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Antecedents of attitudes toward eWOM communication: differences across channels

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Antecedents of attitudes toward eWOM communication: differences across channels

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Abstract

Purpose – Despite the extensive academic interest in electronic word of mouth (eWOM) communication, consumer attitudes toward eWOM communication have been neglected. The purpose of this paper is to propose a conceptual framework for attitudes toward eWOM communication across digital channels.

Design/methodology/approach – Data were collected through a web-based survey on seven major digital communication channels. ANOVA was applied in order to analyze their differences. In addition, structural equation modeling was used to test the eWOM attitude model, using a sample of 864 participants who have had prior experience with the channels under study.

Findings – Findings indicate that both attitude toward eWOM and its antecedents significantly differ across channels. Additionally, a path analysis model reveals that the original integrated model applies to eWOM communications. Yet, in the case of eWOM, irritating messages may be positively related to attitude toward the channel, and credibility serves as a mediator of message value.

Research limitations/implications – This paper supports the notion that attitude toward eWOM communication significantly differs across media channels. Future research should examine additional implications of attitude toward eWOM, and explore new and evolving channels.

Practical implications – Practitioners should adjust their eWOM media strategy to their objectives; blogs and social networks are more effective for brand attitude formation, whereas web forums enhance message credibility.

Originality/value – To the best of the authors' knowledge, this is the first research study that tests attitudinal differences toward eWOM across digital channels. As such, it contributes to the understanding of people's perception of these platforms.

Keywords Attitudes, Social networks, Electronic word of mouth (eWOM), WOM

Paper type Research paper

Introduction

Word of mouth (WOM) communication, and particularly electronic WOM (eWOM), has attracted researchers' attention and has been intensely discussed in the academic literature (Godes and Mayzlin, 2004; Hennig-Thurau *et al.*, 2010; De Matos and Rossi, 2008; Libai *et al.*, 2010; Mathwick *et al.*, 2008; Sandes and Urdan, 2013; Okazaki *et al.*, 2013; Trusov *et al.*, 2009; Zhang *et al.*, 2011). Despite this academic interest, attitudes toward eWOM communication have been rather neglected. Attitude toward marketing communications has mainly been researched in the framework of advertising literature. The empirical studies in this area have emphasized the importance of attitudes in relation to consumer persuasion (Lutz, 1985; MacKenzie *et al.*, 1986; Muehling, 1987). Attitude toward advertising has been found to be negative in general, across all traditional media channels (Mittal, 1994; Muehling, 1987), including digital channels (Cho, 2004).



Traditional WOM communication is usually discussed in marketing literature as unmediated communication among consumers, or face-to-face communication (Herr *et al.*, 1991; Sweeney *et al.*, 2008). However, in today's virtual and social-networking era, eWOM communication alternatives have developed rapidly and dramatically. The internet and its evolving technological revolution have introduced new avenues for interactive communication – given the new ways people now connect with each other – and have changed the dynamics of WOM communication (Goyette *et al.*, 2010). New media communication channels include e-mail, online forums, blogs, wikis, recommendation sites, online comment boards, social networking sites, digital-virtual worlds, and more (Hennig-Thurau *et al.*, 2010; Brown *et al.*, 2007; Libai *et al.*, 2010). Despite the growing variety of media alternatives, little is known about the differences across these channels as eWOM facilitators (Berger and Iyengar, 2013). eWOM channels differ in their capabilities and characteristics, and people use them differently (Kaplan and Haenlein, 2010; Steffes and Burgee, 2009). Hence, it is likely that people's attitudes toward digital eWOM may also vary according to the delivering channel. Studying such potential variations can contribute to the literature. Furthermore, modeling attitude formation toward eWOM on digital channels is important and can contribute to our understanding of online users' behavioral response (Saadeghvaziri *et al.*, 2013). It therefore requires a theoretical framework that is currently missing in the literature. Accordingly, the objective of this study is twofold; first, to propose a model of eWOM communication attitudes, and second, to test whether people's attitudes toward digital eWOM vary across channels.

Literature review

WOM communication

WOM communication is a general concept of marketplace interpersonal interaction (Walsh and Mitchell, 2010), and is perceived as an important influence on consumers' buying decisions (Jansen *et al.*, 2009). Harrison-Walker (2001, p. 63) defined WOM as “informal, person to person communication between a perceived noncommercial communicator and a receiver regarding a brand, a product, an organization or a service.” WOM has been found to be more effective than advertising or direct personal sales (Engel *et al.*, 1969; Katz and Lazarsfeld, 1955; Traylor and Mathias, 1983; Trusov *et al.*, 2009), in particular, because it is perceived to be more credible and flexible (Steffes and Burgee, 2009).

In the digital environment, channels are based on a variety of technologies; they have different features, and different appeals that may influence consumer attitudes toward WOM communication. Some digital channels are more immediate and intimate (e.g. chat, text messaging), while others are widely used to share and distribute information among groups of users (e.g. social networks, online communities). Some channels allow users to recognize the source of the message, thereby more easily judging its credibility (Steffes and Burgee, 2009), while on other channels, message senders often remain anonymous (e.g. online comment boards). Although under conditions of source anonymity it is more difficult for users to evaluate credibility, channel users are still willing to accept beneficial digital marketing communication as they are motivated to maintain reciprocal relationships with the source (Schumann *et al.*, 2014).

This perspective suggests differentiation in message delivery across digital channels – differentiation that may lead to diversification in consumer attitudes toward WOM communication channels.

