

From Liking to Loyalty: The Impact of Network Affinity in the Social Media Digital Space

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Abstract

Building on existing models and social influence theory, we propose a hybrid social network affinity model which focuses on developing lasting relationships between consumers and social networking firms. Our model incorporates both rational and social influence motivations as antecedents to satisfaction and loyalty. Based on 352 adult respondents, we utilize a partial least squares structural equation method, and find that social network affinity is an important predictor of satisfaction and loyalty within a social network. In addition to other implications, our study indicates that social networking firms must build a sense of belonging, encourage interactivity, and offer ways to develop an emotional connection for their consumers.

Keywords: social networking, social influence theory, member loyalty, sense of belonging, satisfaction, social network affinity, interactivity, online community

ACM Categories: H.1.1

Introduction

Research which uncovers motivations that drive individuals to join and subsequently value their involvement in online social networks is scant. The implications for the exploration of such motivations are immense, since firms are increasing their social media marketing campaigns at remarkable rates (Barnes & Lescault, 2011) and social networking is considered a global megatrend (Singh, Bartikowski, Dwivedi, & Williams, 2009). Our study aims to explore the concept of community which forms within these social networks; to do so we introduce the concept of social network affinity and explain its roots in social influence theory.

Given the abundance of social networking and social media marketing and the associated social commerce boom (Stephen & Toubia, 2010), a greater understanding of the motivations behind member loyalty to such communities is warranted. As a step in that direction, we propose a social network affinity based model which posits that member loyalty to a social network will be enhanced by both rational features, i.e. information and system quality, and social influences, i.e. belonging, interactivity, and emotional connection. Building on the models provided by Lin (2008) and Zhang (2010), we propose a hybrid model which focuses on developing lasting relationships between consumers and social networking firms. Our model contributes to the existing body of information systems research as follows: (1) we theoretically augment extant models of loyalty by combining research from multiple disciplines and framing our model around social influence theory; (2) our model specifically tests the impact of social networking affinity and shows how it builds loyalty for existing users; and

finally (3) our model covers both affective aspects of social networking usage such as belongingness and interactivity as well as cognitive motivations including information and system quality.

The paper is organized as follows. First, we discuss brand loyalty theory, as it relates to social network member loyalty and its antecedents and build our conceptual model and hypotheses. Next, we describe an empirical study designed to test the conceptual framework suggested by our hypotheses. After we discuss our empirical findings, we summarize and conclude our research by providing its implications for both managers and researchers.

Theoretical Framework and Hypotheses

Social influence

From a consumer behavior perspective, research shows that behavior of others greatly influences individual behaviors (Bearden & Etzel, 1982), both through verbal and non-verbal actions. Most theoretical models account for social influence in terms of three overarching means, namely: (1) modeling of subjective normative behaviors, i.e. the idea that individuals make choices based on their perceptions of whether important people in their lives would want them do that behavior (Fishbein & Ajzen, 1975); (2) dispersion of information which decreases search effort and uncertainty, for example through word of mouth (Nitzin & Libai, 2011); and (3) from an economics perspective via network models and externalities for example the product life cycle model of innovation adoption (Goldenberg, Libai, & Muller, 2010).

Dating back to the theory of planned behavior (Fishbein & Ajzen, 1975) and the impact of subjective normative behavior in that model, social influence theories explain consumer behavior phenomena in a plethora of contexts. For example, model-based research demonstrates that social influence impacts both attitude towards adoptions as well as adoption intention for highly innovative products, moderated by public versus private consumption (Kulviwat, Bruner, & Al-Shuridah, 2009).

Social influence network theory suggests that, from a cultural meaning perspective, interpersonal relationships can influence and change the way individuals form cognitions regarding objects, and such modifications have an impact on their associated social network (Childress & Friedkin, 2012). Their theory shows that social influence is not a one-way process, but instead operates in a cyclical fashion, creating social waves within which ideas, knowledge, and interactions are constantly exchanged. Such social networks also impact organization-level learning and relationships, and as such, this theory also applies to

the building of social capital, a form of shared values (Vaezi, Torkzadeh, & Chang, 2011). Across multiple disciplines and contexts, research shows that social influence impacts consumer decision making during product choice, brand preference, purchase process outcome satisfaction, and so on. For example, Kim and Park (2011) suggest that when individuals receive increased quantity and quality of social influence, they tend to voluntarily adopt new technology at faster rates.

