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An empirical study of Facebook users

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Abstract

Purpose – The purpose of this study is to examine the factors influencing online word-of-mouth communication engagement behavior of college students on social networks such as Facebook.

Design/methodology/approach – A survey instrument designed to measure the constructs assumed to have an influence on word-of-mouth communication on social networks was administered to college students who are actively using Facebook. Structural equation model was used to test the hypothesized relationships.

Findings – Results of the study show that social capital and trust were two important factors that positively influenced opinion-giving and opinion-seeking behaviors, which, in turn, influenced the word-of-mouth behavior on Facebook. Although these results were not significantly different from the findings reported in the literature, the results emphasize that the impact of social capital and trust on word of mouth increased through the opinion-seeking/giving path.

Research limitations/implications – Although the college students are ideal users for Facebook, the use of college students could limit the generalizability of the results to other populations. Furthermore, the authors have only investigated a few constructs that are assumed to contribute to the online word-of-mouth communication behavior. Other studies should include a more comprehensive list of construct and test their impact.

Practical implications – The study contributes to the literature on word-of-mouth communication in online social networking sites. Organizations could benefit from this knowledge by understanding that social networking sites should be considered as a key component of the integrated marketing communication strategy, and specific targeting efforts could be directed for those users with high levels of opinion-seeking/giving.

Originality/value – Although online social networking has been popular, not many empirical studies have been conducted on consumers' engagement in the word-of-mouth communication in social networking sites, such as Facebook. This study attempts to fulfill the gap.

Keywords Facebook, Structural equation model, Online word-of-mouth

Paper type Research paper

Introduction

Online social networking has become a global phenomenon and an integral part of the daily lives of many consumers around the USA and around the world (Kaul, 2012). Along with traditional email communication, blogs, message boards, chat rooms, social

networking sites and instant messaging, there has been a creation of online communities where people interact, communicate, follow trending issues and express their opinions more freely and actively than ever before across the globe. Broadband access, mobile communication tools and easy-to-use software technology have allowed consumers to get their voices heard instantly, exert greater influence on issues that matter to them (issues that offer practical and emotional benefits) and provide crucial information by either volunteering (online product ratings and reviews) or on-demand when requested by others (Valenzuela *et al.*, 2012). Studies show that more than a third of online participants review products, frequently post opinions and participate in online content creation activities (Riegner, 2007).

According to the Pew Research Center Report (Hampton *et al.*, 2011), 79 per cent of American adults use the Internet, and nearly 59 per cent of Internet users say that they use at least one social networking site. Facebook, a popular social networking site, allows anybody around the world to sign up for free and helps users to easily communicate, follow and/or participate in real-time discussions with anybody else with a Facebook account. Reportedly, 52 per cent of Facebook users and 33 per cent of Twitter users engage with the platform daily. In addition, studies show that the an average Facebook user has 229 Facebook friends, 7 per cent of which they have never met (Hampton *et al.*, 2011). The typical Facebook user regularly interacts with their friends by posting messages about very specific aspects of their personal lives, popular/unpopular trending issues and/or their opinions or experiences with products/ companies. Typical online consumers talk with their friends in chat rooms or through instant messaging, provide their opinions or feelings about these products on their personal blogs, write product reviews or even, in some cases, post videos on YouTube. Previous research shows that this form of communication is an important resource for many consumers and may be considered more effective than advertising in influencing certain purchase decisions (Peterson and Merino, 2003). Considering the significant future growth trends in such activities, consumers have enormous opportunities to actively get engaged in online word-of-mouth communication. Social networking sites, such as Facebook, allow users to talk about their favorite interests and hobbies, not in front of strangers, but to people they consider as "friends" (Shih, 2009). Companies can be added as a "like" to the list of friends, and users can closely follow the information coming from these companies. It is imperative that marketers utilize the positive consumer engagement with products by developing effective online word-of-mouth communication strategies.

Therefore, marketers and researchers alike need to understand more about the online word-of-mouth communication process and examine the factors that contribute to consumer involvement in online word-of-mouth communication. The objective of this study is to empirically investigate the factors that contribute to consumers' participation in online word-of-mouth activities by testing some of the relationships identified in Chu's (2009) study. Using the salient factors cited in the literature, the present study conceptualizes a number of dimensions and antecedents of online word-of-mouth communication and hypothesizes the relationships among these by using a structural model. Findings of this study are expected to contribute to our knowledge with regards to learning more about those consumers who are more likely to get actively engaged in online word-of-mouth and provide guidance to marketers to identify and target those "leaders" in promoting their products.