Attitude toward WOM communication

Attitude toward WOM communication is a significant antecedent of people's response to the message. An attitude is defined as "a psychological tendency that is expressed by evaluating a particular entity with some degree of favor or disfavor" (Eagly and Chaiken, 1993, p. 1), and has been found to influence behavioral intentions (Ajzen and Fishbein, 1980). This construct has been extensively researched and supported in traditional (Lutz, 1985; MacKenzie *et al.*, 1986; Mehta, 2000; Muehling, 1987; Shimp, 1981) and digital marketing communication (Saadeghvaziri *et al.*, 2013). Attitudes toward marketing messages have been studied as a response to their delivery media (Brackett and Carr, 2001; Castillo *et al.*, 2013; Saadeghvaziri *et al.*, 2013; Sandage and Leckenby, 1980). They have been found to vary across traditional channels (Alwitt and Prabhaker, 1992; Mittal, 1994), as well as interactive channels (Schlosser *et al.*, 1999; Shavitt *et al.*, 1998; Wolin *et al.*, 2002).

The formation of attitudes toward marketing communication is preceded by several variables. Ducoffe (1996) and Brackett and Carr (2001) present five perceptual antecedents of attitude toward traditional as well as digital advertising: informativeness, entertainment, irritation, value, and credibility. Informativeness refers to the extent to which the advertising message includes informational content (Aaker and Norris, 1982). This is the ability of WOM messages to inform consumers of product alternatives, so that they may make purchases yielding the greatest possible satisfaction (Ducoffe, 1996). Digital communication technology and the internet have facilitated the informativeness of marketing communication by enabling marketers to provide users with extensive information, tailored to their interests, and in a timely manner (Tucker, 2012). Digital message informativeness has been found to be positively related to perceived advertising value (Dao *et al.*, 2014; Kim and Han, 2014; Logan *et al.*, 2012) and attitude toward the ad (Coursaris *et al.*, 2012; Goodrich *et al.*, 2015). In the context of digital media, enhanced message informativeness may not be costless (Tucker, 2012), and may involve some consumer disutility due to concerns of privacy invasion and intrusiveness (Acquisti and Varian, 2005), which in turn may translate into a negative attitude toward the ad and advertising avoidance by consumers (Johnson, 2013; Schumann *et al.*, 2014). Yet this potential negative effect of informativeness on attitude materializes when informativeness involves targeted online advertising (Schumann *et al.*, 2014; Tucker, 2012).

The property of entertainment is the ability of a WOM message to fulfill the audience's needs for escapism, diversion, aesthetic enjoyment, or emotional release (Ducoffe, 1996; McQuail, 1987). Entertaining digital messages reduce users' perceived intrusiveness, and initiate a more positive attitude toward both the message and one's virtual community (Chang *et al.*, 2013). In their study on blogs, Keng and Ting (2009) found that entertainment positively relates to users' attitude toward receiving this content because it encourages interpersonal interaction and, consequently, experiential value.

Entertainment and informativeness are two distinct properties of eWOM that jointly characterize online consumer behavior; they are not the opposite extremes of the same continuum (Babin *et al.*, 1994; Cotte *et al.*, 2006). Research has shown that entertainment and informativeness of digital advertising may interact and positively relate to purchasing intentions regarding the advertised products (Scharl *et al.*, 2005). In fact, one study has integrated entertainment and informativeness into a single construct (i.e. "infotainment") as an antecedent of advertising value and attitude toward advertising (Liu *et al.*, 2012).

In the context of eWOM, entertainment plays an important role in determining consumer response to the digital message. Researchers have suggested that eWOM messages be entertaining and fun in order to increase individuals' tendency to share or forward them on to others (Kaplan and Haenlein, 2011; Woerdl *et al.*, 2008). In fact, entertaining and emotive content is a key ingredient of most viral eWOM messages (Golan and Zaidner, 2008; Lance and Golan, 2006). As two key aspects of digital communications, both entertainment and informativeness were found to positively correlate with the perceived value of the message (Dao *et al.*, 2014; Logan *et al.*, 2012) and consumer attitude toward it (e.g. Holzwarth *et al.*, 2006; Jingjun Xu, 2006; Hausman and Siekpe, 2009; Luo, 2002; Tsang *et al.*, 2004).

Irritation relates to annoyance, offence, insult, or the receivers' perception of over-manipulation caused by the message (Ducoffe, 1996). Advertising messages differ in the extent to which they irritate consumers. The level of irritation depends on a variety of factors, not fully controlled by the advertiser, such as the product category, target audience characteristics, copy execution factors (Aaker and Bruzzone, 1985; Pelsmacker and Van den Bergh, 1999), type of advertisement, and commercial density (Fennis and Bakker, 2001). Irritation leads to digital message avoidance, message skepticism (Baek and Morimoto, 2012), and reduced advertising value (Liu *et al.*, 2012).

Compared to advertising, WOM is perceived to be more relevant, is more likely to generate empathy, and can significantly reduce consumer resistance (Bickart and Schindler, 2001). However, the ease of eWOM creation by virtually anyone on the web may result in clutter and increased annoyance from the receivers' perspective (Hennig-Thurau *et al.*, 2004).

The value of a WOM message is the subjective evaluation of the relative worth or utility of the received communication to consumers (Ducoffe, 1995). This evaluation about utility can take various forms (e.g. emotional, economic) and be driven by several factors. Research suggests that message value is the outcome of informativeness, entertainment, irritation, and credibility (Dao *et al.*, 2014; Tsang *et al.*, 2004), and positively affects one's attitude toward the message (Brackett and Carr, 2001; Ducoffe and Curlo, 2000; Liu *et al.*, 2012). Digital advertising has been shown to be evaluated inconsistently across media channels (Ducoffe, 1996).

In the digital media environment, consumers play a dual, more complex, and more active role than in the traditional media environment regarding traditional communication. Digital communication channels have enabled consumers to be active in eWOM creation quite easily (e.g. by posting product reviews or reporting a service experience online) and, at the same time, receive this kind of information from peers. Under such conditions, the question of the predictors of eWOM value becomes more interesting.