Due to the shift towards online communication over the few past decades, consumers not only communicate in the form of traditional communities in public physical spaces, but also through online social networks which operate in 'virtual' spaces. One example of an online community is a virtual world application, such as Second Life, within which individuals can assume an altered identity and interact with people throughout the world. Krishen, Hardin and LaTour (2013) find that virtual worlds provide individuals with many of the benefits from retail environments, such as social interaction. In fact, researchers describe modern society as a large number of overlapping social networks, many of which are completely virtual and allow multiple memberships and identities (Fukuyama, 2001). Research shows that social network theory, based on the idea of the formation of social groups, explains how successful sales representatives form customer groups (Chabowski, Mena, & Gonzalez-Padron, 2011). Social networking sites such as Facebook provide avenues for users to interact with and create strong ties to others in virtual (online) space just as they may in physical (offline) space networks; our model explores such networks to identify ways in which the bonds formed within them create loyalty to them for their users.

Affinity is defined as "a strong connection or relationship between people or things" ("affinity", American Heritage Dictionary, Fourth Edition). We bring this concept into the social networking arena by combining sense of belonging, interactivity, and emotional connection and conceptualizing these as parts of social network affinity. In recent research, Panigrahy, Najork, and Xie (2012) identify social affinity across multiple online domains and computationally show that virtual relationships can build it through repetitive and selective connections. Preece (2001) discusses the usability-sociability framework, which delineates two key components of virtual community success. The sociability aspect covers shared purposes in virtual community communication such as mutual support. In our model, social network affinity includes the social aspects of member loyalty and includes belongingness derived from membership. Research also indicates that sense of belonging increases continuous participation in virtual communities (Lu, Phang, & Yu, 2011). We therefore suggest that:

H1: Sense of belonging positively affects social network affinity.

One of the key features of any form of electronic media is the extent to which users find it interactive and therefore actively engage with it. One all-encompassing definition of interactivity proposes interactivity as comprised of four key qualities, namely bidirectional, timely, mutually controllable, and responsive (Yadav & Varadarajan, 2005). Chan and Li (2010) discuss two different routes of interactivity, one of which is structural and the other is experiential. Whereas the structural route of interactivity consists of design features of the media itself, experiential interactivity consists of the social bond and enjoyment that a consumer establishes with the media. From a return on interactivity perspective, Köhler et al. (2011) analyze the interactivity of a banking website with consumers by linking their self-reported subjective measures with their objective financial data. In their model, the style of interactivity, proactive versus reactive, and content of interactivity, social or functional, serve as inputs with which to measure new customer adjustments. Their findings show that interactivity, in general, leads to positive subjective and objective measures, within certain boundary conditions. Interactivity can also contribute to unnecessarily high complexity perceptions on websites (Krishen & Kamra, 2008) and in advertisements (Krishen & Homer, 2012), when implemented inappropriately. One important delineation is that of perceived versus actual interactivity, wherein actual interactivity is defined as the mechanistic properties of the stimulus itself as in the structural route discussed by Chan and Li (2010), and perceived interactivity is the outcome or mental state of users as they traverse and experience the electronic media (Ha, Muthaly, & Akamavi, 2010). In line with this, we propose that because interactivity in a social network is person-interactive, subjective norms will play an important role and increase affinity in the community. We also note that we discuss perceived interactivity in our model. Thus, we propose that:

H2: Interactivity positively affects social network affinity.

Much like attachment to a brand, consumers form affective commitments, or emotional connections with online communities. According to Ashley and Leonard (2009), emotional connection to a brand is characterized by not only cognitive attitudes towards a brand but also by links between a brand and the consumer's self-concept. Emotional connection is also a predictor of commitment, in the context of brands (Fullerton, 2003). In fact, recent research postulates a three-component model, formed by affective, normative and continuance dimensions, to theorize the motivations which drive consumer commitment (Melancon, Noble, & Noble, 2011). Moreover, recent

research on the Facebook brand shows the impact of emotional connection on affinity, discussing four key introspective accounts of such interaction: addiction, personal branding, Facebook stalking, and brand relationships (Patterson, 2012). In this model, affective commitment is defined as the intrinsically driven emotional bond that a consumer feels towards an organization. Therefore we hypothesize that:

H3: Emotional connection positively affects social network affinity.

Identified as a relational third-place theory, Rosenbaum (2006) discusses three types of loyalty outcomes - cognitive, community and ultimate loyalty, which correspond to physical, social, and emotional consumer needs, respectively. In this theory, the service location itself has different meanings based on the consumer needs, and when consumers have social needs, the place tends to mean a location for gathering. Thus consumers are likely to increase loyalty for a "place" which allows them to fulfill their social needs. The concept of a place has also been termed a consumer "space" in qualitative research (Visconti et al., 2010), whereby public places can allow for social interactions and create a sense of belonging for consumers, for example with regards to street art. The usability-sociability framework also supports the notion that social interactions increase satisfaction and intention to participate in virtual communities (Preece, 2001; Lu, Phang & Yu, 2011). Therefore:

H4: Social network affinity positively affects member satisfaction.

