

# Understanding Consumer Attitudes Toward Web-based Communication Tools

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## Abstract

Motivated by the growing role of online transactions and Web-related Word-Of-Mouth (WWOM) in the consumer behavior domain, we propose a theoretical model that relates two antecedents (consumers' community and content ownership) to attitudes toward four WWOM tools (Viral Marketing, Consumer-Produced Ads, Consumer Web Logs, and Collaborative Filters). The model and related hypotheses are empirically tested with the structural equation modeling (SEM) approach, using data from a large-scale survey. Results validated most of the proposed hypotheses and generated new insights. For example, we found that the direct relation between consumers' community and their attitude toward blogs was completely mediated by their sense of content ownership. Finally, we delineate the limitations of the study and outline directions for future research.

**Keywords:** Web Word of Mouth, Consumer produced ads, viral marketing, structural equation modeling, mediation

## 1. Introduction

According to the U.S. Census Bureau, ecommerce transactions amounted to \$ 341.7 billion in 2015, representing 6.4% of total retail sales. This is a 14.6% increase over 2014 (compared to a 1.4% increase in total retail sales). This impressive growth is the continuation of a recent upward trend that portends a healthy future for online purchases. In a study conducted by PEW Internet and American Life Project, over two thirds of respondents reported making online purchases. However, three fourths of the respondents also voiced concerns over the safety of the information provided on the Internet—especially financial information. In addition, more than one-half of the respondents faced problems with obtaining information online about products and services—ranging from lack of information availability to presence of conflicting or confusing information.

There is evidence that the usefulness of information that consumers seek depends on the nature of its source. For example, Bickart & Schindler (2001) found that subjects who obtained product information from consumer-discussion forums found it more useful than did those obtaining the same information from marketer-controlled websites. Their analysis showed that subjects deriving product information from consumer forums had a higher likelihood of purchase, were better informed, and had more interest in the product category when compared to those getting information from corporate websites. These differences could be attributed to greater credibility, relevance, and ability to evoke empathy in a discussion forum environment (Bickart & Schindler, 2001)

In general, consumers' information search activities focus on attributes or characteristics of a product or service. Research (Darby & Karni, 1973; Nelson, 1970) has identified three types of attributes: search, experience, and credence. Search attributes, by definition, are readily available for consumer inspection (e.g., price). Therefore, such information can be collected and compared across the alternatives included within a choice set. Experience attributes include those that can only be evaluated during or after consumption of the product or service. Examples include attributes such as taste and texture of a food product. Credence attributes are characteristics that cannot be evaluated even after consumption. Consider a patient that underwent gall-bladder surgery. The quality and effectiveness of this surgical intervention cannot be fully evaluated by the patient even after surgery.

Although consumers face lower search costs in a Web environment, the information available online is usually restricted to search attributes. In other words, consumers cannot get information on experience or credence attributes in this environment (Biswas, 2004). In addition, they cannot ascertain the credibility or genuineness of the information source in online contexts. Both these problems are effectively tackled if consumers rely on Web-word-of-mouth (WWOM) communication tools that facilitate the flow of information generated by consumers for the benefit of other consumers. Examples of these communication tools include weblogs, consumer-produced ads, collaborative filters, viral marketing messages and social networking websites. A consumer-generated WWOM tool acts not only as an information source to other interested consumers, it also serves as a surrogate communication device that helps them to credibly verify not only search attributes of a product or service, but experience attributes as well. Note that WWOM tools are freely available to consumers in online environments.

It is important to improve our understanding of factors that influence consumers' attitudes toward WWOM communication channels. Such knowledge may help leverage WWOM tools such that they serve as efficient sources of information. Schindler & Bickart (2005) identify various types of consumer-generated media that are effective WWOM tools in an online environment. They include posted reviews, mailbags, emails (personal and email lists), discussion forums, chat rooms and instant messaging as illustrations of WWOM tools. Other examples include more evolved WWOM tools such as Web logs, consumer-produced ads and collaborative filters.