Finally, WOM credibility is defined as the extent to which one perceives other consumers' recommendations or reviews as believable, true, or factual (Nabi and Hendriks, 2003). Credibility is a key determinant of eWOM adoption (Fan and Miao, 2012; McKnight and Kacmar, 2006), improves its responsiveness (Kozinets, 1999; Fox and Roberts, 1999), and its value (Liu *et al.*, 2012), and establishes attitude certainty (Clarkson *et al.*, 2008).

In his conceptual framework of attitude toward advertising on the web, Ducoffe (1995) presents four of the perceptual antecedents mentioned above (entertainment, informativeness, irritation, and value), where advertising value also serves as a mediating factor. Brackett and Carr (2001) add an additional important antecedent to

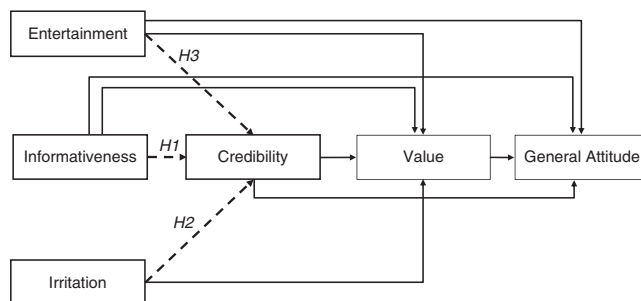
this model-credibility, because of its prevalence as a construct within other models (Eighmey, 1997; MacKenzie and Lutz, 1989; Shavitt *et al.*, 1998). From a theoretical perspective this amendment is interesting as it improves our understanding of the formation of attitude toward advertising. Consumers find advertising useful in guiding their decision making, although they do not generally trust it (Shavitt *et al.*, 1998). Consequently, perceived message credibility may direct consumers to the messages that they prefer to rely on.

Recently, research on digital advertising has provided mixed results and partial support for this conceptual framework. Most studies have supported the integrated framework in full (Dao *et al.*, 2014; Liu *et al.*, 2012). Yet for some specific digital channels, such as online streaming television, empirical findings suggest that adjustments are required (Logan, 2013). In the current study, we employ this integrated framework in the eWOM domain and suggest several adjustments for this domain (see Figure 1).

The fundamental adjustment in the proposed model is the mediating position of credibility. According to the original model, credibility is simply one of several other antecedents, with no outstanding role. The proposed model conceptualizes credibility as a principal factor that has a mediating and more central role, compared to the other antecedents. In other words, credibility serves as both a mediator and an antecedent of the general attitude toward eWOM. This conceptualization stems from the more unique impact that credibility has on consumer behavior in the case of eWOM, compared to traditional WOM (McKnight and Kacmar, 2006; Wathen and Burkell, 2002). This is due to the nature of eWOM, which is created by a large number of unknown participants and, in many cases, concerns products that cannot be observed first-hand (Fan and Miao, 2012).

eWOM credibility is positively affected by a variety of informational determinants (Cheung *et al.*, 2009). In addition, highly informative digital ads are perceived to be less intrusive and are thought to reduce user avoidance behavior (Edwards *et al.*, 2002). Such messages are perceived as extremely valuable (Aitken *et al.*, 2008) as they improve attitude toward the message (Liu *et al.*, 2012). In respect to its informativeness, eWOM differs inherently from advertising because eWOM messages are not controlled by the marketer. Rather, it is consumers who influence eWOM content and distribution. Furthermore, over time eWOM messages evolve as consumer experience accumulates and expert consumer reviews become increasingly available (Chen and Xie, 2008). Consequently, perceived credibility is likely to increase. Therefore, we hypothesize:

H1. eWOM informativeness has a positive effect on eWOM perceived credibility.



Notes: —→ Bracket and Carr's (2001) framework;
- - → model adjustments related to the eWOM domain

Figure 1.
Attitude toward
eWOM: an adjusted
conceptual
framework

Consumers are frequently irritated by traditional and digital marketing communications (Aaker and Bruzzone, 1985; Liu *et al.*, 2012; Marti-Parreño *et al.*, 2013). Irritation is a major determinant and generates a negative attitude toward the message (Luna Cortés and Royo Vela, 2013). Irritation caused by online advertising leads to consumer skepticism (Baek and Morimoto, 2012), defined as the consumer's tendency to disbelieve the informational claims (Obermiller and Spangenberg, 1998). Therefore, we hypothesize:

H2. eWOM irritation has a negative effect on eWOM perceived credibility.

Entertainment was found to positively affect credibility evaluation of digital communication (Johnson *et al.*, 2007; Kim, 2006). Greater entrainment may also enhance credibility indirectly because it improves the perception of trust between the communicating parties (Bart *et al.*, 2005; Kim and Stoel, 2004). In addition, the pleasure elicited by experiencing entertainment on websites results in greater trust between users and website operators (De Wulf *et al.*, 2006). This effect is derived from the user's expectation that the trustee will act in the interest of the trustor. Building on these findings, we expect a positive relationship between entertainment and eWOM credibility. Hereby, we present the following hypothesis:

H3. eWOM entertainment has a positive effect on eWOM perceived credibility.

In the current digital and social-networking environment, eWOM is created and distributed via a variety of channels and applications. Yet academic knowledge regarding the differences across eWOM channels is still quite limited (Berger and Iyengar, 2013). Individuals utilize these channels differently, as they take advantage of each channel's unique capabilities and characteristics (Kaplan and Haenlein, 2010; Levy and Gvili, 2015; Steffes and Burgee, 2009). Indeed, recent empirical findings suggest that the effects of advertising informativeness and entertainment on advertising's perceived value vary across digital channels (Dao *et al.*, 2014). Consequently, people's attitude toward eWOM may also vary according to the delivery channel.

