



The Impact of Social Factors on Electronic Word-Of-Mouth (E-WOM) Engagement Behaviors in Online Community Websites

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Abstract. In today's market, business transactions and communications with customers take place on digital platforms such as e-commerce and social media. This study aims to investigate the impact of social factors, namely social capital, social identity, and social influence, on the electronic word-of-mouth (e-WOM) engagement behaviors of participants in online community websites. Based on the past literature, the conceptual model and the hypotheses were developed to explain the relationships between social factor constructs and e-WOM constructs (opinion seeking behavior, opinion giving behavior, and opinion passing behavior). Findings from this study reveal that the social identity construct (customer brand identification) has a significant, positive impact on all the latent constructs of e-WOM. This paper concludes that firms should design their services to be more personalized and customer-oriented for higher e-WOM engagement by identifying community participants' motives for social relationships.

Keywords: social capital · social identity · social influence · electronic word-of-mouth (e-WOM)

1 Introduction

As we have witnessed constant development in the internet, various types of social media are available for consumers, particularly those who want to share their experiences with others. The online community website is one popular digital platform for social interactions and sharing experiences and opinions. Hence, EC companies must change their websites from a place that sells a product to a place that offers a community and functions to facilitate interactions among consumers [1]. In this study, we highlight that the social factors such as social capital, social identity, and social influence observed in the online community are positively associated with the diffusion of electronic word-of-mouth (e-WOM) inside and/or outside the community. This study aims to investigate which social factor has a strong positive influence as an antecedent on e-WOM engagement behaviors of participants in online community websites.

2 Theoretical Development

2.1 Electronic Word-Of-Mouth (e-WOM)

There have been many studies about traditional (offline) word-of-mouth. Research defined it as oral, person-to-person communication between a perceived non-commercial communicator and a receiver concerning a brand, a product, or a service offered for sale [2]. Some research support that consumers are more likely to buy a product based on WOM than advertisement and personal selling offered by the companies [3].

WOM is an important factor in the study of e-commerce and social media. Internet extends consumers' options for gathering product/company information from other consumers and provides the opportunity to offer their own experiences and advice by engaging in WOM electronically. E-WOM is any positive or negative statement made by potential, actual, or former customers about a product or company, which is made available to many people and institutions via the Internet [4].

Past research on e-WOM investigated e-WOM through three aspects [5] behavior indicates that consumers tend to search for information and advice from others when making a buying decision [6]. On the contrary, opinion-giving behavior illustrates that consumers may exert great influence on others' attitudes and behaviors [7]. They are commonly called opinion leaders. Opinion passing behavior, which can uniquely be observed on the internet because of its structure, implies that consumers forward/pass information and their opinions electronically on a global scale [8].

Hence, in this study, opinion seeking behavior (OPS), opinion giving behavior (OPG), and opinion passing behavior (OPP) are used as dependent variables to investigate e-WOM construct.

2.2 Social Capital

Social capital is commonly defined as the goodwill available to individuals and groups. Its source lies in the structure and content of the actor's social relations. Its effects flow from the information, influence, and solidarity it makes available to the actor [9]. It indicates all the benefits acquired from the network of the people.

This social capital is viewed from an external or an internal perspective [9]. An internal, which is intra organizational perspective, focuses on connections with other members of the organization [10]. Intra organizational social capital is distinguished into two forms: bridging social capital and bonding social capital [11].

Bridging social capital refers to the creation of weak ties and occurs when individuals from different backgrounds make connections between social networks, which provides access to more information and opportunities [11]. Hence, based on our review of the research, we developed the following hypothesis.

H1: Bridging social capital in a community website is positively related to users' e-WOM engagement.

Bonding social capital, on the other hand, denotes the creation of close social relationships and occurs when firmly tied individuals provide substantive support for one

another [11]. It helps individuals develop a common understanding of goals and activities within the collective [12]. Due to the strong tie among homogeneous connections, it often does not include interactions outside the group [10]. Hence, in line with our review of the research, we developed the following hypothesis.

H2: Bonding social capital in a community website is positively related to users' e-WOM engagement.

2.3 Social Identity

Social identity is defined as the individual's knowledge that he/she belongs to certain social groups, together with some emotional and value significance to him/her of the group membership [13].

This renowned psychological perspective provides insights into understanding the relationship between customers and companies and supports the study of self-identification and self-esteem in building substantial relationships with companies and brands [14]. Hence, the social identity perspective helps understand customer behavior because customers see themselves as part of a social group [15].

