other constructs. In this study, AVEs and the shared variance (i.e., squared correlation coefficient) are compared to evaluate discriminant validity for all possible pairs of latent constructs (Fornell & Larcker, 1981). AVEs for most pairs in this study are greater than each pair of squared correlation, supporting discriminant validity. However, the relationship between PS and CBR is highly correlated and the value of shared variance is marginally greater than its AVE (see highlight in Table 20). PS measures perceived support from others, and measures of SOBC involve sense of belonging to a community, including sense of presence of others in the community. Hence, the similarities between these constructs seem to have generated high correlation

Table 20. Construct validity¹ of the final measurement model

Construct ²	NFA	PI	PS	SOBC	CBR	BC	BA	BP	BL
NFA	0.69								
PI	0.13	0.62							
PS	0.32	0.48	0.73						
SOBC	0.31	0.31	0.74	0.72					
CBR	0.24	0.37	0.40	0.63	0.78				
BC	0.18	0.26	0.40	0.61	0.77	0.91			
BA	0.12	0.39	0.12	0.19	0.45	0.45	0.82		
BP	0.03	0.26	0.17	0.30	0.50	0.43	0.33	0.71	
BL	0.14	0.07	0.08	0.15	0.18	0.20	0.13	0.27	0.55

Note:

1. Diagonal entries indicate the average variance extracted (AVE) for each construct, and off-diagonal entries reflect the variance shared (i.e., squared correlation) between constructs

2. NFA: Need for affiliation, PI: Perceived Interactivity PS: Perceived social support, SOBC: Sense of online brand community, CBR: Consumer brand relationships, BC: Brand commitment, BA: Brand advocacy, BP: Brand preference, BL: Behavioral loyalty

Structural Model Evaluation

The proposed model and the hypothesized relationships among constructs are tested in the structural model. The model fits data well as supported by $\chi^2 (1370) = 2943.186$, $\chi^2/df = 2.148$, CFI=0.934, TLI=0.928, and RMSEA=0.050. The results of hypothesis testing and fit statistics for the structural model are presented in Table 21 and Table 22.

Table 21. The fit statistics of structural model

Sample	χ^2 (df)	χ^2/df	CFI	TLI	REMSEA
Total (n=466)	2943.186 (1370)	2.148	0.934	0.928	0.050

Table 22. Structural model: hypothesis testing and fit statistics

Hypothesis		Structural Path	Standardized Estimate	Standard Error	t-value	Result
H1	H1a (+)	Need for affiliation → emotional support	0.712	-	-	Supported
	H1b (+)	Need for affiliation → Attention	0.817	0.095	9.701***	Supported
	H1c (+)	Need for affiliation → Positive stimulation	0.830	0.086	14.474***	Supported
	H1d (+)	Need for affiliation → Social comparison	0.946	0.109	12.578***	Supported
H2(+)		Need for affiliation → SOBC	0.018	0.062	0.501	Not supported
H3(+)	H3a(+)	Perceived social support → SOBC	0.038	0.057	11.110***	Supported
	Hb(+)	Perceived interactivity → SOBC	-0.208	0.082	-3.971***	Not supported
H4(+)		Individual characteristics → SOBC	-0.924	175.938	0.699	Not supported
H5(+)		Consumer-brand relationships → SOBC	0.489	0.051	11.550***	Supported
H6(+)		Consumer-brand relationships → Brand commitment	0.740	0.055	15.234***	Supported
H7(+)		SOBC → Brand commitment	0.187	0.040	4.390***	Supported
H9	H9a(+)	Brand commitment → Brand advocacy	0.675	0.032	13.965***	Supported
	H9b(+)	Brand commitment → Brand Preference	0.669	0.032	13.965***	Supported
	H9c(+)	Brand commitment → Behavioral Loyalty	0.452	0.623	7.085***	Supported

Note:

*** Significant at 0.0001-level ($p < 0.001$)

HYPOTHESES TESTING

H1a-d: Need for affiliation → four constructs of (a) Emotional support, (b) Attention, (c) Positive stimulation, and (d) social comparison.

As a second order factor, the path weights of all sub-hypotheses of H1 are significant at $p < 0.001$, which supports the need for affiliation as a second-order factor with four sub-dimensions, including emotional support, attention, positive stimulation, and social comparison ($ES\beta = 0.712$, $ATT\beta = 0.817$, $PS\beta = 0.830$, $SC\beta = 0.946$, $p < 0.001$). Thus, H1a-d are supported.

H2: Need for affiliation → Sense of online brand community.

The relationship between need for affiliation and sense of online brand community is not significant, rejecting H2 ($\beta = 0.018$, $p = 0.501$).

H3: (a) Perceived social support and (b) perceived interactivity → Sense of online brand community.

H3 tests the effects of perceived social support (a) and perceived interactivity (b) on sense of online brand community. Both of path weights ($\beta = 0.489$ and $\beta = 0.740$, $p < 0.001$ for perceived support and perceived interactivity, respectively) are significant, but the path weight of perceived interactivity on SOBC is negative, which resulting in rejection of H3b.

H4: Individual characteristics → Sense of online brand community.

The effect of individual characteristics on sense of online brand community is not supported. The path weight, standard error, and significance of this construct are very poor, rejecting H4 ($\beta = -0.924$, $p = 0.699$).

H5: Consumer-brand relationships → Sense of Online brand community.

H5 tests the effects of consumer-brand relationships on sense of brand community. The path weight of H5 is significant, supporting H5 ($\beta = 0.489$, $p < 0.001$).

H6: Consumer-brand relationships → Brand commitment.

H6 tests the effect of consumer-brand relationship on brand commitment. The relationship between CBR and BC is positive and significant ($\beta=0.740$, $p<0.001$).

H7: Sense of online brand community → Brand commitment.

The relationship between sense of online brand community and brand commitment is positive and significant, which supported H7 ($\beta=0.187$, $p<0.001$).

H8: Moderating effect of consumer engagement in BSN on the relationship between sense of online brand community and brand commitment.

The moderating effect is tested through multi-group SEM analysis by splitting the sample into sub-groups based on median-value as such: low or high. The sub-group method is a commonly used method for detecting moderating effects (De Wulf et al., 2001). Four questions of BSN engagement were measured on a 7-point Likert scale from (1) *strongly disagree* to (7) *strongly agree*. To compare groups, the responses are totaled and calculated mean score (mean=4.25), indicating that the data being moderately skewed toward BSN engagement among respondents. Considering the sample size in each group and its skewness, median split method is chosen to classify respondents into two groups. Therefore, the respondents who rate more than the median score ($\tilde{x}=4$) are categorized into “high” group ($n=214$), on the other hand, the respondents who rate less than the mean score ($n=252$) are categorized into the “low” group.