Therefore, we formulate the following research question:

RQ1. Does attitude toward eWOM vary across digital media channels?

Methodology

Sample and procedure

Seven major digital communication channels were selected for this study: e-mail, forums, social network systems (SNS), virtual worlds, short message service (SMS), blogs, and online comment boards (see Table AI for channel definitions). As explained above, these channels have different features and capabilities (Kaplan and Haenlein, 2010; Steffes and Burgee, 2009). As such, they constitute a broad variety of the alternative digital channel types available in today's cyberspace. Data were collected through a web-based survey. Participants were randomly recruited from a leading operator of web community groups and mailing lists. Subjects from the original sample all demonstrated some activity in the digital communication environment (e.g. joined a mailing list during the last month, logged into a web forum at least once during the last month), and therefore had some experience with the channel under study. An equal number of invitations (750) were sent to different users in each of the seven channels listed above. Each participant was e-mailed a request to participate in the study, including a short introduction and an individual link to the questionnaire. Each link

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could only be used once. Participants then followed this unique web link to the survey hosting site, where they completed a questionnaire.

Overall, 864 usable responses were analyzed in this study, yielding a general response rate of 16.5 percent. Participants were distributed across the seven digital channels as follows: 124 participants responded in regard to e-mail, 99 to forums, 104 to SNS, 92 to virtual worlds, 111 to SMS, 171 to blogs, and 163 responded to online comment boards. Participants were equally split between males and females of different ages, with an average age of 37. The education level of the majority of the participants was above high school (66 percent), with an average or above-average income (56 percent) (see Table I for a sample profile).

Measurement

Our questionnaire applied reliable and validated scales based on previous studies. Attitude toward eWOM communication was measured by items adopted from Brackett and Carr (2001), including all five perceptual antecedents: entertainment, informativeness, irritation, value, and credibility. General attitude toward eWOM communication items were adopted from Pollay and Mittal (1993). Respondents were asked to indicate their level of agreement with different statements. A five-point Likert scale was used, ranging from 1 = strongly disagree, to 5 = strongly agree. We adjusted the items to eWOM communication and the channel types under study. Scale items are presented in Table II.

The correlation pattern between the suggested antecedents of attitude toward eWOM for the overall sample is provided in Table III. Demographic data were also collected.

Results

First, all variable items were subjected to confirmatory factor analysis (CFA) for construct validity and reliability. The results confirm the constructs (χ^2 value (119) = 225.79, $p > 0.05$ (χ^2/df , less than 2); comparative fit index (CFI) = 0.989; normed fit index (NFI) = 0.976; and root mean square error of approximation (RMSEA) = 0.032).

Variable	Value	%
Gender	Male	50
	Female	50
Age	< 25 years	12
	25-34 years	36
	35-44 years	24
	45-54 years	23
	> 55 years	5
Education	High school or less	34
	Some collage	19
	College degree	25
	Masters degree	22
Income	Below average	16
	Slightly below average	27
	Average	23
	Slightly above average	22
	Above average	12

Table I.
Sample profile

Variables and items	Factor loading	Std. coef.	AVE	CR	Cronbach's α
<i>Entertainment</i>					
Entertaining	0.82	0.82*	0.68	0.87	0.87
Enjoyable	0.85	0.81*			
Pleasant	0.84	0.85*			
<i>Informativeness</i>					
A good source of product information	0.74	0.86*	0.66	0.85	0.85
Supplies relevant product information	0.76	0.81*			
Provides timely information	0.79	0.77*			
<i>Irritation</i>					
Insults people's intelligence	0.78	0.84*	0.65	0.85	0.85
Annoying	0.80	0.74*			
Irritating	0.80	0.83*			
<i>Value</i>					
Useful	0.85	0.88*	0.75	0.90	0.90
Valuable	0.84	0.85*			
Important	0.85	0.86*			
<i>Credibility</i>					
Credible	0.83	0.80*	0.65	0.85	0.84
Trustworthy	0.82	0.84*			
Believable	0.83	0.78*			
<i>General attitude</i>					
In general, WOM messages on ___ ^a are a good thing	0.87	0.86*	0.73	0.89	0.89
In general, I like receiving WOM messages on ___	0.87	0.83*			
In general, WOM messages on ___ are a positive thing	0.84	0.87*			

Table II.
Factor analysis: item factor loading and variable reliability

Notes: ^aChannel. Standardized coefficients, * $p < 0.01$

Variable	Mean	SD	Attitude antecedents				
			Entertainment	Informativeness	Irritation	Value	Credibility
General attitude	2.51	1.21	0.284**	0.303**	-0.178**	0.486**	0.488**
Entertainment	2.61	1.12	1.00	0.570**	-0.408**	0.280**	0.437**
Informativeness	3.02	1.20	-	1.00	-0.590**	0.336**	0.369**
Irritation	2.99	1.08	-	-	1.00	-0.388**	-0.319**
Value	3.25	1.25	-	-	-	1.00	0.592**
Credibility	3.07	1.20	-	-	-	-	1.00

Table III.
Descriptive statistics and correlations between antecedents of attitudes toward eWOM communication: overall sample

Notes: $n = 864$. ** $p < 0.01$

The CFA shows that scale items loaded satisfactorily on the relevant latent variables. Convergent validity, discriminant validity, and internal consistency were examined using the following measurements: average variance extracted, composite reliability, and Cronbach's α , displaying acceptable validity and reliability of the measurements (see Table II for construct measurements). Means were then calculated and examined for each factor.

Next, to answer the *RQ1* we examined the means of attitude antecedents in different channels. Descriptive statistics and measurements by channel are presented in Table IV. ANOVAs were conducted to test for differences in attitude antecedents across channels.