4

Literature review

Word-of-mouth communication is frequently assumed to play an important role in affecting consumer attitudes and purchase intentions (Xia and Bechwati, 2008; Sen and Lerman, 2007; Chevalier and Mayzlin, 2006). Literature indicates that world-of-mouth communication is more influential than editorial recommendations or advertisements (Trusov *et al.*, 2009; Smith *et al.*, 2005) because of its credibility and persuasiveness (Mayzlin, 2006; Godes and Mayzlin, 2004; Gruen *et al.*, 2000). The extensive spread of the Internet around the world has created an effective medium for instant communication at low or no cost, and online communication has become an important platform for consumers to express their opinions about experiences concerning products (Davis and Khazanchi, 2008; Xia and Bechwati, 2008; Brown *et al.*, 2007). Internet technologies have transformed traditional word-of mouth communication into electronic platforms, such as online discussion forums, bulletin boards, blogs and consumer reviews (Li and Du, 2011; Weinberg and Lenita, 2005). Consumers easily offer their opinions and experiences related to product consumption online, and this information can reach a large number of people who are geographically dispersed. Frequently posted product reviews on the Internet have become an important form of online word-of-mouth communication, and other consumers increasingly look for online product reviews by their peers before making purchase decisions (Adjei *et al.*, 2009; Zhu and Zhang, 2010).

More recently, other online platforms such as social media sites (i.e. Facebook) have become a common place for product discussions and recommendations. Facebook is by far one of the largest social networking sites with over 800 million users who frequently log-on to the site every day. Facebook creates a platform for users to talk about their favorite interests and hobbies with "friends" (Shih, 2009). Therefore, suggestions and recommendations from friends may be considered to be a more influential source of product information. Consumers might be more receptive to such information and, perhaps, are more likely to try a product because of the recommendation by their friends (Leskovec *et al.*, 2007; Iyengar *et al.*, 2011). A recent study argued that this type of word-of-mouth communication influences consumer evaluations of consumption experiences (Moore, 2012). Researchers argue that social networks have changed consumer-to-consumer communication, and these social networks have become an important marketing tool (Chu and Kim, 2011).

Consumers are motivated to use social networking sites for a variety of reasons. Xu *et al.* (2012) discussed several different theoretical reasons and concluded that gratification, utilitarian motivation and social presence provided explanations for the user motivations to use social networking sites. Using social psychology literature, Cheung and Lee (2012) identified different perspectives that explain why consumers spread electronic word-of-mouth communication in online opinion platforms, such as Facebook (egoism, collectivism, altruism and principalism). They concluded that a sense of belonging had the most impact on consumers' participation in electronic word-of-mouth communication.

Research model and hypotheses

Ridings and Gefen (2004) conclude that people join online networking sites for a variety of the reasons, such as friendship, social support and recreation. Therefore, spreading product relation information through Facebook can be evaluated from the diffusion of

innovation perspective where the motivations can be studied. In this process, consumers could be motivated to share information about products by a variety of factors, such as obligation, pleasure or desire to help others. We adopt the diffusion of innovation as the theoretical framework to understand the characteristics of consumers who engage in word of mouth on Facebook.