To test the difference between two models (high vs. low), an unconstrained model is examined firstly. For the “low BSN engagement” group, all regression paths are significant at 0.001-level except for the path between NFA → SOBC, which indicates insignificant relationship between two constructs same as the result of H2. For the “high BSN engagement” group, all regression paths are significant except for NFA → SOBC at 0.001-level.

To test the hypothesized relationship that BSN engagement moderates the relationship between SOBC and BC, a second nested group model is developed and constrained as equal

across the two groups to conduct comparative analysis. The chi-square difference ($\Delta\chi^2$) tests are conducted to examine whether there are group differences between low and high groups. When there are significant differences between the fully constrained model (i.e., each path between high group and low group being set to equal. The fit statistics for the fully constrained model are $\chi^2=5126.050$, $df =2786$, χ^2 /df ratio= 1.840, CFI = 0.882, NFI = 0.775, RMSEA = 0.047. Next, all paths except for the structural path from SOBC to BC (i.e., all paths are constrained to be equal across high and low group except for SOBC→ BC was freely estimated) are constrained to test the effects of BSN engagement. The results reveal that there is difference between two models, supporting H8. The fit statistic of second model is $\chi^2=5721.436$, $df =2798$, χ^2 /df ratio=2.045, CFI = 0.852, NFI = 0.749, RMSEA = 0.047. The chi-square difference test between the fully constrained model and the model with a free estimate between SOBC and BC reveals the moderating effects of BSN engagement among the customers (see Table 23).

Table 23. Moderating effect of BSN engagement

Structural Path	Standardized regression weight		χ^2 difference ($\Delta\chi^2$) (df=1)	Result
	High group	Low group		
Sense of online brand community → Brand commitment	0.703	0.086	101.567	Supported

*** Significant at 0.001-level.

H9a-c: Brand commitment → (a) Brand advocacy, (b) Brand preference, and (c) Behavioral loyalty.

H9 tests the effects of brand commitment to brand advocacy (H9a), brand preference (H9b), and behavioral loyalty (H9c). All paths of the H9 are significant as following: brand advocacy ($\beta=0.675$, $P<0.001$), brand preference ($\beta=0.669$, $p<0.001$), and behavioral loyalty ($\beta=0.425$, $p<0.001$). Thus, H9 is supported.

Figure 4 presents the results of path analyses.

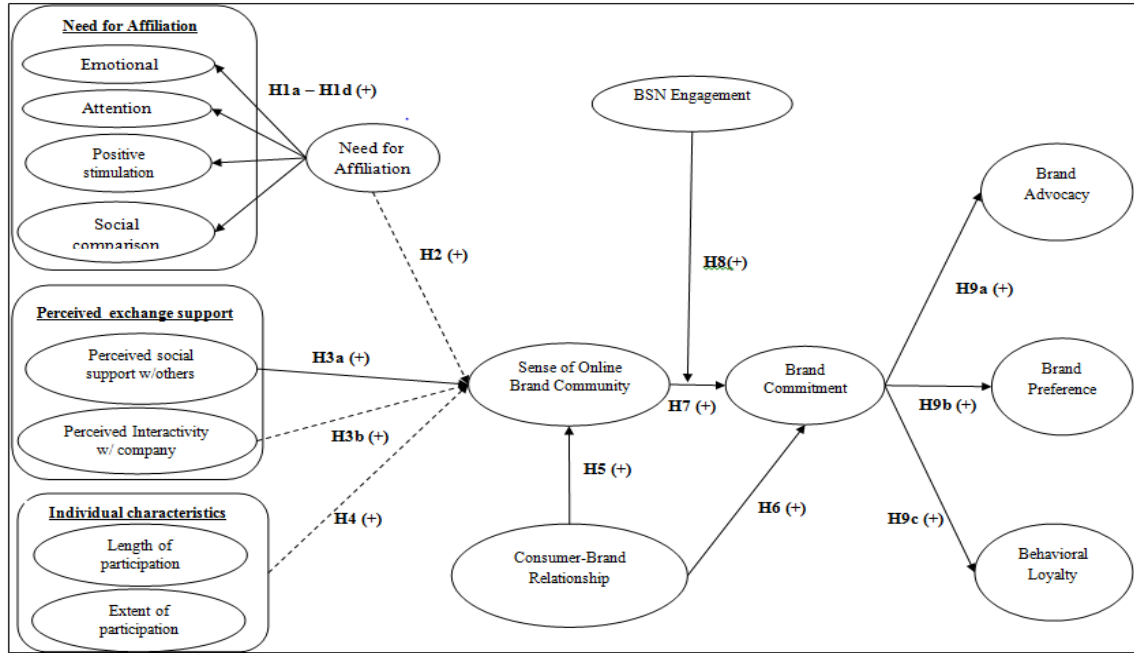


Figure 4. Results of path analyses

CHAPTER V: DISCUSSION AND IMPLICATIONS

This research explores the phenomenon of business- or brand-related social networking (e.g., Facebook Brand Page). In particular, the research attempts to scrutinize whether a sense of online brand community, which has been an important factor in community building in general, can be built and determine consumers' brand-relevant psychological and behavioral outcomes such as brand commitment, advocacy, and behavioral loyalty. This study develops a conceptual framework and a research model that depicts determinants and outcomes of a sense of online brand community. This chapter discusses findings from this study and draws academic and practical implications. The next section presents limitations of this study and suggests future research direction with a conclusion.

DISCUSSION

This study proposes the existence of a sense of community in the context of brand social networking in social media platforms (Carlson et al., 2008). In particular, this study aims to

examine effects of multiple antecedents such as need for affiliation (Hill, 1987), perceived exchange support from others and the community (Wellman & Gulia, 1999a), individual characteristics (McMillan & Chavis, 1986), and the consumer-brand relationship (Fournier, 1998) on developing a sense of online brand community among participants. The results of structural equation modeling reveal that perceived social support and consumer-brand relationship determine respondents' SOBC. In contrast, the need for affiliation and perceived interactivity are found to be insignificant in predicting SOBC. This result can be explained by the nature of individual participation in social media.

Interestingly, respondents' brand-specific needs include perceived interactivity with the company and perceived social support from other customers for the brand, but only perceived social support has significant influence on building a sense of online brand community. While participants in the Facebook Brand Pages do not seek for fast responses from the company or other customers, they tend to visit the Facebook Brand Page to be in social setting (Bins, 2011; Davidson & Cotter, 1991).