Table IV.
Attitudes toward
eWOM
communication:
descriptive statistics
by channel

Channel	n	General attitude ^a		Entertainment ^b		Attitude antecedent				Value ^e		Credibility ^f	
		Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD
E-mail	124	2.11*	1.16	2.07*	0.63	2.29*	0.82	3.40**	0.81	2.92	0.79	2.66*	0.87
Forum	99	3.17	1.07	1.39*	0.48	3.31**	0.70	2.32*	0.53	4.05**	0.98	3.20**	0.96
SNS	104	3.56**	1.09	3.18**	0.77	3.38**	0.90	3.41**	0.75	4.09**	0.92	4.09**	0.65
VW	92	2.10*	1.11	1.98*	0.61	1.84*	0.70	3.38**	0.71	3.54**	1.04	3.38**	0.76
SMS	111	1.57*	0.85	3.50**	0.71	4.22**	0.73	1.73*	0.54	2.47*	0.96	2.33*	0.79
Blog	171	3.48**	0.63	3.97**	0.50	4.16**	0.53	2.19*	0.55	4.31**	0.48	4.34**	0.57
Online comments	163	1.61*	0.41	1.74*	0.46	1.82*	0.57	4.30**	0.49	1.72*	0.49	1.64*	0.44

Notes: ANOVA tests: ^a $F=121.71$, $p < 0.01$; ^b $F=374.26$, $p < 0.01$; ^c $F=284.85$, $p < 0.01$; ^d $F=282.73$, $p < 0.01$; ^e $F=212.68$, $p < 0.01$; ^f $F=265.33$, $p < 0.01$. *Significantly below the midpoint of the scale; **Significantly above the midpoint of the scale (one sample t -test was used)

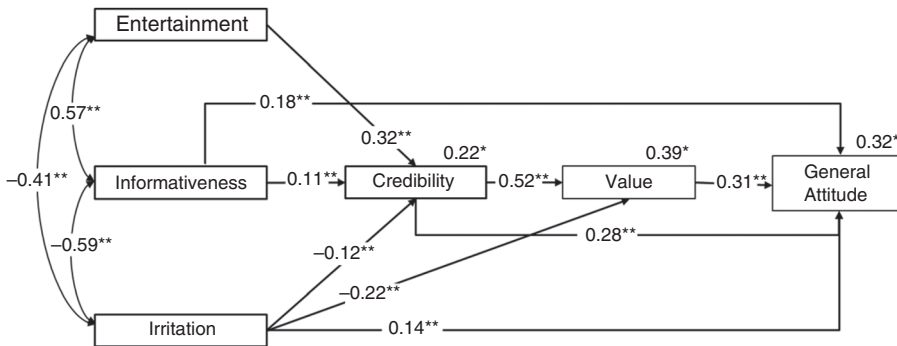
One sample t -test was applied (3 – midpoint of the scale) to identify attitude level toward the channel (i.e. high/low). The results show significant differences in general attitude toward eWOM communication across the seven digital channels. Furthermore, differences were also found in the five perceptual antecedents.

Forum, e-mail, VW, and online comment boards score significantly low on entertainment, while SNS, SMS, and blogs score high. E-mail, VW, and online comment boards also score low on informativeness, in contrast with forums, SNS, SMS, and blogs, all of which score high. E-mail, SNS, VW, and online comment boards were found to be highly irritating; alternatively, forums, SMS, and blogs score low on irritation. Forum, SNS, VW, and blogs are considered highly credible, while e-mail, SMS and online comment boards show low credibility. A significant low value was found in SMS and online comment boards, while forums, SNS, VW, and blogs exhibit a high value. In addition, regression analysis shows a significant effect of channel type on the different attitudinal constructs: general attitude ($F_{6,863} = 121.71$, $p < 0.01$; $R^2 = 0.46$), value ($F_{6,863} = 212.68$, $p < 0.01$; $R^2 = 0.60$), credibility ($F_{6,863} = 268.33$, $p < 0.01$; $R^2 = 0.65$), informativeness ($F_{6,863} = 284.85$, $p < 0.01$; $R^2 = 0.67$), entertainment ($F_{6,863} = 374.26$, $p < 0.01$; $R^2 = 0.72$), and irritation ($F_{6,863} = 282.73$, $p < 0.01$; $R^2 = 0.66$).

Finally, to examine the relationships among the perceptual antecedents of attitude toward eWOM and to test the proposed framework, a path analysis was conducted using structural equation modeling. The overall fit statistics (goodness of fit measures) exhibit an acceptable level of fit (χ^2 value (3) = 6.54, $p > 0.05$; CFI = 0.998; NFI = 0.996; RMSEA = 0.037), indicating that the path model is valid. The path model, regression standardized coefficients, and their significance are illustrated in Figure 2.

The model depicts the direct and indirect paths of attitude antecedents toward the dependent variables. As seen in Figure 2, credibility has a direct and positive effect on value ($\beta = 0.52$), while informativeness has an indirect weak effect on value ($\beta = 0.06$), mediated by credibility. Informativeness has a direct effect on credibility ($\beta = 0.11$). Therefore, $H1$ is supported.

Irritation has a total negative effect on value ($\beta = -0.28$), composed of direct ($\beta = -0.22$), and indirect ($\beta = -0.06$) effects. Irritation also has a direct negative effect on credibility ($\beta = -0.12$), indicating partial mediation by credibility. Hence, $H2$ is supported. Finally, entertainment has a direct positive effect on credibility ($\beta = 0.32$) and an indirect effect on value ($\beta = 0.17$), fully mediated by credibility. Therefore, $H3$ is supported. Additionally, the model shows that entertainment is positively related to



Notes: Path parameters are standardized parameter estimates and only significant paths are shown. Curved arrows indicate correlations; R^2 are in the left corner. * $p < 0.05$; ** $p < 0.01$

Figure 2.
Antecedents of
attitude toward
eWOM
communication: a
path model

informativeness ($r = 0.57$) and negatively related to irritation ($r = -0.41$). Informativeness is also found to be negatively related to irritation (-0.59).