Marketers could potentially influence customers' word-of-mouth communication by getting them engaged in product discussions in various platforms. Accordingly, engaging customers is considered crucial to influence participation in positive word-of-mouth communication and has emerged as a central concern in brand management strategies (Tripathi, 2009; Gambetti and Graffigna, 2010). By engaging the customers, marketers are expected to benefit in the form of frequent purchases, higher sales and profits, better customer retention and, more importantly, positive word-of-mouth communication (Tripathi, 2009). Wang (2006) presents engagement as a way of breaking through the advertisement clutter. Therefore, it is important for marketers to understand the factors influencing online word-of-mouth communication and that understanding such factors should provide valuable information to the marketers. In our research model, we look into the correlates of online word-of-mouth communication that help us to explain the involvement in such behavior. Previously, researchers have studied different characteristics and motivations of consumers who get involved with online word-of-mouth communication. Usually, characteristics such as innovativeness, social connection, involvement, experiences and other demographic factors were considered important in understanding consumers' engagement in word-of-mouth communication (Rogers, 1995; Richins and Root-Shaffer, 1988; Foxall, 1988). Similar to Chu's (2009) study, we conceptualize the factors of opinion leaders/seekers, innovativeness, social connection and trust that would influence a user's online word-of-mouth communication. We support the views that consumers are interested in transmitting word-of-mouth communication in the online environment because of the anticipated social benefits of conversations and social relationships. Consumers have a variety of social needs, such as attention, friendship or simply "being heard", and talking about products online can fulfill these needs. Word-of-mouth transmission ultimately means using existing relationships to gain social (i.e. belongingness) or personal benefits (i.e. information to ease the decision-making process). Therefore, online word-of-mouth communication may be seen as a way to build social capital. Furthermore, Wang and Fesenmaier (2003) argued that consumers participate in online discussions because they are motivated by the benefits sought for themselves (i.e. information) and inclined to offer help to others in their online community. Brown and Reingen (1987) argued that social capital plays an important role in the process of online word-of-mouth transmission and found that social capital has a significant role in the referral flows. Social relationships are an important reason for consumers to use Facebook, and social networking is a unique nature of communication that develops social relationships which contribute to online word-of-mouth communication. In this process, trust plays an important role and has been found to facilitate the exchange of information between friends because of its contribution to the perceived credibility information – information source is trusted in a social relationship (Robert et al., 2008). Therefore, the conceptual model used in this study is presented in Figure 1.

Trust
Trust is assumed to influence consumers' willingness to engage in online word-of-mouth communication. Trust can be defined as "[…] a willingness to rely on an exchange partner in whom one has confidence" (Moorman *et al.*, 1993, p. 82). Trust is defined as confidence in the behavior of the partner or one's ability to predict others' behavior (Carroll *et al.*, 2007; Gundlach and Murphy, 1993; Moorman *et al.*, 1993). Harris and Dennis (2011) and Porter and Kramer (2011) argue that trust is central when customers purchase products online, and it is essential in driving value from customers to online communities. Customers are more likely to trust their friends on Facebook rather than expert opinions on blogs or product review pages with opinions (Chu and Kim, 2011). Rather than reading anonymous reviews of others, comments posted by Facebook friends may be perceived as more credible and trustworthy. Therefore, perceived trust should be analyzed as one of the factors that influence consumers' engagement behavior in online word-of-mouth communication.

H1. Perceived trust will positively influence opinion-seeking behavior.

Innovativeness
Previous studies argue that consumers who are experimental and open to new ideas/experiences are more likely to seek information from others. Midgley and Dowling (1978, p. 235) defined innovativeness as "the degree to which an individual makes innovation decisions independently of the communicated experience of others". Hirschman (1980, p. 285) conceptualized innovativeness in terms of novelty-seeking and defined it as "the desire to seek out the new and different". Accordingly, there would be a positive relationship between innovativeness, opinion leadership (Flynn *et al.*, 1996; Robertson and Myers, 1969; Summers, 1970; Zaltman *et al.*, 1973) and information-seeking (Rogers, 1995). Facebook users with higher innovativeness are more likely to be opinion leaders rather than opinion seekers (Hirschman and William, 1978; Tsang and Zhou, 2005). With the opinion leader, higher innovativeness is useful because being original is necessary, as people tend to follow what is trendsetting. Not to mention, on a psychographic level, opinion leaders are noted to be more innovative than non-leaders (Tsang and Zhou, 2005).

H2. Innovativeness will positively influence opinion-seeking behavior.