Individual characteristics such as the length and the extent of participation in a Facebook Brand Page do not have impacts on developing sense of online brand community, which reflects recent adoption of Facebook Brand Page among the participants. Although traditional community psychology literature has indicated the effects of individual characteristics such as length of residence on building sense of community, about 83% of participants in this study are inexperienced by spending less than 5 hours a week on Facebook Page. The results of individual characteristic are acceptable because it reflects recent emergence of Facebook Page.

General consumer-brand relationship has a significant effect on building a sense of online brand community, which in turn, create the consumers' committed behaviors that ultimately generates profits.

Effects of Need for Affiliation as a Multidimensional Construct

A multidimensional construct is a latent model, which has common factors underlying its dimensions (Law, Wong, & Mobley, 1998). According to Johnson and Johnson (1989), the need for affiliation is a set of personality traits that can be developed throughout life by interacting with others. As the NFA is closely related to individual's motivation, cognitions, and emotion in conjunction with the social setting, the researchers developed NFA with a multi-dimensional construct that reflects specific desires for social contacts (Hill, 1987).

In this study, NFA is adopted to investigate whether individuals who have strong desires to be with others influenced building sense of community in a social media setting. The results from this study indicate that the NFA is found to be positively and significantly reflected in the four sub-dimensions of emotional support ($\beta=0.712$), attention ($\beta=0.817$), positive stimulation ($\beta=0.830$), and social comparison ($\beta=0.946$) in the structural model. The result confirmed the findings from the previous literature (Nikitin & Freund, 2008).

Within the context of social media, the results provide an opportunity for marketers and researchers to understand consumer behavior in a new venue of communication platform. Although the NFA is widely used in traditional off-line community setting, it is also applicable to understand customers in a social media setting. In addition, the NFA has been widely adopted in sociology and psychology, but the results reveals that this construct also is appropriate to understand consumers' desires which include concern of rejection from others, preference for

social contacts, and alleviation of negative emotional experience by receiving support from others (Hill, 1996).

Effects of Need for Affiliation on Sense of Online Brand Community

Findings from this study indicate that effects of NFA on SOBC are not statistically significant ($\beta = -0.208$). Despite the confirmation of a positive relationship between NFA and SOC in the previous studies of community psychology, the association between NFA and SOBC is not found in a social media setting. Nevertheless, this finding provides useful insights to marketers and researchers. Aforementioned, NFA particularly addresses generic personal desires to establish social relationships with others to receive emotional support, to increase self-esteem, and to have a feeling of comfort through confirmation from others. The results of the measurement model indicates that individuals have generic personality that can be developed through continuous social contacts, but those desires do not lead individuals to have feeling of belonging to a brand-specific community in a social media setting.

There are several possible reasons that can be assumed from this result. First, the NFA is originally developed in psychology literature and has been adopted in investigating personality development. This generic personality measures may need an additional mediator that connects to sense of online brand community. Although the results of the measurement model indicate that participants have NFA, lack of association between NFA and SOBC is found. To fill this gap, a future study is encouraged by employing additional mediator in the relationship between NFA and SOBC. For instance, questions about general Facebook participation can serve as a bridge between general personality measures and intention to participate in Facebook Brand Page by developing a feeling of belonging.

Second, the results suggest that individuals still look for others' acceptance and have desires to be with others, but those desires are not directly related to make them feel a sense of belonging in the Facebook Brand Page. In other words, individuals are in need of social contacts with others, but they do not want to have continuous interactions with others including the company. The participants tend to shortly browse a certain Facebook Brand Page, which does not give them enough time to establish relationships with others. This result implies that consumers are self-centered, and they desire not to have obligations from any communities. Consequently, marketers should develop strategies that can lead consumers to stay in their social networking sites longer than other competitors. Providing discount deals or exclusive deals does not help in consumer satisfaction through Facebook Brand Page participation. Instead of providing benefits that can be achieved shortly, marketers should focus on providing long-term benefits such as exchanging opinions about new products or creating a forum among the customers that may develop more meaningful relationships with their customers (Brandtzaeg & Luders, 2010).

Effect of Perceived Exchange Support on Sense of Online Brand Community

Perceived exchange support is conceptualized with perceived social support and perceived interactivity. In this study, perceived exchange support includes measures that assess the perceived social support and the perceived interactivity in order to depict how individuals' awareness of others impacts on building SOC in the social media setting. The perceived social support addresses individuals' perception of social support. This concept is widely studied in clinical psychology to understand the impacts of others' presence in the process of developing personality (Shumaker & Brownell, 1984). While perceived social support illustrates the importance of others, perceived interactivity highlights individuals' ability to control, to interact,

and to manage a web-site. In particular, this study adopts individuals' awareness of perceived responsiveness from others and the company officials in timely manner on a matter of urgency (Wu, 2006). Since the nature of social media lies in continuous interactivity and two-way communications, the researchers are expected to confirm a positive relationship between PES and SOBC. However, the results of this study were mixed.

First, the perceived social support on the SOBC is supported ($\beta=0.038$). The result indicates that the awareness of others in the Facebook Brand Page positively and significantly influences building sense of belonging in the social media setting. This finding suggests that presence of others in Facebook Brand Page is critical to make the customers feel a sense of belonging in the community. In other words, it is not sure that the customers who browse the Facebook Brand Page seek for the help from the company officials, but they consider Facebook Page as sources of help, comfort, and sharing of personal feeling. This gives important implications to marketers. Social media marketers should try to cultivate a cooperative culture among customers in their Brand Social Networking because the social media is open to everyone, which includes customers and employees. In this regard, marketers should develop a friendly and interactive environment that people can connect to each other and share brand information in causal setting.

Second, the perceived interactivity has significant negative effects on building sense of online brand community. That is, responsiveness of others including the company officials or other consumers about the product or service questions is negatively associated with the SOBC. A possible explanation of this result is that consumers possibly visit Facebook Brand Page to seek social contacts, instead of pursuing functional purposes.

Third, further examination of the result recommended the statistical issues (Cohen & Cohen, 1975). Since PI had high correlations with SOBC ($\gamma=0.861$), presence of suppressor effects can be found (Cohen & Cohen, 1975). The suppression occurs when predictor variables have high correlation and have communality between the predictors, not with dependent variables (Hicks & Patrick, 2006). As a result, conducting the regression model with high correlated variables may lead to an increase of the beta coefficient for other predictor. In this case, a negative beta coefficient of PI ($\beta=-0.208$) and positive correlation between PI and SOBC ($\gamma=0.861$) can occur due to a negative net suppression (Krus & Wilkinson, 1986).

This provides important implications to marketers. If a company establishes a Facebook Page for functional purposes to distribute information or to respond to questions from the customers, it may not be effective to engage the consumers in the long-run. Utilizing the Facebook Page for a functional purpose, such as or additional communication channel for communication purpose may not have a strong motivation for the consumers to engage in active relationship building with other consumers. Therefore, marketers should make a balance when they develop a Facebook Page to facilitate emotional connections among the consumers.