Online social networks can be described as environments within which people come together to give and receive information (Ridings, Gefen & Arinze, 2002). This depiction stresses the importance of information quality as it is exchanged via real time options such as live chat sessions and non-real time options such as forum posts. Information quality is typically defined in terms of accuracy, relevance and timeliness of information (Seddon, 1997). This construct is therefore well suited to capture content issues, particularly within e-commerce applications (DeLone & McLean, 2003). Moreover, Lin (2008) measures the construct, within an e-commerce environment, in terms of accuracy of information, usefulness of information, timeliness of information and availability of customized information. Along these lines, we therefore suggest that:

H5: Information quality positively affects member satisfaction.

A malfunctioning social networking application can make satisfactory participation very difficult for consumers. Further, Yang, Stafford, and Gillenson (2011) suggest that an application that is easy to use

will encourage users to become more experienced and take advantage of more aspects of it. Thus, we contend that consumers will not engage with an application that they consider unnecessarily difficult to use. Ease of use is also an antecedent to trust of social networking sites, as Lankton and McKnight (2011) show specifically for Facebook membership. Member satisfaction with system quality captures the handling of technical issues that may hinder use, such as systemic bugs and user interface inconsistencies. Typically it considers usability, availability, reliability, adaptability and response times on the basis that they are valued by users (DeLone & McLean, 2003; Lin, 2008). We therefore posit that:

H6: System quality positively affects member satisfaction.

Research finds that many motivations lead to brand loyalty such as formation of reference group associations (Bearden & Etzel, 1982), mitigation of regret (Bui, Krishen, & Bates, 2011), and identification with a brand community (Muniz & O’Guinn, 2001). The underlying motivation for becoming brand loyal can broadly be explained in terms of the goal-driven motivation process whereby every consumer has an actual versus ideal state. In order to achieve the ideal state, the consumer identifies and satisfies needs and achieves the goal, thus reducing her tension (Hui, 2005). The development and maintenance of customer loyalty to a product or brand is a central challenge for firms and, as such, has been studied in several contexts. Although researchers have studied several important antecedents to brand loyalty, Oliver (1999) identifies beliefs, behavior and actions as its three dimensions. Recent research incorporates both behavioral and attitudinal measures as predictors of brand loyalty (Yi & Jeon, 2003).

H7: Social network affinity positively affects member loyalty.

Whereas multiple motivations, such as conformity and escapism (Labrecque, Krishen, & Grzeskowiak, 2011) or usage imagery congruity (Liu, Li, Mizerski, & Soh, 2012), might ultimately lead to brand loyalty, antecedents to loyalty almost always include satisfaction. For example, He, Li, and Harris (2012) show that satisfaction leads to trust which predicts loyalty in multiple product domains. In fact, extant research shows that customer satisfaction is predictive of purchase intention (Mittal & Kamakura, 2001) and employer loyalty (Yang, Stafford, & Gillenson, 2011), and may also lead to acceptance of post-adoption IS usage (Wilkin & Davern, 2012). Hence we suggest that:

H8: Member satisfaction positively affects member loyalty.

Figure 1 graphically represents the hypotheses.

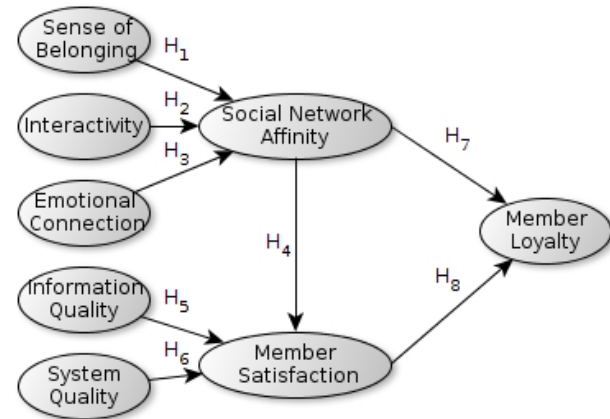


Figure 1. Conceptual Model

Research Method

Study context

To test the hypotheses and overall model depicted in Figure 1, trained upper level marketing undergraduate student investigators administered the survey instrument. Following the quota-convenience data collection method outlined by Mick (1996) and Freling, Crosno, & Henard (2011), the student investigators were not aware of the details of the study and were given course credit for recruiting non-student subjects from local retail areas in the western region of the U.S. with the following stipulations: members of one or more social networking sites, and aged over 18 years old. For the context of our study, research shows that this quota-convenience technique produces a statistically disperse sample which is generalizable and ecologically valid (Snijders, 1992). The non-student sample population consisted of 352 adults; demographics are provided in Table 1. Note that our sample contains more females than males, which is ecologically valid for social networking usage (Hargittai, 2008).

Table 1. Study Demographics

Variable	Frequency	Percentage
<i>Gender:</i>		
Female	212	59.7%
Male	140	39.4%
<i>Majority social networking time spent on:</i>		
Facebook	298	84.2%
Linkedin, Twitter, or other	54	15.8%
<i>Marital Status:</i>		
Married	48	13.8%
Divorced	17	5.4%
Single	287	80.8%
	Mean	Range
Age	25.9	18-73

Measures

We utilize a structured questionnaire for which we reviewed academic and practitioner literatures, paying close attention to the content validity of the measures. All measures are detailed in Table 2.