Social capital
Adler and Kwon (2002, p. 17) defined social capital as the "[…] goodwill produced by the fabric of social relations and that can be mobilized to facilitate actions". Social capital
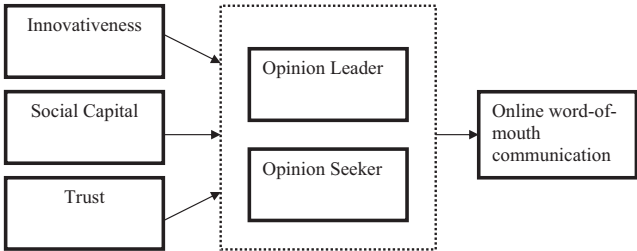

Figure 1.
Conceptual model

allows a person to obtain resources from other members of the networks they belong to (Coleman, 1988; Nahapiet and Ghoshal, 1998). According to the social capital theory, individuals of a social network are expected to contribute reciprocal efforts and obligations to accumulate "the collectivity-owned capital" (Bourdieu, 1986, p. 249). Therefore, social capital may be an important factor in influencing consumers' use of social networking sites where they get engaged in online word-of-mouth communication.

H3. Social capital will positively influence opinion leadership behavior.

Opinion leadership and opinion-seeking behaviors
The opinion leader has been defined as somebody who enjoys being the one to advertise to other people certain products or brands, rather than following the trend (Myers and Robertson, 1972). On the opposite end, there is the opinion seeker who, instead of leading the trend, tends to research and follow what other people tell them is a good product or brand to purchase. Opinion leaders influence the members of their social network by disseminating information to others (Chaney, 2001). Opinion leaders are assumed to exhibit behaviors such as online forwarding and chatting (Feick and Price, 1987; Phelps *et al.*, 2004). On the other hand, opinion leaders use the Internet to exchange information with friends. The opinion seekers may become more confident online because of the lack of social pressure and, therefore, share information with others. Facebook presents an online community with similar interests and facilitates an environment for communication.

Based on the literature discussions above, we conceptualize that trust, innovativeness and social capital will influence consumers' online word-of-mouth communication behavior through the opinion-leading/seeking construct. Therefore, we offer the following hypotheses:

H4. Opinion-seeking and opinion leadership will positively influence online word-of-mouth communication engagement behavior.

Study methodology
Data collection and sample
Data for the study were collected from students enrolled in degree-seeking programs at the Pennsylvania State University, York Campus. The designed study questionnaire includes measures for the constructs and demographic/background questions. Respondents were selected on campus by the authors, and they were assured confidentiality. They were asked to participate in the study to help the current undergraduate research project and to also obtain extra credit toward a specific course to increase their participation grade and completion rates in the study. Approximately 200 questionnaires were distributed using email. Although a convenience sampling procedure was used in the study, we did not allow them to participate in the study if they did not use Facebook. After a week, $n = 149$ completed questionnaires were returned and were used for the analyses.

Measures
There were six measures used to assess the constructs hypothesized in the conceptual model. Sun *et al.* (2006) and Chu (2009) used an extensive literature review in their effort to develop these scales, and some of the scales were modified to fit into the online

environment. Therefore, in this study, we have adopted those relevant scales from Sun *et al.* (2006) and Chu (2009). Innovativeness (Goldsmith and Hofacker, 1991) was measured using an eight-item Likert-type scale, ranging from strongly agree (5) to strongly disagree (1). Similarly, opinion leadership and opinion-seeking were measured on six-item scales, ranging from strongly agree (5) to strongly disagree (1). We used the social capital scale used by Chu (2009), which was measured using a ten-item scale, and trust was measured using a seven-item scale (adopted from Chu, 2009). Finally, engagement in online word-of-mouth communication was measured using a nine-item scale adopted from Sun *et al.* (2006).

Analysis and results
Descriptive and relational analyses were performed to analyze the data. Table I shows the sample characteristics.

This table shows that gender was an approximately equal split (53 per cent male and 47 per cent female), approximately 85 per cent of the participants were below the age of 25, more than 70 per cent of the subjects had over 200 friends on their account, 77 per cent said their main purpose of Facebook was to socialize with their friends, more than 70 per cent of them spent less than 1 hour a day on Facebook and about half of them had other social networking accounts, and more than 70 per cent used Facebook mobile. We believe these are very similar to the overall social network users' profile, and hence, we consider the sample used in this study as a good representation of the target population.

We used Cronbach's alpha to assess the construct reliabilities. Table II shows the constructs and items used in this study, along with reliability scores. Table III shows item mean and standard deviations.

