

WHAT WE KNOW AND DON'T KNOW ABOUT ONLINE WORD-OF-MOUTH: A SYSTEMATIC REVIEW AND SYNTHESIS OF THE LITERATURE

Abstract

Online word-of-mouth (eWOM) has attracted considerable research in the past decade. Yet, no attempt has been made to consolidate and synthesize this stream of literature. Based on a systematic review of 148 studies, the authors conduct a multi-dimensional analysis of eWOM communication, consumption and effects. Results show that the factors that drive consumers to generate/transmit eWOM include need for self-enhancement, social interaction and altruism. These factors also assure the generation of quality information that benefits consumers who seek eWOM. The findings indicate that the effects of eWOM on consumer and market-level outcomes are not linear and vary significantly owing to eWOM dimensions such as valence and volume, and across products and consumers. With social media and other eWOM platforms taking central stage in marketing and promotional strategies, it is important to consider the key effects of eWOM on metrics such as consumer loyalty, life-time value and service delivery costs.

Key Words: online word-of-mouth; systematic review; social media; c2c interactions; social influences

Introduction

Word-of-Mouth¹ (WOM) is gaining a new significance due to the Internet and modern social media. One of the most important features of the Internet is its support for bidirectional communication (Dellarocas 2003). It not only enables organizations to reach consumers in a large scale, and at low cost, but, at the same time, allows consumers to communicate their product/service experiences to organizations as well as the wider community of users. As consumers shift from a traditional passive role to a more active role, eWOM and consumer-

¹ Henceforth, we refer to traditional word-of-mouth as WOM and electronic/online word-of-mouth as eWOM.

consumer (c2c) communities become central to the development of marketing strategies (Prahalad and Ramaswamy 2004). Online word-of-mouth (eWOM) has transformed the way we search for information, the way we interact with each other, and more importantly, the way we shop.

eWOM is defined as “*any positive or negative statement made by potential, actual, or former customers about a product or company, which is made available to a multitude of people and institutions via the Internet*” (Hennig-Thurau et al. 2004, p.39). eWOM communications can take place in many ways (e.g., discussion forums, UseNet groups, product reviews, blogs, and social networking sites (SNS)). Numerous studies have shown that eWOM significantly impacts consumers’ decision making, their satisfaction with goods and services, and the overall value of economic transactions (Balasubramanian and Mahajan 2001; Chevalier and Mayzlin 2006; Pavlou and Dimoka 2006; Trusov et al. 2009).

The need for a systematic review

While eWOM is used as a catchall term to explain mysterious marketplace forces, there is little understanding or consensus about what it is, and how, when, and why it works. Scholars have also noted the paucity of common theoretical bases to understand WOM (Bayus, Carroll, and Rao 1986; Goldenberg et al. 2001) and more specifically, eWOM (Kozinets et al. 2010). The broad range of platforms and various types of eWOM, coupled with myriad methods used to study them has led to a fragmentation in extant literature. This fragmentation poses a risk to the accumulation of knowledge and the integration of findings. With this article, we intend to alleviate the issues outlined above and create a floor for other research to build upon in the future. To the best of our knowledge, there has been no attempt to consolidate the vast literature on eWOM. Previous attempts examine only specific eWOM instances and focus on a small

sample of studies (e.g., Dellarocas 2003—EBay reputation systems). Of course, the literature then wasn't as vast and mature as it is now- all the more the need for a systematic review.

Systematic reviews “*summarize in an explicit way what is known and not known about a specific practice-related question*” (Briner et al. 2009, p.19), and help in bridging the ‘research-practice gap’ (Rousseau 2006). A better understanding of how eWOM is generated/transmitted and consumed and how it affects both consumers and businesses is necessary given the sheer explosion of eWOM activity and supporting platforms. It can aid managers to focus their resources and realize the power of eWOM in both online and offline market places. The primary objectives of this study are: 1) compile a comprehensive database of contemporary research articles related to eWOM, 2) conduct a systematic review of these studies and identify the various antecedents and consequences of eWOM, and 3) integrate the findings into a cohesive framework that captures the multi-dimensional nature of eWOM, and 4) identify gaps in literature as well as promising avenues for future research that can benefit both research and practice.

This paper is structured as follows: First, we describe the methodology and the organizing framework. We then present descriptive features of the data and identify and discuss numerous antecedents and consequences of eWOM. Finally, we discuss what we know and what we don't know about this topic and identify promising avenues for future research.