Information quality (IQ) measures user perception of the quality of the online content presented within the social network. It is defined in terms of accuracy, relevance and timeliness of information. This interpretation is consistent with that of other researchers including Lin (2008).

System quality (SQ) measures the technical success of the SN. It has been argued by researchers such as Seddon (1997) and DeLone and McLean (2003) that system quality is well matched to capture technical issues that hinder use, such as systemic bugs and interface inconsistencies. It is defined in terms of reliability, ease of use, response time and system flexibility. This interpretation is consistent with that of other researchers such as Lin (2008).

Sense of belonging (SB) measures consumer perception of how strongly they feel that they are a part of the social network. It has been argued that a sense of belonging motivates individuals to participate in a social network (Lin, 2008). As such, it is portrayed as being pivotal to the expansion and development of a social network.

Interactivity (I) is a bidirectional concept driven by the need for consensual validation. The seminal work of McMillan and Chavis (1986) claims that individuals are more likely to participate in a group if they think that they have influence over the group members. They also maintain that group cohesion is dependent on the ability of the group to influence its members. The member thinks that their involvement makes a difference to the group and group membership is important to the member.

Emotional connection (EC) measures user perception of the quality of their interactions and their emotional investment in the social network. McMillan and Chavis (1986) indicate that an individual's emotional investment contributes significantly towards their sense of community membership.

Member satisfaction (MS) measures how content consumers are with a social network. Specifically, it is defined in terms of their satisfaction with social interactions, handling of information needs and overall satisfaction. The work of Seddon and Kiew (1996) and Lin (2008) supports the inclusion of member satisfaction in the structural model.

Social network affinity (SNA) measures user perception of the quality and strength of their bonds with other community members. Underpinning the construct is the

notion of shared values. McMillan and Chavis (1986) demonstrate that we all have personal values that inform our emotional and intellectual needs. They contend that the presence of members with shared values underpins cohesive communities.

Member loyalty (ML) measures member participation and intended future participation as part of the social network. Lin (2008) shows that the stability in a relationship which is associated with member loyalty plays a significant role in expanding the virtual community.

Results

We test our research model with structural equation modeling (SEM) using the partial least squares (PLS) procedure (Chin, 1998). PLS is a second-generation modeling technique that simultaneously assesses the quality of measurement of research constructs and the interrelationships between the constructs (Ranganathan, Dhaliwal, & Teo, 2004, p. 19). Unlike other SEM techniques, such as LISREL, that use maximum likelihood estimation to gauge the fit between a theoretical model and covariance matrix of the observed data, PLS assesses the relationships between constructs, and between the constructs and their measurement items, so that the error variance is reduced. PLS seeks to explain the relationships within a model and enables simultaneous analysis of whether the hypothesized relationships at the theoretical level are empirically confirmed. Therefore, PLS is better for analyses of exploratory models where explanation of the construct interrelationships is desired (e.g. Roback & Wakefield, 2013; Vaezi, Torkzadeh, & Chang, 2011).

The conceptual model proposed in this research can be considered complex since it incorporates four inner constructs and two outer constructs. PLS is better suited for understanding complex relationships (Chin, 1998). The objective of this research is to understand the nature of the relationship among tenets of member satisfaction in relation to intrinsic (information quality (IQ) and system quality (SQ)) and social network affinity in relation to extrinsic (sense of belonging (SB), interactivity (I) and emotional connection (EC)) variables. We examine the relative influence of these constructs on member loyalty simultaneously in the model. Additionally, PLS does not require normally distributed data. In marketing research and social science, it is common that data does not satisfy the requirements of multi-normality and/or attain a certain number of the sample size as required for maximum likelihood estimation. PLS is a distribution-free method, thus does not allow distribution dependent statistical testing.