The scales used in the study reflected reasonable reliability scores based on Cronbach's alpha coefficients (all coefficients were above 0.7 with an exception of opinion-seeking). These results indicate that the scales had adequate measurement properties and were appropriate for further analyses.

Table III shows the correlation coefficients among the constructs used in the study. To calculate these correlations, we calculated average scores for the items in the construct. Table IV shows that all constructs had significant correlation scores.

The conceptualized model was tested using a structural equation model to analyze the hypothesized relations between the constructs. The data were explored for outliers; there were none. Using measure purification, the number of scale items were reduced and retained for each subscale (Joreskog and Sorbom, 1988). Multivariate normality was assessed by comparing Mardia's (1970) coefficient against its critical ratio (Byrne, 2001). All subscale data were found to be acceptably normal. The correlation matrix shows that all correlation coefficients are significant at $p < 0.001$ level (Table III). Furthermore, all items retained in the model had significant loadings on their corresponding constructs with significant t values ($p < 0.001$), the lowest t value being greater than 7.0 for the dataset. Moreover, all factor loadings were significant, indicating convergent validity (Anderson and Gerbing, 1988). The model had a significant chi-square (198.78, 145, $p < 0.000$), which was expected given its sensitivity to the large data set. However, the structural model presented in Figure 2 provided a good fit to the data based on several indices used statistically (Comparative fit Index (CFI) = 0.96, Goodness of fit Index (GFI) = 0.88, Incremental fit Index (IFI) = 0.96, and Root mean square error of approximation (RMSEA) = 0.05). Total explained variance by the model was $r^2 = 0.45$.

Characteristics	Frequency	Relative frequency
Gender		
Male	79	53
Female	70	47
Age (years)		
Under 20	60	43
20-25	58	39
25-30	15	10
Over 30	16	11
Number of Facebook friends		
Under 100	15	10
100-200	28	19
200-300	24	16
300-400	33	22
Over 400	49	33
Main purpose for using Facebook is to		
Socialize with friends/family	115	77
Make myself feel more social	6	4
Generate ideas for businesses/social groups	5	3
Network for a job	2	1
Have a replacement for my email and instant messaging	0	0
Keep in touch with people who live far away or went to my high school	17	12
How much time spent on Facebook each day		
Less than 10 minutes	25	17
10-30 minutes	42	28
30-60 minutes	42	28
1-2 hours	21	14
Over 2 hours	19	13
Other networking sites used besides Facebook		
Yes	73	49
No	74	50
Use Facebook mobile		
Yes	107	72
No	38	25

Table I.
Sample
characteristics
($n = 149$)

The structural model used to test the hypothesized relationships and the details of the path coefficients are shown in Figure 2.

Figure 1 shows that all paths coefficients are significant and, hence, support three of the hypothesized relationships (*H1*, *H2* and *H4*). Our analysis did not indicate any direct or indirect relationship between innovativeness and engagement in online word-of-mouth communication. This figure also shows that we have identified a direct relationship between trust and engagement in online word-of-mouth communication, but the strength of the relationship is higher through the opinion-seeking path.

10

Measures[a]	Mean	SD
I am among the first in my circle of friends to try new products when it is available	3.13	0.961
If I heard that some new products were available online, I would be interested to obtain it	3.26	0.967
Compared to my friends, I buy a lot of new products	2.94	1.067
I am the first in my circle of friends to know the titles of the latest music	2.94	1.158
I like to obtain new products before other people do	3.03	1.111
I rarely purchase the latest fashion styles until I am sure my friends approve of them	2.28	1.151
It is important that others like the products and brands I buy	2.34	1.190
When buying products, I generally purchase those brands that I think others will approve of	2.60	1.191
If other people can see me using a product, I often purchase the brand they expect me to buy	2.38	1.082
I like to know what brands and products make good impressions on others	2.90	1.245
I achieve a sense of belonging by purchasing the same products and brands that others purchase	2.43	1.152
If I want to be like someone, I often try to buy the same brands that they buy	2.38	1.189
I often identify with other people by purchasing the same products and brands they purchase	2.38	1.088
I often persuade my contacts on the social networking site to buy products that I like	2.49	1.183
My contacts on the social networking site rarely come to me for advice about choosing products	2.94	1.146
My contacts on the social networking site pick their products based on what I have told them	2.67	1.130
My opinion of products seems not to count with my contacts on the social networking site	2.72	1.109
On the social networking site, I often influence my contacts' opinions about products	2.90	1.173
When I consider new products, I ask my contacts on the social networking site for advice	2.70	1.177
I don't need to talk to my contacts on the social networking site before I buy products	3.65	1.185
I like to get my contacts' opinions on the social networking site before I buy new products	2.60	1.090
I rarely ask my contacts on the social networking site about what products to buy	3.38	1.017
I feel more comfortable choosing products when I have gotten my contacts' opinions on them on the social networking site	2.85	1.221
When choosing products, my contacts' opinions on the social networking site are not important to me	3.35	1.150
Interacting with people on the social networking site makes me interested in things that happen outside of my town	3.52	1.094