A key goal of our research is to better understand antecedent factors that influence consumers' attitudes toward four WWOM tools: viral marketing (Phelps et al., 2004), consumer-produced ads, consumer blogs (Huang et al., 2007) and collaborative filters. An important distinction between these WWOM tools and other available online communication devices (such as podcasts, branded entertainment, advergames) is that the former represent consumer-generated content while the latter represent marketer-generated content. Furthermore, the former content is generated by real consumers who usually reveal their identities (e.g., blogs, consumer produced ads, viral marketing) or remain anonymous (e.g., collaborative filters). We develop a theoretical model to understand the role of two key antecedent factors (community and content ownership) that influence consumers' attitudes toward the four WWOM tools. The following section reviews the literature and develops research hypotheses that will be subsequently tested using a structural equation modeling (SEM) approach.

## 2. Review of Literature

### 2.1 The Antecedent Factors

Alon et al. (2001) highlight the importance of WWOM vis-à-vis traditional WOM methods i.e., the role of one-to-many communication. Unlike traditional WOM, WWOM does not have a dyadic character. That is, WWOM communications are typically propagated through online communities in the virtual environment, without face-to-face interactions that characterize dyads. Such communities may be social (through a social network) or utilitarian (like a consumer network). Overall, community appears to be a critical and distinguishing factor for WWOM success.

In another study, Sun et al. (2006) hypothesized that online social connection is an important antecedent factor for WWOM behavior. Social connection implies that members involved in WWOM (sender and receiver of information) are connected through some form of social network (personal or need based). Once again, this reinforces the importance of community for effective WWOM.

King et al. (2014) in their synthesis of online word of mouth research identify various aspects that are known and yet to be known relating to electronic word of mouth. Some of the antecedents they identify for online word of mouth from both sender and receiver perspective are a need for social interaction (sender side), concern for others (sender side), and social assurance (receiver side). All these factors indicate a need for a group or community framework for online word of mouth to occur.

*Definitions:* For our purposes, **Community** captures a consumer's connectedness to an activity or interest. This includes the bonds he/she shares with a group of individuals also engaged in that activity/interest. We consider community as an antecedent factor because any word of mouth communication can occur only between consumers who are interested to either talk about a product/service or to listen to such a presentation. In this sense, there is a connectedness between the sender and receiver of information for that particular product/service. Such connectedness enhances communication efficiency.

van Doorn et al. (2010), in their attempt to develop a theoretical foundation for customer engagement identify various customer based factors that might influence the level of engagement in both B2C and C2C

communications. Some of the factors they identify are identity, satisfaction, trust and commitment. Of these factors, identity is a construct that closely resembles our conceptualization of community. This is because the need for self recognition and greater identity may lead to such customers to engage in activities that help other customers by creating a sense of community.

The second antecedent factor is **Content Ownership**, defined as Web-based information on products/services that originates from consumers. Such information is shared voluntarily by a given consumer, often motivated by a genuine desire to help or guide other consumers. Effective WOM requires the sender-consumer (who sends out the information) to have a sense of ownership of the disseminated content. Any consumer-generated information (that is successfully disseminated with a WWOM tool) may eventually attract a group of consumers with a strong sense of identification with, and acquired ownership of, that information.

## 2.2 Viral Marketing

Phelps et al. (2004) define viral marketing as a “process of encouraging honest communication among consumer networks, and it focuses on email as the channel.” As per our conceptualization, viral marketing is a form of word of mouth communication whereby consumers share their opinions about product/services with other (potential) consumers.

In an attempt to conceptualize the motives for interpersonal communication, Rubin et al. (1988) developed a 28 item scale and identified six motives—pleasure, affection, inclusion, escape, relaxation, and control. They reported that high communication apprehensives scored higher on the inclusion motive while low apprehensives had higher scores for control and affection. Irrespective of the degree to which consumers are apprehensive, a sense of community or belonging appears critical for WWOM activities that are an integral part of viral marketing. It is reasonable to argue that consumers who own products are more likely to be intense advocates of those products than say, consumers who do not own them. In a similar vein, a consumer who feels a strong sense of content ownership is likely to be more effective in WWOM communications than those lacking a sense of ownership.

Viral marketing involves the voluntary sharing of information about products and services between consumers through online communication tools. A strong sense of ownership of such information content is essential to engage in viral marketing activity.