Considering the general attitude toward eWOM communication, value has a direct positive effect ($\beta = 0.31$). Other antecedents have direct or indirect effects. Credibility has a total positive effect of $\beta = 0.45$ (direct $\beta = 0.28$ and indirect $\beta = 0.17$). Entertainment has a total positive indirect effect of $\beta = 0.14$. Informativeness has a total positive effect of $\beta = 0.23$ (direct $\beta = 0.18$ and indirect $\beta = 0.05$). In contrast with the negative correlation between irritation and general attitude ($r = -0.18$), path analysis shows no significant general effect. Yet, when split into direct and indirect effects, surprising results arise. Path analysis suggests a negative indirect effect ($\beta = -0.12$) of irritation on general attitude, while the direct effect is positive ($\beta = 0.14$). Table V summarizes the relationships among attitude perceptual antecedents.

Additionally, the antecedents of the proposed model were analyzed separately for each medium to test for a potential moderating effect of the medium. A regression analysis was conducted to test the relationships between the antecedents and attitude toward eWOM. The results show no significant effect of the antecedents on the general attitude toward eWOM (see Table VI). Therefore, the model applies to the differences across channels, but not necessarily within each individual channel.

Relationships	Standardized effect			Regression weights (direct)		
	Total	Direct	Indirect	Estimate	CR	p
Entertainment → credibility	0.322	0.322	0.000	0.345	8.76	< 0.001
Entertainment → value	0.168	0.000	0.168			
Entertainment → general attitude	0.144	0.000	0.144			
Informativeness → credibility	0.114	0.114	0.000	0.114	2.75	< 0.01
Informativeness → value	0.060	0.000	0.060			
Informativeness → general attitude	0.226	0.175	0.051	0.176	4.88	< 0.001
Irritation → credibility	-0.121	-0.121	0.000	-0.134	-3.22	< 0.001
Irritation → value	-0.284	-0.221	-0.063	-0.256	-7.91	< 0.001
Irritation → general attitude	0.014	0.137	-0.123	0.155	3.81	< 0.001
Credibility → value	0.521	0.521	0.000	0.542	18.65	< 0.001
Credibility → general attitude	0.445	0.281	0.164	0.285	7.84	< 0.001
Value → general attitude	0.314	0.314	0.000	0.307	8.70	< 0.001

Table V.
Relationships of
attitude antecedents:
direct and indirect

Discussion

The objectives of the current study were to propose a model of attitude toward eWOM communication, and to test whether people's attitude toward digital eWOM varies across channels. The results show that attitude toward eWOM communication significantly differs across various digital media channels. Channels such as SMS, online comment boards, and e-mail suffer from low general consumer attitude, whereas other channels such as SNS and blogs gain high general attitudes. These differences originate from a significant variation in the five antecedents of consumer attitude, as demonstrated in the following discussion of three major channels.

Online comment boards is a type of channel that allows content readers across the globe to instantly and anonymously express their opinions about articles, journalists, sources, headlines, photographs, and other user comments (Nielsen, 2012). Messages are typically textual, and contain no images or videos. Therefore, they are perceived to be unentertaining. Communication is comment based, spontaneous, and brief, which may explain the low informativeness of this channel. Yet their brief nature reduces channel irritation as they are not tedious. The ability of content contributors to stay covert, combined with message superficiality, may hurt channel credibility (Keller, 2007; Castillo *et al.*, 2013). Credibility may be further damaged if the message is suspected to be "too positive" and manipulated by disguised parties (Chih *et al.*, 2013; Doh and Hwang, 2009). Consequently, the results suggest low overall channel value.

SNS platforms usually allow users to share a variety of information types such as text, images, and videos. This leads to enhanced media richness (Kaplan and Haenlein, 2010) which, in turn, increases users' perception of SNS as highly entertaining. Perceptual entertainment is also increased by the positive social experience of SNS (Schulze *et al.*, 2014). Information volume is virtually unlimited – a channel property that improves its perceptual informativeness but, at the same time, may result in information overload, which can irritate SNS users. The trustworthy relationships developed on SNS (Mangold and Faulds, 2009), coupled with high information richness, increases message credibility (Levy and Gvili, 2015). Indeed, SNS is perceived as a high-value channel.

Web forums usually focus on a particular domain or topic of interest (Shih *et al.*, 2013), and are visited by goal-oriented users who seek advice in these domains and informational resources from other participants. Therefore, they are perceived as highly informative and less irritating. Because the typical purpose of browsing web forums is more functional (i.e. problem solving) than hedonic or social (Chih *et al.*, 2013), web forums are perceived as low-entertaining channels. Forum content contributors are mostly knowledgeable or professionals in the relevant field, which enhances this

Variable (coefficient ^a)	E-mail	Forum	SNS	VW	SMS	Blog	Online comment board
Value	-0.032 (-0.347)	0.003 (0.026)	-0.048 (-0.445)	0.063 (0.596)	0.029 (0.290)	-0.028 (-0.363)	-0.098 (-1.233)
Credibility	-0.083 (-0.918)	0.038 (0.375)	-0.038 (-0.377)	0.040 (0.370)	-0.023 (-0.288)	-0.119 (-1.538)	-0.068 (-0.832)
Entertainment	0.154 (1.690)	0.046 (0.448)	0.047 (0.440)	-0.213 (-1.922)	0.378 (3.909**)	0.103 (1.315)	-0.028 (-0.354)
Informativeness	0.097 (1.070)	-0.145 (-1.415)	0.107 (1.066)	-0.174 (-1.656)	0.008 (0.086)	0.105 (1.362)	-0.066 (-0.822)
Irritation	0.077 (0.838)	-0.207 (-1.887)	0.070 (0.675)	0.120 (1.112)	0.046 (0.474)	0.129 (1.682)	-0.003 (-0.042)
R ²	0.052	0.058	0.027	0.081	0.155	0.047	0.022
F	1.285	1.143	0.549	1.526	3.857**	1.632	0.697
df	5/123	5/98	5/103	5/91	5/110	5/170	5/162