In this study, we use customer brand identification as a latent variable for social identity because it helps to explain motivations and reasons which encourage individuals to relate to companies [13]. Brands can facilitate creating social identity and help customers express their social identification [15]. Hence, based on our review of the research, we developed the following hypothesis.

H3: Customer brand identification in a community website is positively related to users' e-WOM engagement.

2.4 Social Influence

Social influence is a change in an individual's thoughts, feelings, attitudes, or behaviors resulting from interaction with another individual or group [16].

Many online shoppers tend to wait for early adopters' opinions before making a purchase decision to reduce the risk of buying a new product. The research discovered the existence of two kinds of social influence in adopting a new product: normative social influence and informational social influence [1].

Normative social influence creates social pressure for people to adopt a product because those not adopting a product may be treated differently regardless of their preferences. On the contrary, informational social influence is a learning process through which people observe the experience of early adopters on their community website and decide whether to buy the new product [1]. Hence, in line with our review of the research, we developed the following hypothesis.

H4: Normative social influence in a community website is positively related to users' e-WOM engagement.

H5: Informational social influence in a community website is positively related to users' e-WOM engagement.

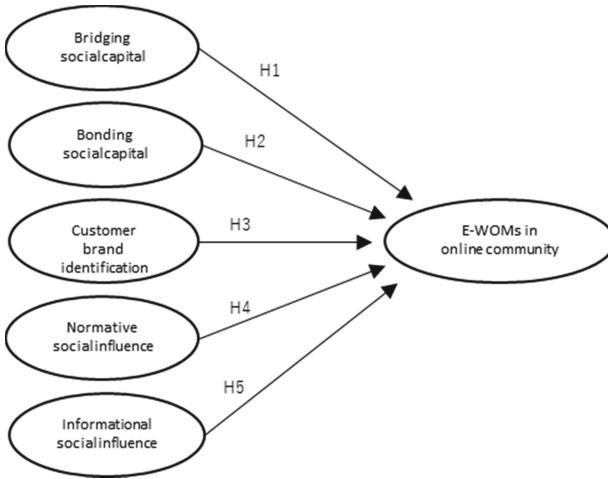


Fig. 1. Conceptual model of antecedents for e-WOM in online community website

The authors developed the conceptual model with these hypotheses to explain the relationships among hypothesized variables, as shown in Fig. 1.

3 Methodology

3.1 Sample and Procedure

An online survey was conducted on November 3 to 10, 2022, to test the hypotheses. The survey was self-administered, so no incentives were used for data collection. A total of 34 online community members of the Nike Zoom Primo website (a platform for fans of NIKE brands; <https://tieba.baidu.com/f?kw=nike%20zoom%20primo>) participated in the survey. Of the 34 voluntary participants, the final sample of 29 respondents was used for data analysis after eliminating incomplete responses. Because the website is written in Chinese and intended to offer a communication platform for Chinese consumers, all the subjects were Chinese. Thus, the questionnaire was written and circulated in Chinese. The sample is assumed to represent the online community population as the target of our research.

3.2 Measures

All the measurement scales used in this study replicated prior research and, in some cases, were modified to fit the context of this study. All questions were developed on a 5-point Likert scale ranging from 5 (strongly agree) to 1 (strongly disagree).

Social capital (bridging social capital and bonding social capital) was measured using a 3-item measure adapted from Karla et al. 2021. Customer brand identification was measured using a 3-item measure adapted from [15]. Both social influence (normative social influence, informational social influence) and e-WOM (OPS, OPG, OPP) variables were measured using a 3-item measure adapted from [5].

Descriptive statistics were used to illustrate the means and standard deviation of the variables to understand the characteristics of the online community participants. Confirmatory factor analysis and structural equation modeling were used to test the model and relationships among the constructs.

4 Results

4.1 Descriptive Analysis

The sample consists of 89.7% of males and 10.3% of females. Respondents' age ranges from 16 to 40 (mean is 24.8). The mean and standard deviation of each measure are shown in Table 1.

4.2 Measurement Model Analysis

Before testing the hypotheses, the reliability and relationship of factor loadings for corresponding constructs should be analyzed. To assess the measurement model, confirmatory factor analysis (CFA) was conducted with AMOS 24, using the two-step structural equation modeling (SEM) approach [17].