Therefore we hypothesize that

H1a: There is a positive relationship between Community and the attitude toward Viral Marketing

H1b: There is a positive relationship between Content Ownership and the attitude toward Viral Marketing

## 2.3 Consumer Produced Advertisements

Consumer produced ads, as the label implies, are commercials created by consumers—not by firms. The volume of such online media content has registered impressive growth recently. This is evident from the popularity of websites like YouTube that boasts a user base of over 1 billion and a 40% increase in daily visits year-on-year since March 2014 (Youtube). Increase in Internet bandwidth, easy accessibility to video capturing devices like webcams, camcorders, and camera phones are key reasons for the increase in the amount of these consumer-generated online video content.

There is a paucity of research about consumers’ attitudes toward consumer produced ads. It is reasonable to expect consumers who produce and share such ads will have a strong sense of ownership of the content that they produced and shared with others. Therefore we propose that

H2: There is a positive relationship between Content Ownership and attitude toward Consumer Produced Ads.

## 2.4 Consumer Web Logs

Web Logs, commonly known as blogs are (generally) user generated websites with journal style entries. The Columbia encyclopedia defines a blog as—“Short for web log, an online, regularly updated journal or newsletter that is readily accessible to the general public by virtue of being posted on a website. Blogs typically report and comment on topics of interest to the author.” Given this definition, authors/owners of a blog are very likely to have a strong sense of ownership of their blog content. They represent an online discussion forum that facilitates rapid one-to-many, and many-to-many interactions.

Huang et al. (2007) attempted to model the motivations and behaviors of bloggers. They found that community forum participation, self-expression and life-documenting were key antecedents of blogging behavior. Both content ownership (need for self expression, life documenting) and community relatedness (community

participation) emerged as key causal factors influencing attitudes toward blogging. Another study by Hsu & Lin (2008) identified three factors that influence the intention to blog—technology acceptance, knowledge sharing, and social influence. Their model includes two social influencing factors: social norms and community identification.

Discussing consumer intentions on continued blogging, Lu & Lee (2012) propose that one of the factors that influence continued blogging behavior is the expectancy of a higher social capital. They conceptualize the social capital construct as the relationship between individuals and communities and the higher the expectancy of social capital (meaning the higher the relationship with the community) the higher the continued behavior to blog. They propose and confirm a direct relationship between social capital and blogging behavior. Thus, community once again emerges as a strong driver of consumers' attitude toward blogs. We therefore propose the following hypotheses.

H3a: There is a positive relationship between Community and the attitude toward Consumer Web Logs (blogs).

H3b: There is a positive relationship between Content Ownership and the attitude toward Consumer Web Logs (blogs).

### 2.5 Collaborative Filters

The proliferation of the Internet as an information resource is both a boon and a bane for consumers. It is a boon for information seekers as it dramatically reduces the cost of information search over traditional methods. It is also a bane for at least three reasons. First, it generally provides access to information on pre-identified search attributes. Second, the amount of information available is so vast that it often leads to consumer confusion (Biswas, 2004). Finally, the large number of unfamiliar online information sources creates new problems for consumers: it increases uncertainty about the source's identity and credibility. All these problems are mitigated or avoided by collaborative filters that act as a credible and appealing decision aid to consumers in a purchase environment. Using a large database, the process of collaborative filtering selectively extracts and presents information on preferences or choices of consumers who are similar to a given target customer. For example, if an index customer searched for the book *Winning* by Jack & Suzy Welch at the Amazon website, she can immediately access reviews of this book from other customers. More importantly, she will be offered "customized" recommendations for several additional books purchased by other Amazon customers that are "similar" to the index customer in the following respect: they purchased the same book title. The value of collaborative filters is that they provide consumers instantaneous access to more credible and more customized information; in contrast, information generally available on the Internet is not tailored and lacks credibility.

As stated earlier, the credibility characteristic is more strongly associated with consumer-generated information (as opposed to marketer-generated information); the customized characteristic of collaborative filters represents the composite of all customers who share similar product interests with the index customer under consideration. When taken together, this composite customer group represents a trustworthy (or credible) and meaningful (or customized) community to the index customer in shaping his/her product choice decisions.