Table II.
Item mean and standard deviations

(continued)

Measures[a]	Mean	SD
Interacting with people on the social networking site makes me want to try new things	3.42	1.134
Interacting with people on the social networking site makes me interested in what people different from me are thinking	3.40	1.090
Talking with people on the social networking site makes me curious about other places in the world	3.66	1.063
Interacting with people on the social networking site makes me feel like part of a larger community	3.40	1.138
Interacting with people on the social networking site makes me feel connected to the bigger picture	3.41	1.121
Interacting with people on the social networking site reminds me that everyone in the world is connected	3.50	1.160
I am willing to spend time to support general community activities on the social networking site	3.11	1.110
Interacting with people on the social networking site gives me new people to talk to	3.36	1.079
Generally speaking, most contacts on my "friends" list on the social networking site can be trusted	3.33	0.976
I feel confident about having discussions with the contacts on my "friends" list on the social networking site	3.48	0.970
The contacts on my "friends" list on the social networking site will do everything within their capacity to help others	2.95	0.985
I trust most contacts on my "friends" list on the social networking site	3.43	0.974
I have confidence in the contacts on my "friends" list on the social networking site	3.36	0.939
My contacts on my "friends" list on the social networking site offer honest opinions	3.36	0.931
I can believe in the contacts on my "friends" list on the social networking site	3.27	0.890
I tend to use the "Send this site to my friend" function in a Web site when I find interesting products	2.40	1.202
I like to forward my friends' emails containing information or opinions about the products that I like	2.22	1.126
I like forwarding interesting emails about products to my friends	2.39	1.223
I tend to forward my friends positive reviews on products	2.37	1.193
I tend to forward my friends negative reviews on products	2.28	1.090
I like to share with others some interesting products that I have purchased/used	2.93	1.274
I like to share with others my favorite products	2.97	1.199
People tend to ask for my opinions about products	2.89	1.169
I tend to persuade others to buy the products that I like	2.78	1.196

Note: [a] Items measured on a five-point scale, ranging from strongly disagree to strongly agree

Table II.

12

Measures/items*	Cronbach α
Trust	0.886
Generally speaking, most contacts on my "friends" list on the social networking site can be trusted	
I feel confident about having discussions with the contacts on my "friends" list on the social networking site	
The contacts on my "friends" list on the social networking site will do everything within their capacity to help others	
I trust most contacts on my "friends" list on the social networking site	
I have confidence in the contacts on my "friends" list on the social networking site	
My contacts on my "friends" list on the social networking site offer honest opinions	
I can believe in the contacts on my "friends" list on the social networking site	
Innovativeness	0.724
I am among the first in my circle of friends to try new products when it is available	
If I heard that some new products were available online, I would be interested to obtain it	
Compared to my friends, I buy a lot of new products	
I am the first in my circle of friends to know the titles of the latest music	
I like to obtain new products before other people do	
I rarely purchase the latest fashion styles until I am sure my friends approve of them	
It is important that others like the products and brands I buy	
When buying products, I generally purchase those brands that I think others will approve of	
Social capital	0.927
Interacting with people on the social networking site makes me interested in things that happen outside of my town	
Interacting with people on the social networking site makes me want to try new things	
Interacting with people on the social networking site makes me interested in what people different from me are thinking	
Talking with people on the social networking site makes me curious about other places in the world	
Interacting with people on the social networking site makes me feel like part of a larger community	
Interacting with people on the social networking site makes me feel connected to the bigger picture	
Interacting with people on the social networking site reminds me that everyone in the world is connected	
I am willing to spend time to support general community activities on the social networking site	
Interacting with people on the social networking site gives me new people to talk to	
I come in contact with new people on the social networking site all the time	