Cronbach's alpha of latent constructs was measured to show reliability (>0.80).

Results of CFA reveal that almost all indicators are significantly loaded on their corresponding latent constructs, as shown in Table 1.

Table 2 demonstrates correlations and covariances of the latent constructs in the measurement model. The results show that the reliability of the scales is moderately satisfactory.

4.3 Structural Model Analysis

Table 3 exhibits the results of the structural equation model.

Bridging social capital has a significant, positive impact on opinion giving ($\beta = 1.54$) and opinion passing ($\beta = 0.49$). It has, however, a significant, negative impact on opinion seeking ($\beta = -0.13$). Thus, H1 is partially supported. Bonding social capital is found to have a significant, positive impact on opinion seeking ($\beta = 0.84$). However, it has a significant, negative impact on opinion giving ($\beta = -0.14$) and opinion passing ($\beta = -0.12$). Hence, H2 is not supported. As per H3, customer brand identification seemed to have a positive, significant impact on opinion seeking ($\beta = 0.26$), opinion giving ($\beta = 0.33$), and opinion passing ($\beta = 0.63$); thus, H3 is supported. Normative social influence is found to have no significant relationship with opinion seeking ($\beta = -0.02$) and a significant, negative impact on opinion giving ($\beta = -0.35$). In contrast, it has a significant, positive impact on opinion passing ($\beta = 2.10$). Thus, H4 is not fully supported. By examining the impact of informational social influence on e-WOM, the results illustrate that it has a significant, positive impact on opinion seeking ($\beta = 1.20$) and opinion giving ($\beta = 0.19$). It is found, however, to have a significant, negative impact on opinion passing ($\beta = -0.17$). Thus, H5 is partially supported.

The model fitness indices show that the model fitness level is somewhat weak ($\chi^2 = 618.017$, $\chi^2/df = 2.608$, CFI = 0.393, GFI = 0.448, TLI = 0.293, RMSEA = 0.240), leaving the issue of refinement of data fitness in the future study.

Table 1. Measures, descriptive statistics, reliabilities, and factor loadings

Measures	M	SD	α	SL
Bridging social capital (BRSC)	3.82	1.92	0.961	
I am interested in what goes on in the online community				0.58
interacting with people makes me feel like a part of a larger community				0.62
interacting with people reminds me that every one in the community is connected				0.49
Bonding social capital (BOSC)	3.78	2.32	0.961	
There are several people, I can trust to help solve my problems				0.75
If I need an immediate help, I know someone I can turn to				0.72
In this community website, social norms exist for me to follow				0.38
Customer brand identification (CBI)	3.69	2.09	0.965	
When someone criticizes this brand, it feels like a personal insult				0.24
When I talk about this brand, I usually say “we” rather than “they”				0.68
This brand’s successes are my successes				0.96
Normative social influence (NSI)	3.94	1.97	0.961	
When buying products, I purchase those brands that I think others will approve of				0.43
I often purchase the brand that other people expect me to buy				0.60
I achieve a sense of belonging by purchasing the same products that others purchase				0.57
Informational social influence (ISI)	3.90	2.61	0.961	
If I have little experience with a product, I often ask my friends about the product				0.80
I often consult other people to help choose the product				0.68
I frequently gather information from friends about a product before I buy				0.39
Opinion seeking (OPS)	3.80	2.73	0.963	
I like to get opinions in the community website before I buy new products				0.53
When I consider new products, I ask my contacts in the community for advice				0.57
I feel comfortable selecting products when I got the opinions on them in the website				0.48
Opinion giving (OPG)	3.37	2.04	0.965	

(continued)

Table 1. (continued)

Measures	M	SD	α	SL
I persuade or encourage the contacts in the community website to buy products I like				0.45
I influence my contacts' opinions about product				0.56
My contacts purchase the products based on what I have told them				0.54
Opinion passing (OPP)	3.70	2.16	0.960	
I When I receive information or opinion related to product from a friend, I will pass it along to my contacts in the community				0.33
I When I receive information or opinion related to product from my contacts in the community, I will pass it along to my friend				0.36
I I tend to pass along my contacts' positive reviews of products to other contacts in the community				0.35

Note: M = mean, SD = standard deviation, SL = standard loadings, SMC = squared multiple correlation, α = Cronbach's alpha
 goodness-of-fit statistics: $\chi^2 = 618.017$, $\chi^2/df = 2.608$, CFI = 0.393, GFI = 0.448, TLI = 0.293, RMSEA = 0.240