Collaborative filtering is based on the principle of homophilous diffusion (where the recommendation from a filter is often based on ratings from individuals who are similar to a given user—see Canny, 2002). Brown et al. (2007) identified homophily as an important social network construct. According to them, shared group interests and shared mindset are the dimensions of homophily in an online environment. Once again, these dimensions reinforce the importance of both community and shared content ownership constructs to the concept of collaborative filtering. That is, the shared interest dimension corresponds to the community construct. Since consumers view the website providing the collaborative filter with higher credibility (because they reflect the view of consumers, not the corporate view), the sense of content ownership is high as consumers identify with other consumers that share similar interests. Therefore we propose that:

H4a: There is a positive relationship between Community and the attitude toward Collaborative Filters.

H4b: There is a positive relationship between Content Ownership and the attitude toward Collaborative Filters.

Figure 1 summarizes our hypotheses i.e., the inter-relationships between model constructs.

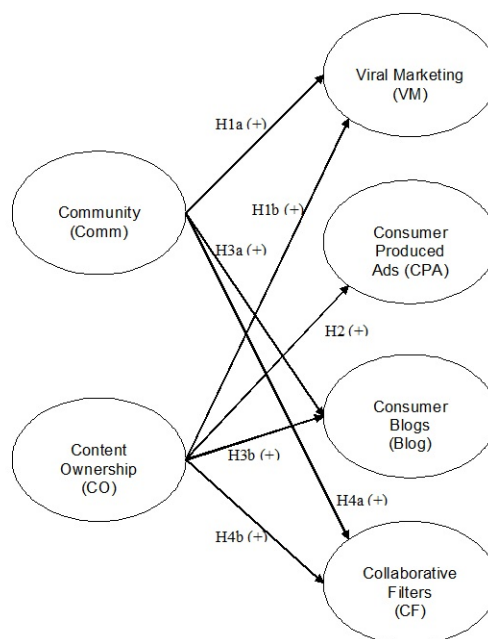


Figure 1. Conceptual model

### 3. Method

#### 3.1 Data Collection and Sample

The data were collected from a referral sample of 330 respondents. Respondents were recruited for the survey through the social networks of marketing majors enrolled at a university in the US Midwest. This approach was appropriate given our research focus on WWOM social networks and communication tools. Respondents belonged to both student and non-student populations. As part of a screening process, respondents were required to have some experience with the online environment and to demonstrate a basic understanding of the four WWOM communication tools chosen for this study.

EQS 6.1 software was used for data analyses. Initial analysis identified three respondents (respondent numbers 113, 208 and 310) as outliers who contributed most to multivariate kurtosis in our database. A preliminary examination suggested that these respondents were inconsistent in responses across similar items, so they were eliminated from our analyses. Thus, the effective sample size for our data analyses amounted to 327 respondents.

#### 3.2 Measures for the Model Constructs

Figure 1 shows two antecedent factors that were hypothesized to influence attitudes toward the four types of Web-based consumer communication channels. Of the four outcome constructs in the model, published measurement scale items were available only for the viral marketing construct. For other constructs, we developed scale items to conduct this study. A literature search of similar constructs was completed, and scale items for each model construct were developed based on that literature, logic, and face validity. Measurement items are listed in Appendix A that also shows reliabilities for each model construct is acceptably high (ranges from 0.731 to 0.873).

### 4. Data Analysis and Results

Appendix B shows the correlation/covariance matrix for our database. We follow the two step approach to structural equation modeling (Anderson & Gerbing, 1998; Novak et al., 2000) whereby the measurement model is estimated and refined before estimating the structural model.

#### 4.1 Purification of Measurement Model

Most of the model constructs did not have an established scale items for measurement. We relied on guidance from the Lagrange-Multiplier and Wald tests to iteratively purify and improve the measurement model (Anderson & Gerbing, 1988; Novak et al., 2000). Accordingly, indicator variables that did not fit well in an initial confirmatory factor analysis were eliminated and the theoretical model was then fit to the indicator variables that were retained from the CFA.

Estimation was initially done based on Maximum Likelihood (ML) estimation method in EQS. Since the data did not satisfy the assumption of multivariate normality (as indicated by Mardia's standardized co-efficient), we followed the recommendation of Bentler & Dudgeon (1996) to use the robust ML estimation approach. Therefore, all our analyses and their interpretation are based on the robust statistics.