Methodology

We follow the systematic review method proposed by Webster and Watson (2002). In order to build the initial pool of studies, we employ searches in databases such as Academic Search Premier, ABI/INFORM Global, Social Science Citation Index, Science Citation Index

and Emerald Insights. We use an expansive list of search terms including “*eWOM*”, “*online reviews*”, “*product reviews*”, “*online recommendations*”, “*online word-of-mouth*”, “*online buzz*”, “*social networks*” “*online viral marketing*”, and “*online consumer reviews*”, “*online communities*”², and “*virtual communities*”. We also cover unpublished dissertations and sought completed works from scholars by posting on various online academic communities² (e.g., ELMAR for marketing scholars). After initial search and filtering, we built a database of 241 peer-reviewed articles. To broaden the search, we noted works of potential interest cited in the articles we reviewed. This added an additional 26 articles which were used for preliminary analysis. After several rounds of content review, we arrived at a final list of 148 articles for the analysis. We use several filtering criteria to arrive at the final list of studies: a) The paper is published in a peer-reviewed journal (unpublished manuscripts should have been written by academics) b) The focus of the paper is on various forms of eWOM or at least a subset of variables in the study concern eWOM, c) The study has a defined sample and an empirical methodology; cannot be purely conceptual/theoretical in nature, and d) the publication should address consumers’ perceptions of eWOM or effects of eWOM on either individual consumers at a micro-level or the markets at a macro-level.

The review in this study is concept-driven (Webster and Watson 2002). It looks at the literature from the concepts presented by all authors rather than the author-driven approach that looks at how the individual author(s) have analyzed multiple concepts in several articles. The concept-driven method has two benefits: a) since eWOM is a relatively new topic, it lacks the deep history that allows a small number of authors to have heavy research streams on a topic.

² While the ‘file drawer’ problem does not apply to systematic reviews, we nevertheless include unpublished works to cast an expansive net. Further, the very fact that scholars have opened their work for public consumption and scrutiny lends credence to the findings.

The concept-driven approach allows us to include all relevant research even if an author(s) has produced only one article and b) it enables us to create a concept matrix that focuses on key areas investigated by extant research and topics that are ripe for development.

To organize the key findings and concepts, we adopt Nyilasy's (2005) framework that organizes key issues surrounding WOM communication episodes. The framework is based on the fundamental assumption that every WOM episode has two parties - the receiver and the communicator. Further, WOM episodes have several antecedents and consequences for both the senders and receivers. It is valuable to distinguish the two areas since the communication channels between sender and receiver can often be flawed or have issues with the exchange (Lin, Geng and Whinston 2005). Without looking at the two sides of the communication, there will most definitely be gaps in the understanding of how eWOM is perceived and decoded. The framework has two dimensions: 'Units of analysis' (sender and receiver of WOM) and 'Focus of the Study' (antecedents and consequences/effects). This gives rise to four main quadrants in the framework (See Table 1):

****** Table 1: Multiple Dimensions of WOM Communication Episodes (Adapted from Nyilasy 2005)******

In order to create this matrix, we first code the literature. The main focus of our coding was in the details of the eWOM activity and the antecedents, moderators and outcomes tested in the studies. As we reviewed the studies, we categorized the studies into one of the quadrants. Other coded material include study methods (qualitative, quantitative (experiment/survey) and quantitative (archival/panel data) and specific details), details of the sample (the context- student sample, actual consumers, archival data from websites such as Amazon.com and EBay.com). We also categorize the antecedents, consequences and moderators of eWOM, based on four general constituent factors: product-, self- and social-factors, and others (accounting for everything else)

(Dichter 1966; Sundaram, Mitra, and Webster 1998). Following the analysis, we present and summarize the substantive findings via the following framework (see Figure 1). *(Please note that while we conduct a systematic review, we do not present the detailed analysis due to space limitations. The comprehensive bibliography and complete list of constructs identified are available from the authors.)*

****** Figure 1: Principle Areas of Research in eWOM******

Results

We first present the descriptive statistics of the data and then explore in detail the key constructs in each quadrant.

****** Figure 2: Key Descriptive Features of the Dataset******

- ✓ The distribution of articles published by year, from 2001 to 2011, is shown in Figure 2A. Research in eWOM increased significantly since 2001. The number of published articles doubled each year (over 80% from 2006 to 2011 and about 40% from 2009 to 2011).
- ✓ The key levels of analysis are of two types: 64% of the studies focused on the consumer (e.g., Park and Lee (2009)) whereas 35% conducted market-level analysis (e.g., Chevalier and Mayzlin (2006)).
- ✓ The studies apply a wide range of methodologies that can be broadly categorized as follows (see Fig 2B): quantitative methods such as experiments (n=41), archival data (objective data from popular sites including Amazon or eBay) (n=48) and surveys (n=41), and qualitative methods including focus groups, interviews and critical incident

techniques (n=16). For studies that use a combination of the techniques, we apply the major technique/data that the study used to draw key inferences³.

- ✓ We also classify the articles based on the key subject area of the journal (see Fig 2C). We use a combination of the journals' aims and scopes along with the title to determine the subject area. As can be seen, majority of the articles are published in marketing journals closely followed by MIS/Information management (Marketing category includes advertising related journals such as J. of Advertising & J. of Retailing; 'Other' category includes fields such as Economics and Tourism & Hospitality; Management category includes business and management journals such as J. of Business Research and Management Science.)

Antecedents to eWOM Communication (Why Do People Talk?)