Table 2. Measurement Model Statistics

Construct	Variable	Loading	Std. Error	t-statistic
<i>System Quality</i> CR=0.808 AVE=0.5838	V15	0.7668	0.0455	16.8434
	V16	0.7628	0.0418	18.2496
	V39	0.7626	0.0342	22.3281
<i>Info Quality</i> CR=0.8548 AVE=0.5959	V17	0.7852	0.0428	18.3353
	V18	0.7184	0.0511	14.0537
	V19	0.8109	0.0257	31.606
<i>Member Satisfaction</i> CR=0.9052 AVE=0.6572	V20	0.7704	0.0382	20.1893
	V30	0.8243	0.0197	41.8776
	V31	0.8704	0.0142	61.2711
	V32	0.7529	0.0374	20.1343
<i>Member Loyalty</i> CR=0.8785 AVE=0.6442	V33	0.8557	0.0185	46.3308
	V34	0.7416	0.038	19.499
	V37	0.7765	0.0229	33.9395
	V40	0.7954	0.0382	20.8286
<i>Sense of Belonging</i> CR=0.9219 AVE=0.7973	V42	0.7835	0.0352	22.2705
	V43	0.8529	0.0204	41.8989
	V44	0.8972	0.0173	51.7744
	V45	0.8969	0.0131	68.6436
<i>Interactivity</i> CR=0.8698 AVE=0.6261	V46	0.8846	0.0142	62.1387
	V47	0.7939	0.0293	27.1135
	V48	0.8414	0.0224	37.5701
	V49	0.8014	0.034	23.5997
<i>Social Network Affinity</i> CR=0.8428 AVE=0.5735	V50	0.7237	0.0381	18.9804
	V51	0.7251	0.0424	17.1
	V52	0.7379	0.0397	18.6066
	V53	0.8287	0.0208	39.9178
<i>Emotional Connection</i> CR=0.8635 AVE=0.6803	V54	0.7328	0.0444	16.5016
	V55	0.8849	0.0176	50.3374
	V56	0.869	0.0178	48.9298
	V57	0.7091	0.0464	15.2658

The hybrid model, as shown in Figure 1, includes five independent variables: information quality (IQ), system quality (SQ), sense of belonging (SB), interactivity (I) and emotional connection (EC). It also includes three dependent variables: social network affinity (SNA), member satisfaction (MS) and member loyalty (ML). Per previous research showing that gender can be a factor in social media communications (Gefen & Ridings, 2005), age and gender were considered

covariates in our model. Using the method outlined in Lowry and Gaskin (2014), age revealed a path coefficient of -0.06 (t value=1.36) while gender was -0.03 (t value=0.65), therefore both had no significant impact on our model. All constructs have at least three associated measurement items. This is in accordance with the Hulland (1999) recommendation that researchers include multiple measures for each construct. The measurement items are considered to have a reflective relationship with the constructs and all were found to be reliable.

Prior to testing the statistical significance of the paths of the measurement and structural models, we examine its validity and reliability. Table 2 provides loadings for the respective constructs along with composite reliability scores (CR), average variance extracted (AVE), standard errors and t-statistics. All items are significant at 0.05 levels with high loadings (all above 0.70), attesting convergent validity. Composite reliability can also replace Cronbach's alpha as a measure of reliability, where 0.65 is an adequate measure for research (Nunnally, 1978). Table 2 indicates a high level of reliability for alpha values of each construct with levels ranging from as low as 0.808 to as high as 0.9219. The AVE measures the variance captured by the indicators relative to measurement error (Fornell & Larcker, 1981). To use a construct, the AVE should be greater than 0.50 (Barclay, Thompson, & Higgins, 1995). Values reported in Table 2 demonstrate adequate AVE values for the latent constructs.

Table 3 presents the discriminant validity statistics, means, and standard deviations of the constructs. Diagonal elements in the correlation of constructs matrix are the square root of the AVE. For adequate discriminant validity, diagonal elements should be greater than corresponding off-diagonal elements; our model constructs demonstrate discriminant validity. Table 4 provides cross-loadings of constructs; all items loaded higher on their respective constructs than on others. Therefore, our model demonstrates discriminant and convergent validity, showing that measures of the constructs are distinct and indicators load on the appropriate construct satisfactorily.

Discussion

Table 5 summarizes the PLS findings for hypothesized results (H1-H8) and identifies that the path coefficients of the conceptual model is one-tailed, with the critical ratios determined by the bootstrap method given as follows: 1.65 is significant at p=0.05, 2.32 is significant at p=0.01, and 3.09 is significant at p=0.001. The highly significant critical ratios provide full support for all hypotheses H1 through H8.

Table 3. Mean, standard deviation, correlation and average variance extracted

	Mean	SD	SNA	EC	IQ	I	ML	MS	SB	SQ
SNA	3.3341	0.73022	0.7573	0	0	0	0	0	0	0
EC	3.3963	0.73787	0.7362	0.8248	0	0	0	0	0	0
IQ	3.5375	0.70329	0.3143	0.3142	0.7719	0	0	0	0	0
I	3.0718	0.79032	0.6696	0.5594	0.2192	0.7913	0	0	0	0
ML	3.8214	0.6901	0.6513	0.6304	0.2857	0.4975	0.8026	0	0	0
MS	3.5078	0.86611	0.6097	0.6159	0.41	0.4862	0.6784	0.8107	0	0
SB	3.6184	0.82647	0.6614	0.6402	0.3121	0.5335	0.7998	0.743	0.8929	0
SQ	4.0501	0.60405	0.4754	0.4214	0.4071	0.3176	0.5584	0.5451	0.5277	0.7641