Effect of Individual Characteristics on Sense of Online Brand Community

There are no significant impacts of individual characteristics on sense of online brand community ($\beta=-0.924$). Although previous studies indicate strong effects of individual characteristics on developing a feeling of belonging in a community, the results of this study are opposite to the findings from the existing literature. The relationship between individual characteristics and sense of online brand community is negatively related and is not significant. There are several reasons why the result of this construct is not supported. First, the individual characteristics have few measurement items. The IC is originally developed with three

measurement items, but this study only adopts two measures that are appropriate to assess individuals' length of participation in the Facebook Brand Page. Moreover, the exploration of the data suggests the elimination of one item due to lack of fit with the whole model. The extent of participation is highly skewed (2.823) and has high kurtosis (7.862). In order to fix this issue, the researcher tries to refine the measurement item by employing the variable transformation method. However, it does not improve the fit of the measurement model. Thus, the extent of participation of a certain Facebook Brand Page which causes a poor fit of the measurement model is dropped. It makes sense that most social media users do not spend a lot of time to browse one specific Page. A recent industry report supports the result of this study. According to their report, users of Facebook only spend about 20 minutes per page, and move to other pages quickly (Infographic, 2012). Therefore, the finding of this research demonstrates the need to make Facebook Brand Page interesting to attract consumers to stay longer.

Furthermore, having only two measurement items in the Individual Characteristic's construct are plausible, contributing a problematic statistical result. Kline (2005) claims that the construct with two or less indicators possibly causes some estimation problem when one tries to identify a research model. Given this methodological limitation, future research is encouraged to develop other measures or to add more measurement items. For example, McMillan and Chavis (1986) assert that individual characteristics such as age, length of residence, community size, and number of residence influence building SOC (Sarason, 1974). However, this research only examines two items which cause the statistical issues. Therefore, the inclusion or more variables in the future study is encouraged.

All in all, the results of H4 are not supported. Findings demonstrate that most participants in social media spend less than 5 hours per week, which may not be enough to establish

relationships with others. This represents the nature of social media as well as the users of social media.

Effects of Consumer-Brand Relationship on Sense of Online Brand Community

The result of this study shows that respondents' perceived relationship and the brand positively influence sense of online brand community, which ultimately develops behavioral and attitudinal loyalty. As the concept of CBR is built upon the self-identity theory that provides an explanation of individuals' identity establishment process, it is adopted to explain how self-identification with the brand leads to the development of sense of belonging in social media (Sprott et al., 2009). The evidence of CBR is validated in the analysis and the results suggest that self-identification with the brand and the general relationship with the brand has strong impacts on consumers to establish a relationship with others in a social media setting. This finding confirms that the importance of building relationships with consumers not only through social media platforms but also through overall brand-related activities based on all possible touch-points. The findings of this study help marketers develop appropriate social media strategies. Having a relationship with the brand leads the consumers to visit the social media, implying the needs to develop consistent strategies online and offline (Chu & Kamal, 2012).

Effects of Sense of Online Brand Community on Brand Commitment

This study proposes the impacts of sense of online brand community on various outcome variables. In particular, this study adopts the study by Carlson et al. (2008) which investigates the effects of psychological sense of community on building attitudinal and relational outcomes such as brand commitment, advocacy, and preference. Although previous studies have adopted behavioral loyalty to measure benefits of building a long-term customer relationship, an increasing number of researchers have indicated that behavioral loyalty cannot be enough to

explain the whole scope of the effects of positive long-term customer relationships (Fournier, 1998). In line with this assertion, this study proposes the outcomes of building a sense of online brand community with attitudinal and behavioral loyalty measures. The results reveal that SOBC positively influences the brand commitment, which in turn predict other relational outcomes such as brand preference, advocacy, and loyalty.

The findings give a fresh idea to investigate the effects of social media for marketers and researchers. Since the emergence of Facebook, most marketers and researchers have paid attention on functional benefits, including discounts and coupon offerings, to draw customers to their Brand Pages, but the results demonstrate that building a sense of belonging to the Facebook Page, as well as to others, are important to establish a long-term relationship. Thus, it is recommended that companies identify opportunities to establish emotional relationships with the customers.

The Relationship between Consumer-brand Relationship and Brand Commitment

As consumers establish a strong emotional relationship with the brand by assigning a special meaning to a certain brand, the relationship with the brand creates a sense of online brand community, as well as strengthening brand commitment. The proposed relationship between CBR and BC is significant and positive ($\beta = 0.740$). This finding suggests that building a general relationship with the brand enhances positive emotional feelings towards the Facebook Page and other customers, which in turn create positive long-term customer commitment. Also, this result confirms the idea that consumers who have a personal connection with the brand and who integrates their own self- image with the brand develop a strong bond and demonstrate committed behaviors towards the brand (Bagozzi & Dholoka, 2006).

Effects of Brand Commitment on Relational Outcomes

Brand commitment is found to be a significant predictor of each of the three relational and behavioral outcome variables: *brand advocacy* ($\beta=0.675$), *brand preference* ($\beta=0.669$), and *behavioral loyalty* ($\beta=0.452$). These results confirm the findings from the previous study by Carlson et al. (2008). Thus, the impacts of brand commitment on other behavioral outcomes are supported as expected. The findings from this study validate that relational commitment leads to positive attitudes towards the brand and behavioral actions. The results from this research also provide meaningful insights to explain the effects of strong bonds with the brand. Consumers who consider the brand as important to them tend to continue on pursuing the relationship with the brand. In addition, consumers with strong commitment to the brand are likely to spread positive words about the brand, as well as exhibit behavioral loyalty toward the brand (Hennig-Thurau et al., 2001). Lastly, the results reflect that emotionally attached consumers with the brand prefer the brand over others in an actual purchase situation. Therefore, it is important to note that building affective relationships with the brand may lead to positive behavioral outcomes in the future.

Practically, marketers should remember that an emotional relationship with the brand in an online and off-line setting with attract the consumers so that they can be advocates for the brand. It is similar to previous studies in customer love (e.g., Carroll & Ahuvia, 2006). In the literature which addresses the affective relationship with the brand, the researchers have shown strong positive impacts of building affective relationship to lead satisfied customers to be loyal to their brand (Fournier, 1998). In a similar way, this study highlights that the customers' affection towards the brand is valid because it predicts attitudinal and behavioral outcomes in a manner consistent with theoretical conceptions.