Table 2. Correlation, covariance values for latent constructs

	1	2	3	4	5	6	7	8
BRSC	3.685	0.750**	0.857**	0.854**	0.778**	0.753**	0.908**	0.884**
BOSC	3.340	5.377	0.667**	0.876**	0.905**	0.907**	0.656**	0.812**
CBI	3.432	3.225	4.352	0.726**	0.740**	0.709**	0.812**	0.807**
NSI	3.223	3.990	2.977	3.862	0.812**	0.825**	0.743**	0.913**
ISI	3.894	5.468	4.022	4.159	6.793	0.916**	0.698**	0.780**
OPS	3.951	5.745	4.042	4.431	6.526	7.466	0.664**	0.773**
OPG	3.559	3.106	3.457	2.983	3.712	3.706	4.167	0.815**
OPP	3.666	4.070	3.635	3.876	4.390	4.563	3.596	4.667

Note: BRSC = Bridging social capital, BOSC = Bonding social capital, CBI = Customer brand identification, NSI = Normative social influence, ISI = Informational social influence, OPS = Opinion seeking behavior, OPG = Opinion giving behavior, OPP = Opinion passing behavior.
 ** $p < 0.001$. Variances are on the diagonal. Covariances are in the lower triangle and correlations are in the upper triangle.

5 Discussion

Previous research has tested various factors influencing the e-WOM engagement of consumers who use various online platforms.

Learned from those research outputs, the relationship between social factors (five constructs) and e-WOM in online community websites was tested in this study. The

Table 3. The Results of the Structural Equation Model

Hypotheses	Strucural Relationships	β
H1	bridging social capital → opinion seeking	-0.13
	bridging social capital → opinion giving	1.54
	bridging social capital → opinion passing	0.49
H2	bonding social capital → opinion seeking	0.84
	bonding social capital → opinion giving	-0.14
	bonding social capital → opinion passing	-0.12
H3	customer brand identification → opinion seeking	0.26
	customer brand identification → opinion giving	0.33
	customer brand identification → opinion passing	0.63
H4	normative social influence → opinion seeking	-0.02
	normative social influence → opinion giving	-0.35
	normative social influence → opinion passing	2.10
H5	informational social influence → opinion seeking	1.20
	informational social influence → opinion giving	0.19
	informational social influence → opinion passing	-0.17

The model fitness indices: $\chi^2 = 618.017$, $\chi^2 /df = 2.608$, CFI = 0.393, GFI = 0.448, TLI = 0.293, RMSEA = 0.240

results of this study illustrate that bonding social capital shows a rather negative relationship with e-WOM engagement. Customer brand identification (social identity) is positively associated with all the e-WOM behavior constructs. Social influence factors (normative and informational influences) are not fully positively associated with e-WOM behaviors, which is different from the past research results of Chu & Kim 2011.

The theoretical implication of this study is that empirical research with a conceptual model proved that social factors are influential antecedents for e-WOM behaviors in online community websites. The results from the study discussed in this paper yield several insights for a better online marketing strategy.

First, identifying community participants’ motives for social relationships enables website operators to design their services to be more customer-oriented for higher e-WOM engagement. For example, operators can provide appropriate services to enhance community coherence and activity where participants look for stronger social bonds and interactions.

Second, we learn that online community participants tend to demonstrate strong loyalty to the brands they adore. Therefore, the company needs to conduct marketing schemes to facilitate the brand’s personalization and marketing communications.

Despite this study’s challenge, some limitations remain and should be noted. First, Chinese samples in this research represent online community participants but do not represent the whole picture of e-WOM engagement behaviors in universal contexts.

Besides that, the sample size is apparently too small. With much larger sizes, samples should be collected from different generations, gender, and nationality background.

Second, possibly driven by the first limitation, the validity of the empirical results is in question, whereas past research on e-WOM using similar scales exhibited higher validity and reliability of the model. Therefore, future research should continue to refine the conceptual model, the measurements, and the data fitness used in the study.

Finally, other possible factors, such as customer engagement, commitment, satisfaction, and perceived value of the products and services, can be used as antecedents to explain the causal relationship with e-WOM.

With profound analysis of past literature from various academic perspectives, future studies should employ psychological or cognitive factors to broaden the approaches to understanding the e-WOM engagement behavior of online community participants.

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