Table 4. Cross Factor Loadings

	SNA	EC	IQ	I	ML	MS	SB	SQ
V51 I feel my needs (such as social and recreational activities) are met in the SN.	0.73	0.47	0.18	0.54	0.42	0.51	0.48	0.32
V52 I can get help in the SN if I need it.	0.74	0.53	0.24	0.44	0.50	0.42	0.47	0.40
V53 Participation in the SN is worth of my time.	0.83	0.59	0.26	0.50	0.64	0.50	0.63	0.45
V54 People in the SN look out for me.	0.73	0.64	0.27	0.56	0.40	0.42	0.40	0.26
V55 I feel I am well understood by other members in the SN.	0.64	0.88	0.30	0.50	0.55	0.52	0.54	0.37
V56 I have the feeling of closeness in the SN.	0.70	0.87	0.24	0.57	0.52	0.58	0.59	0.37
V57 I get along well with other members in the SN.	0.43	0.71	0.24	0.26	0.50	0.40	0.43	0.30
V17 The information provided by the other members of the SN is accurate.	0.28	0.24	0.79	0.16	0.20	0.30	0.20	0.31
V18 The information provided by other members of the SN is up to date.	0.21	0.20	0.72	0.14	0.18	0.25	0.17	0.31
V19 The information provided within the SN is relevant to me.	0.28	0.25	0.81	0.19	0.26	0.38	0.32	0.34
V20 The content provided by community members is well presented by my SN.	0.19	0.27	0.77	0.18	0.23	0.31	0.24	0.30
V47 Members of the SN influence my thoughts and activities.	0.47	0.37	0.21	0.79	0.34	0.37	0.44	0.21
V48 I am able to influence the actions and feelings of other members in the SN.	0.57	0.43	0.16	0.84	0.42	0.40	0.45	0.29
V49 My opinions matter to other members in the SN.	0.55	0.54	0.21	0.80	0.47	0.47	0.48	0.37
V50 I care about what other members think of my actions in the SN.	0.52	0.42	0.13	0.72	0.34	0.29	0.32	0.12
V37 I am very committed to the SN	0.59	0.52	0.21	0.49	0.78	0.63	0.69	0.40
V40 I believe it is worthwhile for me to continue to participate in SN.	0.51	0.51	0.33	0.36	0.80	0.52	0.62	0.45
V42 I am willing to communicate with other members of the SN.	0.43	0.51	0.18	0.35	0.78	0.45	0.56	0.46
V43 I am very likely to continue to participate in the SN in the future.	0.53	0.49	0.20	0.38	0.85	0.55	0.68	0.49
V30 I feel a strong sense of belonging to the SN.	0.58	0.62	0.32	0.52	0.57	0.82	0.68	0.43
V31 I enjoy being a member of the SN.	0.53	0.56	0.38	0.38	0.64	0.87	0.68	0.49
V32 Using the SN helps to satisfy my information needs.	0.43	0.40	0.40	0.38	0.41	0.75	0.47	0.34
V33 Overall, I am satisfied with the SN.	0.45	0.48	0.36	0.32	0.62	0.86	0.64	0.54
V34 Using the SN helps to satisfy my social needs.	0.46	0.40	0.20	0.38	0.47	0.74	0.50	0.39
V44 I am proud to be a member of the SN.	0.55	0.54	0.29	0.44	0.70	0.63	0.90	0.44
V45 I enjoy being a member of the SN.	0.59	0.56	0.28	0.46	0.78	0.67	0.90	0.52
V46 I feel a strong sense of belonging to the SN.	0.63	0.61	0.27	0.53	0.67	0.69	0.88	0.45
V15 My SN is easy to use.	0.29	0.28	0.37	0.13	0.37	0.36	0.36	0.77
V16 Other people in the SN respond to my requests quickly.	0.32	0.28	0.44	0.22	0.27	0.42	0.30	0.76
V39 I use the SN for a variety of purposes.	0.46	0.39	0.15	0.35	0.61	0.46	0.53	0.76

Table 5. PLS Path Model Results

Dependent Variable	Independent Variables	β	t-value	Hypothesis
SNA (R ² =.667)	SB	0.23	4.17*	H1, supported
	I	0.32	6.44*	H2, supported
	EC	0.41	8.20*	H3, supported
MS (R ² =.478)	SNA	0.43	8.55*	H4, supported
	IQ	0.16	2.82*	H5, supported
	SQ	0.28	5.02*	H6, supported
ML (R ² =.550)	SNA	0.38	7.07*	H7, supported
	MS	0.45	8.85*	H8, supported

Figure 2 provides a final model of our findings with beta values. With regard to the model as a whole, all 31 measurement item loadings were greater than 0.70. In these instances, there were more shared variances between the constructs and their respective measures than error variances. The path coefficients denote the strength of the relationships between the constructs. Importantly, social network affinity, with a path coefficient of 0.37, was a significant predictor of member loyalty. While member satisfaction was also found to contribute to member loyalty, the relationship was found to be much less influential, with a path coefficient of 0.45.