Moderating Effect of BSN Engagement Behavior

The effects of BSN engagement behaviors on the relationship between sense of online brand community and brand commitment are evaluated through chi-square difference test. The responses for BSN engagement behaviors are grouped as “low” and “high” based on the responses. Results indicate that significant differences between the groups existed in that relationship. Van Doorn et al. (2010) illustrate that tendency to engage in a certain brand or a web-site increases involvement in the community. That is, consumers who are motivated to engage in the Facebook Page tend to have higher commitment than consumers with low BSN engagement motivations. It makes sense that consumers with high involvement in the website may create a feeling of belonging in that community, which in turn, increases positive behavioral outcomes. Thus, marketers should try to lead active engagement of consumers in their Facebook Page in order to establish positive long-term relationships.

LIMITATION AND FUTURE RESEARCH

Although findings from this study provide meaningful insights to academia and marketers, this research presents limitations. First, although the concept of sense of community is prevalent in community psychology literature, the attempt to adopt this theory in consumer behavior is novel. Therefore, further research is needed to replicate and to extend the results with the proposed model. In particular, this study adopts a specific social media platform as well as requesting the respondents to select a certain brand to examine the research model. However, trends and technological specifics of social media change at a rapid pace, so individuals' behavior in social medial settings changes accordingly. Therefore, future research is encouraged to pay careful attention in applying the design of this study that focuses on a specific online social networking site. The researcher expects that applications of the proposed model in this study can be validated in the context of other social media platforms such as micro-blogs (e.g., twitter) and content-sharing (e.g., Pinterest) sites.

Another limitation lies in the process of adapting existing measures from other disciplines. For example, the measures from the previous studies in community psychology are based on a traditional community setting such as residential or campus areas, which involve a great extent of psychical interactions among individuals. Therefore, modifications of measures are inevitable to adjust the measurement items in the context of social media due to distinct characteristics of social media and the traditional off-line community setting. Individuals' perception and behavior in this context may be incomparable to those in traditional brand communities. To overcome this limitation, development of new measures might need to depict individuals' community-related perception and behavior in the social media context.

Lastly, it should be noted that the population of this study tends to be Caucasians (82%), which can cause biased results. It is because the sample is collected through a marketing research company, which is not a truly random population as described in the sampling procedures. Therefore, the researcher should pay attention on generalizing the findings. In this regards, mixed methods that include field observations or qualitative investigation may improve the shortcomings of the data collection process. Also, the sample collection through the marketing research firm results in a high proportion of Caucasian respondents (83.3%). A more representative sample across ethnicity for comparison purposes along with a better understanding of social media marketing success is strongly desired.

CONCLUSIONS

The purpose of this study is to explore the phenomenon of social media, particularly social networking sites. This research begins with the propositions that an individual's desires to be with others are likely to have an impact on developing affective relationships among consumers. Particularly, this study is built upon the premise that an individual's internal desires to be with others (i.e., need for affiliation) and their tendency to participate in a group creates a sense of belonging to the brand and other brand users. In addition to examining individual characteristics for social contacts, this study also investigates the effects of affective relationships on behavioral and attitudinal outcomes such as positive word-of-mouth and behavioral loyalty.

The results from this study demonstrate several contributions for researchers and marketers. First, this research extends the theory of sense of community to the context of social media marketing by demonstrating its effects. It is the first attempt to test a sense of community theory as a mediating variable between individual motivational factors and attitudinal outcomes, and suggests that factors such as perceived social support and general consumer-brand relationship may have important implications as what customers expect from the companies or other customers in the Facebook Brand Pages. The results of this study suggest that consumers seek to establish emotional relationships with others through the Facebook Brand Page participation instead of pursuing functional benefits such as information seeking or exclusive deals. Although most participants demonstrate low-level of participation in Facebook Brand Page (e.g., 82.6% of participants visited the Facebook Brand Page less than 5hrs a week), they feel a sense of belonging to the Facebook Brand Page which indicates their affective connections with other customers and the Facebook Brand Page. Thus, it may provide a strong basis for

future research across a number of other social media platforms and beyond. Thus, effective relationship building in a Facebook Brand Page may guarantee long-term fruitful customer relationships.

Second, the need for affiliation factors do not directly relate to development of sense of community in a Facebook Brand Page, which provides a strong basis for research by adopting possible mediators in future research. The results of the measurement model confirm the strong presence of NFA among the participants, but the results of the structural model indicate an insignificant relationship between NFA and SOBC. This finding provides room for future research by demonstrating an existence of individual desires for social contacts and support. In order to properly examine generic personality, behavioral participations in Facebook may help in verifying the proposed relationship.

Third, researchers and marketers should pay attention to the impacts of an affective relationship with the customers. The results of the structural model indicate insignificant effects of functional factors which include perceived interactivity between the customers and the company. However, perceived social support which assesses awareness of others in Facebook Brand Page, and general relationship between the brand and the customer are identified as important drivers on relationship mediators (i.e., sense of online brand community), which in turn positively influence relational outcomes (i.e., brand commitment, brand advocacy, brand preference, and behavioral loyalty). This finding suggests that customers' motivation to visit Facebook Brand Pages is strongly related to relational support from others. Although the level and length of Facebook participation among the customers had little impact on leading them to have a sense of online brand community, factors that are related to relationship building are

significant, which reflects that individuals seek “instant gratification” through participating or visiting Facebook Brand Page that does not require any obligations in the brand community.

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APPENDICIES

Appendix A: Summary of Final Measures for Main Study

Construct		Measures
Need for affiliation (NFA)	Emotional support (ES)	<ul style="list-style-type: none"> • ES01: If I feel unhappy or kind of depressed, I usually try to be around other people to make me feel better. • ES02: I usually have the greatest need to have other people around me when I feel upset about something. • ES03: One of my greatest sources of comfort when things get rough is being with other people. • ES04: When I have not done very well on something that is very important to me, I can get to feeling better simply by being around other people. • ES05: During times when I have to go through something painful, I usually find that having someone with me makes it less.
	Attention (ATT)	<ul style="list-style-type: none"> • ATT01: I often have a strong need to be around people who are impressed with what I am like and what I do. • ATT02: I mainly like be around others who think I am important and exciting person. • ATT03: I often have a strong desire to get people I am around to notice me and appreciate what I am like. • ATT04: I mainly like people when I can be the center of attention. • ATT05: I don't like being with people who may give me less than positive feedback about myself.
	Positive stimulation (PS)	<ul style="list-style-type: none"> • PS01: I think being close to others, listening to them, and relating to them on a one-to-one level is one of my favorite and most satisfying pastimes. • PS02: Just being around others and finding out about them is one of the most interesting things I can think of doing. • PS03: I feel like I have really accomplished valuable when I am able to get close to someone. • PS04: One of the most enjoyable things I can think of that I like to do is just watching people and seeing what they are like. • PS05: I would find it very satisfying to be able to form new friendships with whomever I liked. • PS06: I seem to get satisfaction from being with others more than a lot of other people do. • PS07: I think it would be satisfying if I could have very close friendships with quite a few people. • PS08: The main thing I like about being around other people is the warm glow I get from contact with them. • PS09: I think get satisfaction out of contact with others more than most people realize.
	Social comparison (SC)	<ul style="list-style-type: none"> • SC01: when I am not certain about how well I am doing at something, I usually like to be around others so I can compare myself to them. • SC02: I find that I often look to certain other people to see how I compare to others. • SC03: If I am uncertain about what is expected of me, such as on a task or in a social situation, I usually like to be able to look to certain others for cues. • SC04: I prefer to participate in activities alongside other people rather than by myself because I like to see how I am doing on the activity. • SC05: I find that I often have the desire to be around other people who are experiencing the same thing I am when I am unsure of what is going on.
Individual Characteristics (IC)*	Length of Participation	<ul style="list-style-type: none"> • IC01: How long have you participated in (i.e., "Liked") the [XYZ brand] Facebook Page? <ul style="list-style-type: none"> ○ Less than 1 month