The overall model fit for this initial CFA model (CFA1 in Table 1) as given by the Satorra-Bentler chi-square statistic was high and statistically significant at 738.81 (362 df;  $p < 0.01$ ). At initial glance, this suggests a bad model fit. However, it is well known that chi-square is usually statistically significant for large estimation samples, so researchers recommend focus on other indicators of model fit. CFA1 model did not fare well on other fit indices as well, with less-than-good fit on CFI (0.868) and RMSEA (0.056). For these commonly used fit indices (Bentler, 1991; Bagozzi & Yi, 1988) a CFI value of 0.9 or higher and a RMSEA value below 0.05 indicates very good fit. To improve model fit, we used modification tests to remove indicator items that cross-loaded with other factors or were related with other items (via correlated errors). Items that cross-load on other factors may not be a good representation of the construct under consideration. Similarly, when tests suggest correlating errors of specific item pairs, it may either indicate a lack of unidimensionality in the corresponding constructs, omitted factors, or an overlap in content (Cote et al., 2001; Byrne, 2006). After proceeding from CFA1 to CFA4 (see Table 1) with incremental model changes based on model modification tests, the final acceptable measurement model CFA5 was obtained. During this last model modification step, we allowed error covariances for three measurement items because of content overlap i.e., they were semantically related and pertained to the same construct (see Byrne 2006).

Table 1. Results of the purification of measurement model

	CFA1	CFA2	CFA3	CFA4	CFA5
<b>Model Changes from Modification tests</b>	None	Remove CPA4, Blog1, Blog3	Remove Comm1, Comm2, Comm6	Remove VM3	Correlate VM2-VM4 CPA1-CPA2 CF1-CF2
<b>SB Chi square</b>	738.81	554.32	377.01	342.88	276.71
<b>Df</b>	362	284	194	174	171
<b>P</b>	<.00001	<.00001	<.00001	<.00001	<.00001
<b>Robust CFI</b>	0.868	0.892	0.917	0.921	0.951
<b>NFI</b>	0.773	0.804	0.845	0.855	0.883
<b>RMSEA</b>	0.056	0.054	0.054	0.055	0.044
<b>90% CI</b>	0.050-0.062	0.047-0.061	0.046-0.062	0.046-0.063	0.034-0.053
<b>Model AIC</b>	14.80	-13.68	-10.99	-5.11	-65.29

#### 4.2 Estimation of Structural Model

The final CFA5 model above was used as the base model to assess the fit of the structural model. Only the paths that were theoretically hypothesized (as per Figure 1) were specified for the model estimation process; all other paths were constrained to zero. This structural model had a SB chi square of 351.54 (179 df,  $p < 0.01$ ) indicating a bad model fit for the data. Focusing on other model fit indices because of our large estimation sample, we find that CFI was acceptable at 0.920, but RMSEA was higher (at 0.054) than the desirable 0.05 limit, suggesting that fit could be improved further.

Similar to the measurement model purification process described earlier, modification indices were used to improve the fit of structural model. LM tests indicated that the Community and Content Ownership constructs were related. Although these constructs appear to be uncorrelated, one may argue that the degree of content ownership is likely to be higher for those who belong to a consumer community. A strong sense of community among consumers is more likely to result in a strong sense of collective ownership of information content.

Nevertheless, a study on blog behavior of Taiwanese subjects (Lu & Hsiao, 2007) showed that social persuasion had no impact on the intention to share information on a blog. The effect of social persuasion was mediated by the self efficacy construct. The construct of social persuasion is analogous to our community construct. It is possible that the effect of community on blogs may not be a direct one; instead it could be a mediated one. Thus a causal path was allowed for estimation from community to content ownership. This model modification resulted in two specific outcomes—the CFI improved to 0.939 and the RMSEA decreased to 0.047, thereby meeting the desirable thresholds (Bentler, 1991). On the other hand, the direct path from Community to Blog now became statistically non-significant indicating that content ownership might completely mediate the

relationship between community and blogs. To test whether this mediation is complete, a nested model comparison was performed between the two models. In one model (SEM2) both the direct and indirect paths from 'Community' to 'Blog' were retained for the analysis and in the competing nested model (SEM3), the direct path was restricted to zero. The likelihood ratio test indicated that the difference in chi-square was not statistically significant indicating the more parsimonious model to be a better fit. This full mediation model had a chi square of 308.95 (df 179;  $p < 0.0001$ ), a CFI of 0.940 and an RMSEA of 0.047 indicating a very good model fit. The results of the Structural Model modification process are summarized in Table 2.