The influences of interactivity and emotional connection on social network affinity were found to be comparable with path coefficients of 0.32 and 0.41, respectively. Sense of belonging was found to be slightly less influential with a path coefficient of 0.23. Another positive relationship was evident between system quality and member satisfaction. The path coefficient was 0.27. Information quality and social network affinity made lesser contributions towards member satisfaction, with path coefficients of 0.16 and 0.43, respectively.

To determine the extent to which variances in the constructs can be explained by the model, the R² values of the dependent constructs were also examined and found to be significant (Hulland, 1999).

The R² values were as follows: social network affinity was 0.67, member satisfaction was 0.48, and member loyalty was 0.55. The R² values suggest that the social network affinity model accounts for 67% of the variance in social network affinity, 48% of the variance in member satisfaction, and 55% of variance in member loyalty.

Based on the results of the analysis, including the R² values of the dependent constructs and the strength of the path coefficients, two predictions can be made. First,

that a member's sense of loyalty to a social network is directly related to their affinity with the social network. Secondly, that a member's sense of loyalty to a social network is indirectly (via their sense of their affinity with the social network) related to their sense of belonging, their view of the quality of their interactions, and the strength of their emotional connection to the social network.

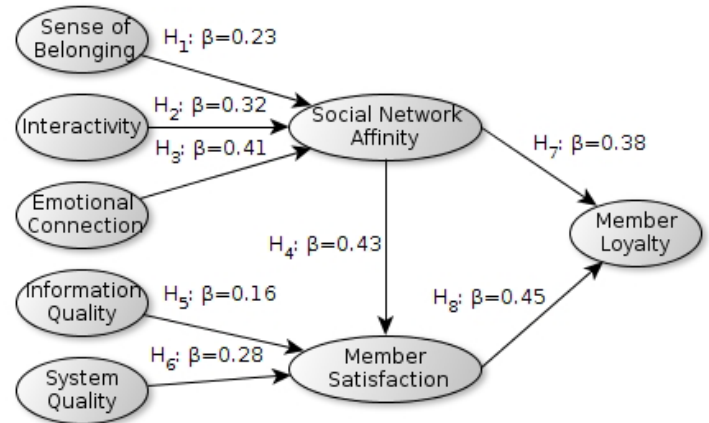


Figure 2. Final Model

Conclusions, Limitations, and Managerial Implications

We contribute to existing research by offering an affinity-based model for social networking loyalty, through an innovative cross-disciplinary lens. In building our model, we base our ideas on social influence theory, and pull from literatures across the marketing, information systems, management, and information technology disciplines. We identify social network affinity and show that it can lead to long term relationships, allowing consumers to develop deeper bonds through its reciprocal nature. The interactivity allows for this reciprocity, learning, mentoring and mirroring of relationships, and overall more holistic sense of belonging to the social network. Much as Muniz and O’Guinn (2001) define brand communities and the associated benefits and loyalties that ensue from them, we define SNA as an important contributor to long-term loyalty to a social network.

One of the most important aspects of the proposed social network affinity model is the incorporation of both rational and social influence motivations as drivers of satisfaction and loyalty. Although social influence is an important explanatory theory which leads to social network affinity, rational factors must also be included in the model. In the context of websites, Gao and Koufaris (2006) show that both rational (informativeness) and experiential (entertainment value and irritation)

motivations increase attitude towards them and intention to use them. Therefore, even if social network affinity is high, firms must continue to provide information and system quality throughout the customer experience process in order to assure long-term loyalty.

We acknowledge that our study is somewhat limited in size and scope, i.e. we test one type of online engagement, namely social networks, and a specific regional area of the U.S. Given the increase in the number and types of social media (blogging, microblogging, crowdsourcing, etc.), future studies should develop a taxonomy of social media usage and identify the applicability of our social network affinity model. Additionally, our study only included participants who are members of one or more social networking applications; we could be missing participants who might have been in social networking sites at one point and left prior to our study taking place. In lieu of this limitation, perhaps our sample could have contained social networking members who have some intrinsic liking or motivation to stay in the sites. In future research, researchers can validate our model to include a set of members who have left social networking sites and perhaps augment it to include variables of interest for social networking site abandonment. This new model would not be designed to inquire about loyalty but instead be based on abandonment and perhaps have overlap with our model as well. Even though we attempt to maximize external validity, we would suggest that to increase generalizability, a probability sample would be preferred over our approach. To add rigor to our findings, we suggest future experimental research to further augment our social network affinity definition and provide additional boundary conditions for it. Future research could also extend our findings by testing them in field settings. Finally, in our literature review, we incorporate the extant research of multiple areas since social networking spans information systems, marketing, psychology, and management, but as such, we are limited in our ability to do this, given our domain-specific knowledge. We recognize this as a potential limitation of our research. Another limitation of our research is that existing literature does not clearly identify social network affinity as a construct and discuss its antecedents and consequences. The area of social networking research is rapidly expanding as new communication models which address the social web are being called for (Appleford, Bottum, and Thatcher, 2014), and therefore we were limited in our ability to build on the existing knowledge base. As such, our research is limited in that it draws upon related contexts to tie together our framework, such as virtual communities and e-commerce. In addition to this limitation, the measures employed in this study are adapted from extant literature and then validated using commonly accepted measurement techniques. Future

research can expand on social networking motivations and further validate our measures.