		<ul style="list-style-type: none"> ○ 1-3 months ○ 3-6 months ○ 6-12 months ○ 1-3 years
	Extent of Participation	<ul style="list-style-type: none"> ● IC02: How long, on average, do you visit, browse, and/or participate in activities in the [XYZ brand] Facebook Page? <ul style="list-style-type: none"> ○ Less than 5 hrs./week ○ 5-9 hrs./week ○ 10-19 hrs./week ○ 20 hrs. or more/week
Perceived Exchange Support (PES)	Perceived Interactivity (PI)	<ul style="list-style-type: none"> ● PES01: I can communicate with the [XYZ brand] company directly for further questions about the company or its products if I wanted to. ● PES02: The [XYZ brand] Facebook Page had the ability to respond to my specific questions quickly and efficiently. ● PES03: I can communicate in real time with other customers who shared my interest in this products category in the [XYZ brand] Facebook Page.
	Perceived social support with others (SO)	<ul style="list-style-type: none"> ● SO01: There are other members who are around the [XYZ brand] Facebook Page when I am in need. ● SO02: There are other members with whom I can share my joys and sorrows in the [XYZ brand] Facebook Page. ● SO03: I have other members in the [XYZ brand] Facebook Page who are a real source of comfort to me.
Sense of Online Brand Community (SOBC)	<ul style="list-style-type: none"> ● SOBC01: Overall, I am very attracted to participate in the [XYZ brand] Facebook Page. ● SOBC02: I feel like I belong to the [XYZ brand] Facebook Page. ● SOBC03: I visit other members' personal profile in the [XYZ brand] Facebook Page. ● SOBC04: The friendships and associations I have with other members in the [XYZ brand] Facebook Page mean a lot to me. ● SOBC05: Given the opportunity, I would like to stay on the [XYZ brand] Facebook Page. ● SOBC06: If the people in the [XYZ brand] Facebook Page were planning something I'd think of it as something "we" were doing rather than "they" were doing. ● SOBC07: If I needed advice about something I could ask someone in the [XYZ brand] Facebook Page. ● SOBC08: I think I agree with most people in the [XYZ brand] Facebook Page about what is important in life. ● SOBC09: I feel loyal to other members in the [XYZ brand] Facebook Page. ● SOBC10: I exchange information with other members in the [XYZ brand] Facebook Page. ● SOBC11: I would be willing to work together with other members on something to improve the [XYZ brand] Facebook Page. ● SOBC12: I believe the people in the [XYZ brand] Facebook Page would help me in an emergency matter. ● SOBC13: I like to think of myself as similar to other members who visit the [XYZ brand] Facebook Page. ● SOBC14: A feeling of fellowship runs deep between me and other people in the [XYZ brand] Facebook Page. ● SOBC15: I regularly visit and talk with the people in the [XYZ brand] Facebook Page. ● SOBC16: Participating in the [XYZ brand] Facebook Page gives me a sense of community. ● SOBC17: I plan to remain on the [XYZ brand] Facebook Page for a number of years. 	
Consumer-Brand Relationship (CBR)	<ul style="list-style-type: none"> ● CBR01: I have a special bond with [XYZ brand] that I like. ● CBR02: I consider my favorite brands such as [XYZ brand] to be a part of myself. ● CBR03: I often feel a personal connection between [XYZ brand] and me. ● CBR04: Part of me is defined by important brands like [XYZ brand] in my life. ● CBR05: I feel as if I have a close personal connection with [XYZ brand] I most prefer. ● CBR06: I can identify with important brands such as [XYZ brand] in my life. 	

	<ul style="list-style-type: none"> • CBR07: There are links between [XYZ brand] that I prefer and how I perceive myself. • CBR08: My favorite brands such as [XYZ brand] are an important indication of who I am.
Brand Commitment (BC)	<ul style="list-style-type: none"> • BC01: I am very committed to maintaining a relationship with [XYZ brand]. • BC02: The relationship with [XYZ brand] is very important to me. • BC03: I would make a great effort to maintain my relationship with [XYZ brand]. • BC04: I do expect this relationship with [XYZ brand] to last a very long time.
Brand Advocacy (WOM)	<ul style="list-style-type: none"> • WOM01: I am willing to encourage individuals to do business with [XYZ brand]/ • WOM02: I am willing to recommend [XYZ brand] whenever anyone seeks my advice. • WOM03: When the topic of a product category which includes [XYZ brand] comes up in conversation. I am willing to go out of my way to recommend [XYZ brand]. • WOM04: I am willing to recommend the product/service of [XYZ brand] to my peers. • WOM05: My recommendations about the products/service of [XYZ brand] provider would have been positive.
Brand Preference (BF)	<ul style="list-style-type: none"> • BF01: I will continue to do business with [XYZ brand] even if its price increase somewhat. • BF02: I will pay a higher price than what competitors charge for the benefits I currently receive from [XYZ brand]/ • BF03: I will consider [XYZ brand] as my first choice for {product/service categories} • BF04: I will purchase [XYZ brand] even if other brands are lower priced.
BSN Engagement (BE)	<ul style="list-style-type: none"> • BE01: I benefit from following the [XYZ brand] Facebook Page. • BE02: I am motivated to participate in the [XYZ brand] Facebook Page activities because I feel better afterwards. • BE03: I am motivated to participate in the [XYZ brand] Facebook Page activities because I am able to support other members. • BE04: I am motivated to participate in the [XYZ brand] Facebook Page activities because I am able to reach personal goals.
Behavioral Loyalty (BL)	<ul style="list-style-type: none"> • BL01: What percentage of your total expenditure for products/services do you spend with [XYZ brand]? (Please enter a number between 1 and 100) • BL02: Of the 10 times, how many times do you choose [XYZ brand]? (Please enter a number between 1 and 10) • BL03: How often do you select [XYZ brand] compared to other brands when you purchase products/services? <ul style="list-style-type: none"> ○ Never ○ Rarely ○ Sometimes ○ Most of the time ○ Always