Table III.
Measures, items and reliabilities

(*continued*)

Measures/items*	Cronbach α
Opinion leadership	0.717
I often persuade my contacts on the social networking site to buy products that I like	
My contacts on the social networking site rarely come to me for advice about choosing products	
My contacts on the social networking site pick their products based on what I have told them	
My opinion of products seems not to count with my contacts on the social networking site	
On the social networking site, I often influence my contacts' opinions about products	
When they choose products, my contacts on the social networking site do not turn to me for advice	
Opinion seeking	0.523
When I consider new products, I ask my contacts on the social networking site for advice	
I don't need to talk to my contacts on the social networking site before I buy products	
I like to get my contacts' opinions on the social networking site before I buy new products	
I rarely ask my contacts on the social networking site about what products to buy	
I feel more comfortable choosing products when I have gotten my contacts' opinions on them on the social networking site	
When choosing products, my contacts' opinions on the social networking site are not important to me	
Word-of-mouth communication	0.915
I tend to use the "Send this site to my friend" function in a Web site when I find interesting products	
I like to forward my friends' emails containing information or opinions about the products that I like	
I like forwarding interesting emails about products from one group of my friends to another	
I tend to forward my friends positive reviews on products	
I tend to forward my friends negative reviews on products	
I like to share with others some interesting products that I have purchased/used	
I like to share with others my favorite products	
People tend to ask for my opinions about products	
I tend to persuade others to buy the products that I like	

Note: *Items measured on a five-point scale, ranging from strongly disagree to strongly agree

Table III.

Discussion

The objective of this study was to empirically investigate the factors contributing to consumers' engagement in word-of-mouth communication on Facebook. Using the salient factors cited in the literature, this study conceptualized that social capital, trust and innovativeness were main factors influencing word-of-mouth communication on Facebook, and their effects were mediated by the opinion-seeking and -giving behaviors. Using a structural equation model, we tested the impact of these dimensions on consumers' engagement behavior of word-of-mouth communication on Facebook.

This study mainly used the constructs suggested in the literature to test the hypothesized relations regarding college students' engagement behavior in online word-of-mouth communication. Our findings show that social capital and trust positively influenced opinion-giving and -seeking behaviors, which, in turn, influenced the online word-of-mouth engagement behavior of college students. Although these results are not significantly different from the results reported by Chu (2009), our results underscore the path of influence – that is, the strength of the influence of trust and social

Constructs	(1)	(2)	(3)	(4)	(5)
Innovativeness (1)	–				
Opinion leadership (2)	0.398	–			
Opinion seeking (3)	0.304	0.400	–		
Social capital (4)	0.276	0.254	0.232	–	
Trust (5)	0.190	0.273	0.261	0.406	–
Engagement in word of mouth (6)	0.520	0.366	0.271	0.578	0.328