Table 2. Results of the purification of structural model

	SEM1	SEM2	SEM3
<b>Model Changes from Modification tests</b>	None, was based on CFA5	Path added from Community (F1) to Content Ownership (F2)	Path from Community to Blog removed allowing for full mediation by content ownership
<b>SB Chi square</b>	351.54	308.25	308.95
<b>Df</b>	179	178	179
<b>P</b>	<.00001	<.00001	<.00001
<b>Robust CFI</b>	0.920	0.939	0.940
<b>NFI</b>	0.851	0.869	0.869
<b>RMSEA</b>	0.054	0.047	0.047
<b>90% CI</b>	0.046–0.063	0.038–0.056	0.038–0.056
<b>Change in chi-square</b>	NA	43.29	0.70
<b>Df</b>	NA	1	1
<b>P</b>	NA	<.01	>0.05
<b>Remarks</b>		Partial Mediation path	Full Mediation path

Table 2 shows that all hypotheses are supported with the exception of H3a. The final model with the structural path co-efficients are shown in Figure 2. It is important to note that the sign and statistical significance of the path coefficients, as well as the direction of the specific model paths support these hypotheses. As noted earlier, our analyses also show that the Community—Blog relationship is completely mediated by Content Ownership as can be seen from Figure 2.

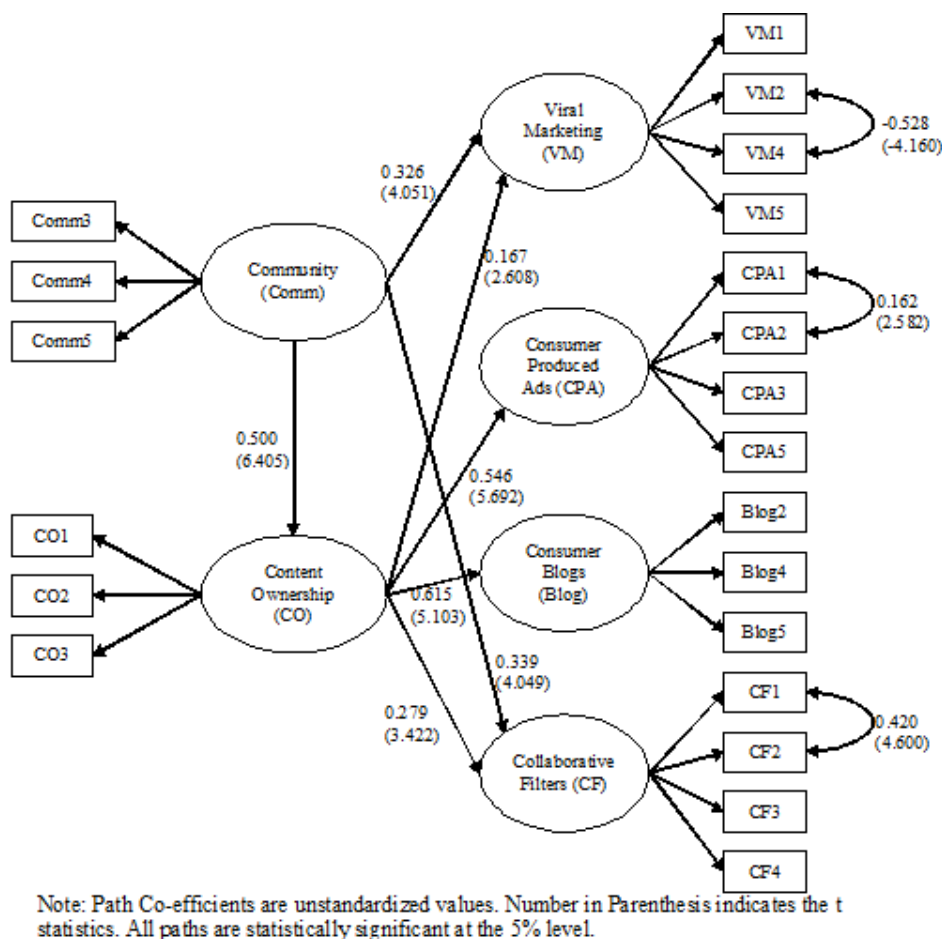


Figure 2. Modified final model

**5. Discussion**

Our study sought to understand consumer attitudes toward WWOM tools and the factors influencing those attitudes. As hypothesized, being a part of a community had a strong positive influence on attitudes toward the various WWOM tools. Similarly the sense of ownership of the content of information exchanged also positively influenced the attitudes toward WWOM.