Notes: ^at-test values are presented in parentheses; ^bFigures denote standardized values. * $p < 0.05$; ** $p < 0.01$

Table VI.
Regression analysis
results by medium

channel's credibility. Based on the above, forum users gain significant utility from this channel, and therefore perceive it to be highly valuable.

The differences across channels in respect to their general attitudes and antecedents may relate to the nature of the communication and the type of messages they usually support. Online comment boards and SMS are frequently used to communicate short textual and instantaneous messages. Hence, people may spend less time constructing and refining communication (Berger and Iyengar, 2013). Consequently, people tend to discuss top of mind topics and ideas, which are not necessarily valuable, or profound (Berger and Schwartz, 2011). This may also explain why these channels are perceived as less valuable and general attitude is low. On the other hand, blogs usually deliver more extensive information including images, videos, and hyperlinks to other websites. Therefore, people spend more time constructing and refining their messages. The result may involve communicating and discussing more interesting and valuable subjects, which enhance the general attitude toward this channel.

Building on Ducoffe's (1996) and Brackett and Carr's (2001) frameworks, a theoretical model has been proposed and tested empirically. In general, the integrated advertising model, proposed by Ducoffe (1996) and Brackett and Carr (2001), applies to eWOM communications. The model presented in the current study portrays additional relationships among the antecedents of user attitude toward eWOM. Specifically, several significant relationships were found among the three attitude antecedents of informativeness, entertainment, and irritation. First, a more entertaining digital channel seems to be more informative and vice versa. This result is in line with previous research findings regarding the positive relationship between these two constructs (Liu *et al.*, 2012; Scharl *et al.*, 2005). Second, a more informative digital channel is likely to be more irritating. Informativeness helps eWOM messages to inform consumers of new choice alternatives, which may result in enhanced satisfaction. Consequently, eWOM receivers are more likely to tolerate messages and perceive them as being less irritating the more informativeness grows. Nonetheless, if enhanced informativeness is associated with targeted online advertising, this relationship may not hold because users may feel over-manipulated by the message (Schumann *et al.*, 2014; Tucker, 2012). Third, irritation is also mitigated by entertainment. Entertaining digital messages generate a more positive attitude toward the message, due to their reduced perceived user intrusiveness (Chang *et al.*, 2013). This decreased sense of intrusiveness is likely to reduce annoyance and irritation.

In accordance with Brackett and Carr's (2001) framework, credibility has a direct effect on value and attitude toward eWOM. Yet the current model highlights the central and key position of channel credibility in attitude formation as reported previously (Clarkson *et al.*, 2008; Levy and Gvili, 2015; McKnight and Kacmar, 2006). Credibility functions as a mediating factor between entertainment, informativeness, and value. In other words, a channel's informativeness and entertainment may increase eWOM value only if they are perceived to be credible. Similar to the traditional model, informativeness has a direct effect on attitude toward eWOM. However, in contrast with the traditional model the effect of informativeness on value is solely indirect. Furthermore, entertainment has no direct effect either on value or on attitude toward eWOM, that is, the effects of entertainment on value and attitude are fully mediated by credibility.

Finally, similarly to the original framework, irritation is directly and negatively related to value. However, in contrast with the original framework, irritation was found to be positively related to attitude toward eWOM. This means that irritating eWOM

messages can positively affect the general attitude toward a channel's eWOM messages. A possible explanation for this surprising result is that growing irritation may be due to users' exposure to an overload of annoying and objectionable views. As such, it reflects the openness of a channel to diverse, sometimes conflicting opinions, and highlights people's ability to express themselves freely via this channel, and thus, people's increased positive attitude. An alternative explanation for this result may be that irritating messages create arousal; this, in turn, increases consumer engagement with the message, which may improve their general attitude.

Overall, the role of eWOM credibility is more central as an antecedent of eWOM value, compared to the role of advertising credibility proposed by Brackett and Carr's (2001) original model. Credibility has both a direct and indirect effect on attitude toward eWOM (Hsu *et al.*, 2013).

Theoretical and managerial implications

This study has several important theoretical and managerial implications. From a theoretical perspective, the study supports the notion that digital media channels significantly vary in regard to people's attitude toward eWOM communication. Attitude heterogeneity across channels is well reflected in people's overall attitude, as well as in the five attitudinal antecedents. Conceptually, each digital channel should be treated separately, rather than uniformly. It seems that attitude heterogeneity is derived from the different channel properties and their diverse capacities to deliver eWOM messages.

Second, the study suggests a comprehensive framework for people's attitudes toward eWOM communication. Generally, it provides theoretical and empirical support for the conceptual frameworks proposed by Ducoffe (1996), and Brackett and Carr (2001) in the domain of advertising. However, it also indicates several required adjustments relating to eWOM communications. The current model exhibits the uniqueness of eWOM digital channels and how these affect the formation of attitudes toward eWOM. Unlike Brackett and Carr's (2001) advertising model, in the proposed eWOM model credibility plays a key role in forming the general attitude, since it serves as an important mediator between other antecedents and eWOM value. Ducoffe (1996) asserts that effective communications are those that consumers value. The current study denotes that consumers highly value messages that are credible. The absence of a direct relationship between entertainment and attitude implies that entertaining messages are required to be credible in order to be effective. Informative messages, on the other hand, can affect general attitudes directly and significantly, regardless of their credibility, or value. The mere property of informativeness can affect the general attitude toward eWOM communication. Furthermore, in addition to the indirect negative relationship irritation has with general attitude in the domain of advertising, in eWOM communication there is also a direct positive relationship with general attitude. Though irritation harms a channel's credibility and value, it also positively contributes to the general attitude perception of that channel.