Note: All correlations are significant at $p < 0.01$

Table IV.
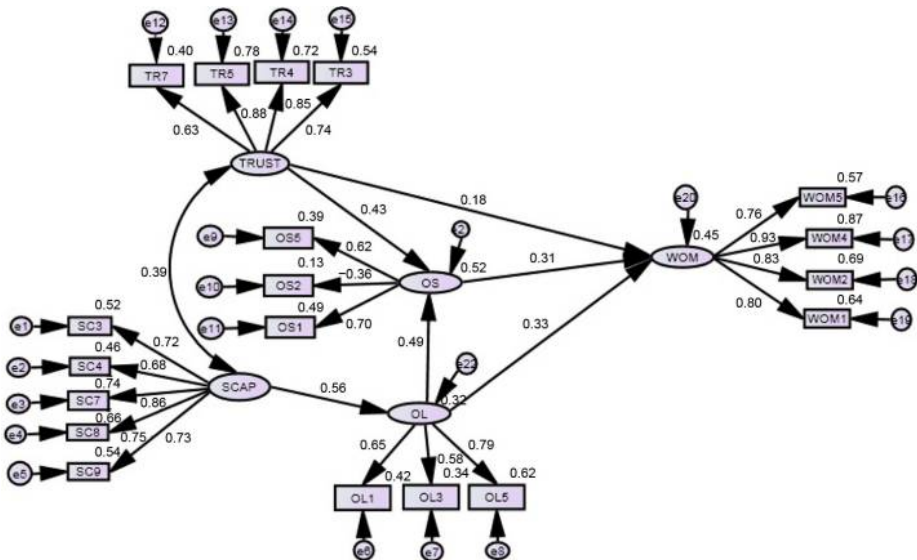Construct correlations

Figure 2.
Structural model tested

capital increase through the opinion-seeking and -giving path. When the users trust their contacts on Facebook, their willingness to rely on the product information from their friends increases, but it increases more through the opinion-seeking route. In another words, opinion-seeking users that have trusted close friends will be more likely to participate in online word-of-mouth communication and actively make product recommendations to their friends. Furthermore, social capital, along with the opinion leadership behaviors, would also positively influence the engagement behavior in online word-of-mouth communication.

The use of online social networking has become a popular tool among college students to mainly socialize with their friends. The literature review indicates that this trend will continue at an increased pace, especially in the mobile space for the foreseeable future. Accordingly, marketers and advertisers should have a strong interest in this space to engage their consumers in product/brand discussions and possibly influence their behavior for playing a more active role in recommending specific products to their friends. Therefore, as social networking sites become more popular worldwide (Raacke and Bonds-Raacke, 2008), significant opportunities are presented for the marketers to benefit from their online word-of-mouth communications.

Managerial and research implications

Facilitated by social networking sites, it is expected that consumers will continue to build and expand their social networks and participate in real-time discussions about their product experiences. In this process, they will continue to get actively involved in information sharing and dissemination about their purchase decisions. They will value information obtained from peers or friends greatly and will be willing to spread their knowledge and opinions to others.

Our study confirms that studying certain variables of online social behavior (i.e. social capital and trust) helps our understanding of sharing product information on Facebook. Therefore, the findings reported in this study provide valuable insights to managers and marketing strategy decision-makers. They emphasize that social networking sites, such as Facebook, should be the essential component of the overall integrated communication process and ought to be used strategically to support the overall marketing communication objectives. Marketers should be part of the social networks of their potential customers and develop one-on-one marketing communications to help customers. They should study consumer online behavior and track opinion seekers to build close relationships. Given the advantages social networking sites offer with regards to targeting, specific targeting efforts could be made for those users with high levels of opinion leaders and opinion seekers.

We believe that our study has important implications for marketers. Considering the growth of the consumer participation in online social networks and actively posting their opinions on product experiences, marketers should try to reach such consumers and actively get them engaged in the process and, if needed, offer incentives for their honest opinion postings (i.e. paying for product-related opinion postings). Also, marketers should not let consumers' product-related postings go without an official company response. For example, hotels could follow consumer postings on Tripadvisor.com and provide responses to customers' positive or negative comments to show their commitment to improving customer experiences.

16

Conclusion

Results of the structural equation model indicate that social capital and trust positively influence online word-of-mouth engagement behavior of college students on Facebook. It is important to underscore that the strength of the influence of trust and social capital increased through the opinion-seeking and -giving path. When the users trust their contacts on Facebook, their willingness to rely on the product information from their "friends" increases, but this effect is stronger through the opinion-seeking route. In other words, opinion-seeking users that have trusted close friends will be more likely to participate in online word-of-mouth communication and actively make product recommendations to their friends. However, innovativeness did not show any statistically significant impact on engagement behavior.

Limitations and future research

A few limitations of this study should be noted. Although college students are ideal users for Facebook, the convenience sample of college students used in this study limits generalizability of the findings to the entire college student population or to other populations. We used self-explicated information to assess an individual's likelihood of engaging in word-of-mouth communication on Facebook. Future studies should use more objective measures, such as number of product-related posts by an individual to measure their role in spreading product-related information. Furthermore, we have only investigated a few constructs that are assumed to contribute to the online word-of-mouth communication behavior. Other studies should include a more comprehensive list of constructs and test their impact. Finally, future studies should investigate the effectiveness of online word-of-mouth communication with actual product purchases.

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20

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