WOM between consumers may be a function of consumer product involvement, to the extent such involvement is enduring and not situational (Dwyer, 2006). It is likely that a consumer who voluntarily shares product-related information with an online discussion forum community has a high degree of product involvement. Consumers who have a positive attitude towards WWOM tools may be more predisposed to share views with their own consumer social network; they may also be more involved with the products they use.

It is useful to focus on the mediation of the relationship between community and consumer blogs by the content ownership construct. Although consumer blogs cater to the needs of consumer communities (thereby justifying the direct path), it is possible that consumers get a sense of ownership on certain contents of the blog over time—one reason being their enduring involvement with a particular product. This sense of ownership driven by enduring involvement might encourage WWOM behaviors. This line of reasoning also supports the temporal sequencing (between the independent and mediating variables) that is assumed in our model.

**6. Limitations and Future Directions**

This study is not without some limitations. Our respondent profile consisted of both student and non student respondents and their age ranged between 19 years to a maximum of 75 years. Although this increases the generalizability of the findings, this wide age range might have an influence on the specific attitudes and behavior toward the novel communication tools. Future research might want to focus on different population



segments to validate our model and its implications. Similarly, a larger sample size is desirable in future research, because it will help us validate our results on a hold-out sample. Future research could explore in greater depth the marketing implications stemming from the community and content ownership concepts that we include as antecedent factors in our model. More specifically, it will be useful if research can delineate specific ways in which marketers can indirectly encourage and nurture these factors.

## 7. Implications and Conclusion

With the growing use of online purchases, Web-related word of mouth (WWOM)—information generated by consumers for consumers—has become a very important source during the information search process for many consumers. Our study contributes two key insights in this regard. First, it reaffirms the importance of the sense of community or an organized social network that channels this information resource from consumers for the benefit of other consumers in the community. In other words, a consumer's attitude toward a specific WWOM tool basically depends on how well his/her consumer community is structured to support WWOM activities. Second, such attitudes are also positively influenced by the sense of ownership of the information shared during WWOM behaviors.

These findings have substantive implications for the marketing community. Prior research (Schouten & McAlexander, 1995; Fournier et al., 2000) vividly reinforces the power of consumer communities built around a brand such as Harley-Davidson. The popularity and power of Harley Ownership Groups (HOGs) providing an interesting case study on how marketers can harness consumer communities. Our study logically extends this research theme to the next logical, and more contemporary, frontier for consumer communities i.e., the online community. Although consumers should ultimately form and structure their own online communities, the Harley Davidson experience reinforces the notion that marketers can take steps that support and reinforce this process (Fournier et al., 2000). When online consumer communities are carefully nurtured by marketing managers, they can help sustain and strengthen brand equity for their products over the long term. These steps can also validate and solidify the ownership of information content within the online communities. Overall, when the above steps are successfully accomplished by marketers, our research suggests that consumers will establish favorable attitudes toward WWOM tools in ways that will enhance the value they receive from products they use and like. The Harley Davidson success story suggests that consumer communities may be amenable and response to indirect and supportive influence from marketers.

The voluminous information in online environments may often cause consumer suspicion and confusion, thereby motivating consumers to rely on information generated by other similar consumers. Innovations in the Internet domain have produced a multitude of communication tools that support WWOM activities. Looking into the importance of such WWOM tools, this study proposed to understand the determinants of the WWOM tools and the attitude towards these tools through a theoretical model that was empirically tested. The findings confirmed most of the proposed hypotheses and some interesting findings. This was the relationship between the belongingness to a community and the attitude towards weblogs. The relation as shown by the empirical analysis was completely mediated by consumers' sense of content ownership. This finding also extends the findings of Lu & Lee (2012) who found a direct relation between social capital and blogging behavior. Our study demonstrates that this relationship is mediated by the extent to which consumers feel they own their content related to the blogs.

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