Note:

* Individual characteristics are measured with two single items: *length of participation and extent of participation*

Appendix B. Main Survey

Dear participants,

I appreciate your participation in this survey. The survey will take about 5-10 minutes to complete. Your participation in this survey is voluntary; you may decline to participate without any penalty. If you wish to withdraw from the survey before data collection is completed, your data will be destroyed. Return of the completed survey or questionnaire constitutes your consent to participate. All responses will be held in confidence by the researcher, Jewon Lyu. If you have questions about your rights as a survey participant, please contact the Office of Research Compliance at the University of Tennessee, Knoxville (Tel: 865-974-3466). You may also contact the researcher at 1215 West Cumberland Avenue, 233C Jessie Harris Building, University of Tennessee or jllyu1@utk.edu.

Thank you.

Please select social media platforms that you have visited. (select all that apply)

- Social networking sites (e.g., Facebook, Google+, LinkedIn, Myspace, Foursquare)
- Blogs and micro-blogs (e.g., Wordpress, Twitter)
- Social photo/video sharing sites (e.g., Pinterest, Flickr, Youtube)
- Collaborative projects (e.g., Wikipedia, Reddit, StumbleUpon)
- Virtual social worlds (e.g., Second Life, FarmVille)
- Virtual game worlds (e.g., World of Warcraft)
- Other (Please specify it)

The following question asks about your general activities on Facebook. Which of the following have you done on Facebook during the past six months?

- Change personal profile information (e.g., add pictures, post messages, modify personal information)
- Browsed any Brand Page on Facebook (e.g., Best-buy, Converse, Coca-cola, Walmart etc.)
- Posted messages/comments/questions on any Brand Page Wall
- Had a chat with a friend
- Browsed special coupons, exclusive deals, and advertisement, etc.
- Clicked "Like" button as a response to any postings by a certain brand or a company
- Became a "Liker" of a certain brand, a company, or a product (i.e., clicked "Like" button on top of the front brand Page)
- Participated in the poll or discussions on any Brand Page
- Other (Please specify it)

Have you been a member (also known as "Liker") of a brand's Facebook Page during the past six months? Being a member of a Brand Page on Facebook means that you have clicked a "Like" button on the certain Brand Page, and you can see the Brand Page's updates on your *News Feed* and participate in activities on the Brand Page without a restriction.

For example, the pictures below are the images of the official Brand Page on Facebook for Converse and Target.



Yes



No



Please select **ONE SPECIFIC BRAND** (e.g., *Gap*) or **A COMPANY NAME** (e.g., *Starbucks*) you visit, browse, and participate in most frequently on Facebook. Please note that it should be a company's official Brand Page on Facebook. A official Brand Page excludes Fan Pages such as a public figure Pages (e.g., Lady Gaga), TV show Pages (e.g., CSI), or sport team Pages (e.g., Real Madrid).

Please think for a moment and write the name in the space below:

How long have you participated in (i.e, "Liked") the Facebook Page?

- less than 1 month
- 1-3 months
- 3-6 months
- 6-12 months
- 1-3 years

How long, on average, do you visit, browse, and/or participate in activities in the Facebook Page per week?

- Less than 5 hrs/week
- 5-9 hrs/week
- 10-19 hrs/week
- 20 hrs or more/ week

	Very Unlikely	2	3	4	5	6	Very Likely
If I feel unhappy or kind of depressed, I usually try to be around other people to make me feel better.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I usually have the greatest need to have other people around me when I feel upset about something.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
One of my greatest sources of comfort when things get rough is being with other people.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
When I have not done very well on something that is very important to me, I can get to feeling better simply by being around other people.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
During times when I have to go through something painful, I usually find that having someone with me makes it less painful.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I often have a strong need to be around people who are impressed with what I am like and what I do.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I mainly like be around others who think I am important and exciting person.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I often have a strong desire to get people I am around to notice me and appreciate what I am like.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I mainly like people when I can be the center of attention.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I don't like being with people who may give me less than positive feedback about myself.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I think being close to others, listening to them, and relating to them on a one-to-one level is one of my favorite and most satisfying pastimes.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Just being around others and finding out about them is one of the most interesting things I can think of doing.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel like I have really accomplished valuable when I am able to get close to someone.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
One of the most enjoyable things I can think of that I like to do is just watching people and seeing what they are like.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I would find it very satisfying to be able to form new friendships with whomever I liked.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I seem to get satisfaction from being with others more than a lot of other people do.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I think it would be satisfying if I could have very close friendships with quite a few people.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The main thing I like about being around other people is the warm glow I get from contact with them.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I think get satisfaction out of contact with others more than most people realize.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
When I am not certain about how well I am doing at something, I usually like to be around others so I can compare myself to them.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I find that I often look to certain other people to see how I compare to others.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
If I am uncertain about what is expected of me, such as on a task or in a social situation, I usually like to be able to look to certain others for cues.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

The following statements relates to your perception toward the Facebook Page. Please indicate the degree of your disagreement or agreement. There are no right or wrong answers.

	Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Agree	Strongly Agree
I can communicate with the company directly for further questions about the company or its products if I wanted to.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The Facebook Page had the ability to respond to my specific questions quickly and efficiently.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I can communicate in real time with other customers who shared my interest in this product category in the Facebook Page.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
There are other members who are around the Facebook Page when I am in need.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
There are other members with whom I can share my joys and sorrows in the Facebook Page.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I have other members in the Facebook Page who are a real source of comfort to me.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am in control of my navigation through the Facebook Page.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I had some control over the content of Facebook Page that I wanted to see.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I was in total control over the pace of my visit to the Facebook Page.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I felt I had a personal conversation with a sociable, knowledgeable and warm representative from the company.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The Facebook Page was like talking back to me while I clicked through the Page.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I consider that the Facebook Page is precise to my information needs.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Below are several items that explore your thoughts and feelings about the Brand Page on Facebook. Please indicate the extent to which you agree or disagree with each statement.

	Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Agree	Strongly Agree
Overall, I am very attracted to participate in the Facebook Page.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel like I belong to the Facebook Page.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I visit other members' personal profile in the Facebook Page.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The friendships and associations I have with other members in the Facebook Page mean a lot to me.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Given the opportunity, I would like to stay on the Facebook Page.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
If the people in the Facebook Page were planning something I'd think of it as something "we" were doing rather than "they" were doing.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
If I needed advice about something I could ask someone in the Facebook Page.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I think I agree with most people in the Facebook Page about what is important in life.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel loyal to other members in the Facebook Page.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I exchange information with other members in the Facebook Page.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I would be willing to work together with other members on something to improve the Facebook Page.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I believe the people in the Facebook Page would help me in an emergency matter.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I like to think of myself as similar to other members who visit the Facebook Page.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
A feeling of fellowship runs deep between me and other people in the Facebook Page.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I regularly visit and talk with the people in the Facebook Page.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Participating in the Facebook Page gives me a sense of community.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I plan to remain on the Facebook Page for a number of years.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Consider the Page on Facebook that you MOST OFTEN visit, browse, and/or participate in. The following section relates to your overall attitude and thoughts about . Please indicate the extent that you 'Agree' or 'Disagree' with the following statements.

	Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Agree	Strongly Agree
I have a special bond with that I like.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I consider my favorite brands such as to be a part of myself.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I often feel a personal connection between and me.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Part of me is defined by important brands like in my life.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel as if I have a close personal connection with I most prefer.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I can identify with important brands such as in my life.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
There are links between that I prefer and how I perceive myself.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My favorite brands such as are an important indication of who I am.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

The following set of statements explore your overall attitude and thoughts about for which you have selected previously. Please indicate the answer that best describes your degrees of agreement or disagreement with the following statements.

	Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Agree	Strongly Agree
I am very committed to maintaining a relationship with	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The relationship with is very important to me.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I would make a great effort to maintain my relationship with .	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I do expect this relationship with to last a very long time.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Below are several items that explore your tendency to share with others. Please indicate the extent of likelihood.

	Very Unlikely	2	3	4	5	6	Very Likely
I am willing to encourage individuals to do business with .	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am willing to recommend whenever anyone seeks my advice.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
When the topic of a product category which includes comes up in conversation, I am willing to go out of my way to recommend .	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am willing to recommend the products/service of to my peers.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My recommendations about the products/service of provider would have been positive.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please indicate your degree of agreement or disagreement with each statement about your intention to do business with

	Very Unlikely	Unlikely	Somewhat Unlikely	Undecided	Somewhat Likely	Likely	Very Likely
I will continue to do business with even if its price increase somewhat.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I will pay a higher price than what competitors charge for the benefits I currently receive from .	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I will consider as my first choice for {product/service categories}.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I will purchase even if other brands are lower priced.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Below are several items to understand your thoughts about the Facebook Page. How much do you agree of the following statements about the Facebook Page activities?

	Strongly Disagree	2	3	4	5	6	Strongly Agree
I benefit from following the Facebook Page.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am motivated to participate in the Facebook Page activities because I feel better afterwards.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am motivated to participate in the Facebook Page activities because I am able to support other members.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am motivated to participate in the Facebook Page activities because I am able to reach personal goals.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

The following items ask about your thoughts about the relationship with company on the Facebook Page. Please indicate the degree of your agreement or disagreement with each statement.

	Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Agree	Strongly Agree
When someone criticizes company in the Facebook Page, it feels like a personal insult.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am very interested in what others think about company in the Facebook Page.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
When someone praises company in the Facebook Page, it feels like a personal compliment.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
When I talk about company in the Facebook Page, I usually say 'we' rather than 'they.'	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The Facebook Page helps me believe that the products/services of the company lead others to view me in the manner that I wish.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The Facebook Page helps me believe that consuming the products/services of the company highlight my personal characteristics.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The Facebook Page helps me believe that the company cultivates the values that I hold in esteem.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Below are several items that explore your thoughts about the relationship with others in the Facebook Page. Please indicate your agreement or disagreement with each statement.

	Not at all	2	3	4	5	6	Very much
How often do you talk about personal things with the staff of through the Facebook Page?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
How close do you feel to the company of Facebook Page?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
How much do you like the company of Facebook Page?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
How important are the company's opinions in the Facebook Page to you?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
How satisfied are you with your relationship with the company through the Facebook Page?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
How much do you enjoy spending time with the company through the Facebook Page?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
How important is your relationship with the company through the Facebook Page?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

What percentage of your total expenditure for products/services do you spend with ?
(Please enter a number between 1 and 100).

Of the 10 times, how many times do you choose ?
(Please enter a number between 0 and 10).

How often do you select compared to other brands when you purchase products/services?

- Never
- Rarely
- Sometimes
- Most of the time
- Always

What is your current age?

- 18 to 19
- 20 to 24
- 25 to 34
- 35 to 44
- 45 to 54
- 55 to 64
- 65 or over

What is the highest level of education you have completed?

- Less than High School
- High School / GED
- Some College
- 2-year College Degree
- 4-year College Degree
- Masters Degree (MS)
- Doctoral Degree (Ph.D.)
- Professional Degree (JD, MD)
- Other (please specify)

What is your ethnic background?

- White/Caucasian
- African American
- Hispanic
- Asian
- Native American
- Pacific Islander
- Other

What is your annual income range (before taxes)?

- Below \$20,000
- \$20,000 - \$29,999
- \$30,000 - \$39,999
- \$40,000 - \$49,999
- \$50,000 - \$59,999
- \$60,000 - \$69,999
- \$70,000 - \$79,999
- \$80,000 - \$89,999
- \$90,000 or more

What best describes the area in which you reside?

- Metropolitan area with population above 250,000 people
- Metropolitan area with population between 100,000 to 249,999 people
- Urbanized area with population between 50,000 to 99,000 people
- Urban cluster that has at least 2,500 people but fewer than 50,000
- Small city or town with less than 2,500 people

VITA

Jewon Lyu was born in Seoul, South Korea in 1981, and holds a Bachelor of Science degree in business administration from Chung-Ang University, South Korea. She holds her a Master of Art in International Business from University of Florida. Upon graduation, she was admitted to the Ph.D. program at the University of Tennessee, Knoxville where she worked as a teaching and a research assistant for the past four years. She has taught retail business analytics class at the University of Tennessee while pursuing her Ph.D. degree in the Retail, Hospitality, and Tourism Management Department. Her primary research interests are in three-folds: (1) the impacts of advanced technology such as social media on consumer behaviors, (2) the impacts of multi-cultural environment on companies, and (3) corporate social responsibility. She has published in professional journals and proceedings in multiple international conferences. She also presented her research in multiple international conferences. She began to work at Seung Chang Airtek, Alabama, as an assistant sales and marketing manager from September, 2012.