In addition, the current research demonstrates that enhanced informativeness positively relates to increased credibility. This positive relationship prevails despite the potential disutility that informativeness may impose on consumers due to privacy invasion and intrusiveness caused by targeted marketing communication (Tucker, 2012). Accordingly, our findings contribute to the ongoing debate regarding whether informativeness enhances or hurts credibility of marketing communications (e.g. Tucker, 2012; Schumann *et al.*, 2014). Though some allude to

consumers' perceived risk of being tracked too closely and being manipulated by marketers (Acquisti and Varian, 2005), our findings support a positive relationship between informativeness and credibility. It appears that consumers feel confident that they can detect such manipulation, avoid it, or evaluate its costs to be less than its benefits.

Finally, the results of the current research contribute to our understanding of the process through which an eWOM channel's credibility develops. Credibility is a judgment made by the users of a media channel, not a characteristic inherent in a source (Berlo *et al.*, 1969; Flanagin and Metzger, 2003, 2007; Schweiger, 2000; Sillence and Briggs, 2007). Hence, users' judgment should be based on some preliminary information or perceptions regarding the channel. The model presented in this paper is in line with this view, as it depicts consumers' perceived credibility as the outcome of their evaluation of the channels' informativeness, entertainment, and level of irritation. This understanding is especially important in the context of eWOM due to the pivotal role of credibility in its adoption (Fan and Miao, 2012; McKnight and Kacmar, 2006).

From a managerial perspective, this study has some important recommendations for practitioners. First, practitioners should adjust their eWOM media strategy to their communication objectives. Attitude toward eWOM messages is contingent upon the carrying media channel. Therefore, effective communication depends on the selected media. Consequently, marketers who seek to improve people's attitude toward their brand should focus on message delivery via blogs and social networks. In other cases, where marketers need to deliver a highly consumer-relevant message in a timely manner, they should use SMS. When message credibility is critical, forums may be a better option.

Second, when designing eWOM communications, practitioners must make sure they meet some credibility standards. This requirement is crucial, especially in the case of entertaining eWOM communication. Marketers who seek to apply entertainment appeal in a campaign should make sure the message is delivered via trustworthy vehicles in order to be effective. Otherwise, perceived value enhancement and positive attitude formation is not likely to take place. Highly informative eWOM communication does not share this requirement, since the perceived informativeness of the vehicle directly affects general attitude. Hence, it may be more effective for practitioners to use highly informative channels or create such an impression.

Finally, digital channel managers should employ better control systems and editing procedures over the delivered content. Care should be taken to ensure that the information delivered by the channel is reasonably credible and valuable. The current study shows that truthful eWOM content is a requirement for entertaining messages, in order to be perceived as valuable. Such a consistent content control policy may contribute to a channel's perceived credibility in the long run.

The current study has a noteworthy limitation. The intensity of eWOM usage and user expectations for eWOM occurrence may vary across digital channels. Some channels, such as blogs and SNS deliver eWOM more frequently and on a more regular basis than others (Lee and Youn, 2009; O'Donohoe, 2008). The gap between user expectations and eWOM delivery in practice may affect users' tolerance to such messages and, consequently, their attitude. Therefore, one could expect some attitude variation across channels. Nevertheless, this analysis is beyond the scope of the current paper. Future research should test whether user expectations vary across channels, and whether these expectations are related to their attitude toward eWOM.

In conclusion, the current study contributes to our understanding of the antecedents of attitude toward eWOM across various digital channels. Nevertheless, future research is required as new types of social networks and digital applications are frequently introduced, integrating different capabilities of the “classic” digital platforms, and forming new breeds (types? forms?) of eWOM channels.

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Appendix
**Antecedents
of attitudes**

Channel	Definition	Source	Example
SNS	A social network system (SNS) is a web-based communication service that allows individuals to construct a public or semi-public profile within a bounded system, articulate a list of other users with whom they share a connection, and view and traverse their list of connections and those made by others within the system	Boyd and Ellison (2008)	Facebook, LinkedIn, Pinterest
SMS	A short message service (SMS) is a store-and-forward communication system for mobile phones. Recent variants, such as multimedia message service, have added multimedia capabilities	Bamba and Barnes (2007)	
Blog	A web log that publishes its owner's thoughts and opinions, with links and images, in a journal-like manner, in reverse chronological order	Sepp <i>et al.</i> (2011)	The White House Blog (whitehouse.gov/blog)
Forum	A special type of virtual community from which participants can receive advice and informational resources from other participants, usually within a particular domain or topic	Shih <i>et al.</i> (2013)	sportscarforums.com
VW	Virtual worlds are computer-generated environments that are three-dimensional and are rendered similar to the real world	Barnes and Pressey (2011)	SecondLife
E-mail	An electronic communication system that uses computer text processing and communication tools to provide a high-speed information exchange service (Sprouli and Kiesler, 1986)	Sproull and Kiesler (1986)	
Online comment board	A digital system that allows content readers across the globe to instantly and anonymously express their opinions about articles, journalists, sources, headlines, photographs, and other commenters	Nielsen (2012)	Online comment boards of <i>The New York Times</i> or <i>The Guardian</i>

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Table A1.
Channel type definitions

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