There are several avenues within which to expand our model and findings. One such future research avenue would be density and crowding in the social commerce environment. Recent research demonstrates that retail shopping is a social experience and draws on the need for affiliation and its interaction with retail density (van Rompay, Krooshoop, Verhoeven, & Pruyn, 2012); the combination of this research with our concept of social network affinity sets the stage for an interesting academic exploration.

This study explores the notion of social influence within social networks and provides insight into the motivations driving online engagement. One of the most important findings of our study is the identification of online social network affinity as a strong predictor of member loyalty. One implication of our research is that firms should seek opportunities to cultivate social network affinity. Social network affinity can be fostered through the development and maintenance of a positive online environment which encourages behavioral integrity between members. Guidance, in the form of rules distributed to new members is one way of setting behavioral boundaries. The findings also indicate that a consumer's opinion of the ability of another member to meet his needs influences how much affinity he feels towards other consumers.

We find that individuals who have a sense of belonging within the social network are more likely to feel an affinity towards it. As such, it is important for those managing online networks to take steps to encourage members to feel that they are a part of the community. While a member's sense of belonging is essentially a perceptual measure, there are a number of strategies that an organizer of a social network can implement to foster a sense of belonging within it. From the point of group creation, the manager can assure that new consumers become part of a welcoming environment. An act as simple as sending a welcoming message to new consumers and inviting them to introduce themselves can contribute to their sense of belonging.

Additionally, our results demonstrate that positive interactions and emotional connections foster social network cohesion. Consumers who have strong emotional connections and are pleased with the quality of their interactions with other members are more likely to feel an affinity with the social network. Therefore, it is evident that social networks should maintain a dynamic nature since new and existing members will have little, if any, motivation to participate in a social network that appears to be inactive. As recent research suggests, social networking is not a fad but instead is a growing medium within which consumers will continue to interact and voice their individual and collective

opinions (de Vries, Gensler, & Leeflang, 2012). Firms can indirectly encourage group activity and take appropriate action when they notice stagnation by introducing stimulating content or activities. Firms should also encourage member involvement and interactivity, possibly through the use of competitions or consumer-generated content. For example, when it is appropriate, consumers can personalize their online space through tagged pictures and detailed personal profiles. By encouraging engagement in this higher level of interactivity, social network firms will increase consumer social network affinity and in turn member loyalty. Moreover, firms can promote activities that encourage members to join in discussions and share knowledge. The firm can also generate a range of formal and informal opportunities for members to share their knowledge, discuss their areas of interest or engage in more personal exchanges. Not only will these exchanges foster a sense of community and social engagement among members but, in the process, the consumers can learn more about other consumers and grow their social networks.

Our research also suggests that member satisfaction can be affected by the quality of the information provided within the social network; also that individuals who are satisfied with a social network are more likely to feel a sense of loyalty towards it. Given that an individual's sense of loyalty influences their decision to return to the social network, it is important that firms determine the information needs of the consumers and ensure that those needs are met. In terms of information quality, our results suggest that consumers value content that is accurate, current and relevant to them. The creation of knowledge banks and repositories would be one way to address the need for quality information for consumers. These information hubs could be based on relevant topics with the involvement of social network members as well as relevant external experts. These knowledge banks should be maintained and updated so that they remain accurate and encourage interactivity within the social network. In conclusion, we extend existing research and draw from social influence theory to define and highlight the importance of social network affinity as it relates to satisfaction and loyalty to a social network.

We contribute to the information systems and marketing literature on social influence network theory in several ways. Firstly, whereas virtual communities (Lin, 2008) and virtual world membership (Krishen, Hardin, & LaTour, 2013) have been previously explored, we present a framework to augment these research areas with a theoretically grounded model based on social networking. Secondly, we utilize a real world sample and find that the key motivations behind social networking satisfaction lie in a newly identified concept – *social network affinity*. Given the popularity and

dominance of social networking usage, which has presently surpassed almost every other internet site (Top Sites, 2014), our model uncovers important information about the impact of this membership on interpersonal influence. Finally, and most importantly, we identify the role of social network affinity and show that it influences both member satisfaction and loyalty to social networking.

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