The decision to communicate WOM (both generation as well as transmission) in offline environments has been extensively investigated (Mooradian and Oliver 1997). What makes eWOM unique is that it affords researchers the ability to observe the behavior through archival data that is readily available online. We identify five key determinants of eWOM communications and several moderating factors. In Table 2, we present the key research areas in eWOM communication and a few representative articles categorized by the primary methodological approaches.

****Table 2: Topics and Methodologies: Representative Articles - Generation, Transmission and Effects ****

³ For instance, Pavlou and Dimoka (2006) first use an experiment to ascertain and pre-test key hypotheses that are then validated using archival data from EBay.com. In such cases, we categorize the method as 'Quantitative Archival'

Self-enhancement

An important antecedent commonly identified in many studies is the need for self-enhancement, one of the most dominant human motivations (Fiske 2001). Self-enhancement is the tendency to seek experiences that improve or bolster the self-concept by drawing attention to one's skills and talents (Baumeister 1998). The need for self-enhancement is one of the strongest motivators of WOM transmission. Hennig-Thurau et al. (2004) use the social interaction utility framework (Balasubramanian and Mahajan 2001) to develop a comprehensive list of reasons why consumers engage in eWOM transmission. Their survey of about 4,000 German forum users finds that concern for 'others', positive self-enhancement and economic incentives are the primary motivators of eWOM transmission. In addition, the authors find that self-interested consumers form the biggest segment of consumers in the forum. Interestingly, research shows that consumer's need for self-enhancement may not be always a useful outcome for other consumers. There is a distinction to be made here with respect to generation and transmission. Consumers usually generate more positive WOM when they talk about themselves. Therefore, generated eWOM is mostly positive. Wojnicki and Godes (2011) find that consumers with high category-specific expertise are motivated to communicate their satisfying consumption experiences. These experiences serve as evidence of their expertise. However, the propensity to generate WOM decreases in the case of unsatisfying experiences. Consumers can also self-enhance by highlighting negative aspects when describing others' performances. Therefore, the propensity to transmit negative WOM is much greater when compared to generation (Angelis et al., 2011).

Evidence seems to suggest that the need for self-enhancement might be one of the reasons why 'crowding-out' effect is minimized in the online world. (Dellarocas and Narayan

2007) Crowding-out effect' is typically seen in the contribution of public and charitable goods-situations where altruistic contributions from private individuals tend to diminish if a third-party increases its contributions (Andreoni 1989). As per this premise, the ready visibility of high (low) volume of eWOM messages should discourage (encourage) others to provide their opinions. However, studies find an opposite effect with respect to eWOM. Moe and Schweidel (2012), via their analysis of data from Bazaarvoice.com, find that products with greater number of positive reviews tend to attract even more reviews. However, there is a certain variation when it comes to who is posting the reviews. More experienced reviewers tend to post views that are slightly divergent to the existing opinion whereas less experienced reviews tend to go with the popular opinion. A negative fall-out of this phenomenon is the 'rich get richer' effect i.e., few products and services tend to attract substantial amount of WOM messages whereas the majority have few to none. This creates a substantial response bias which is much greater when compared to the offline world. In future sections, we discuss the implications thereof for both consumers and marketers.

Consumer psychographics

Consumers engage in eWOM conversations to advance the interests of 'self'. In these situations, product-related comments, opinions, and recommendations serve as mere means to an end. Consumers use WOM as a tactic to gain attention, exhibit connoisseurship, suggest pioneering spirit, demonstrate insider information, connote status, evangelize, and confirm own judgment (Dichter 1966). One of the 'self-oriented' factors that determine generation/transmission is consumer psychographics. Several aspects that have been found to correlate with transmission behavior include innovativeness and opinion leadership (Sun et al. 2006), ability and self-efficacy (Gruen et al 2006; Huang et al 2009), individuation (Ho and

Dempsey 2010) and neuroticism (Picazo-vela et al. 2010). Gruen et al (2006) apply the ‘Motivation-Opportunity-Ability’ theory (MacInnis and Jaworski 1989) as a framework to understand why consumers participate and contribute to consumer forums. A survey of about 650 Internet forums users finds that consumers’ motivations (relevance and interest) and abilities (ease of use and skills) to engage in eWOM primarily correlate with their WOM intentions. Further, these effects are moderated by the overall value of the firm’s offerings i.e., the value added by the products to consumers’ lives in terms of quality, value for money, etc. Ho and Dempsey’s (2010) survey of college students finds that consumers’ need to be unique (individuation) is strongly correlated with both generation and transmission intentions. Individuation is the willingness to stand out from others and people who are high in public individuation are more willing to voice their opinions and stand out in a community (Maslach et al 1985). Chan and Misra (1990, p.54) propose that the “*act of disseminating information through WOM communication makes opinion leaders stand out among their group, makes them ‘different’ than the other members.*”

Product/Retailer performance

Several product-involvement factors drive eWOM. The predominant paradigm that informs research into this set of factors is expectation-disconfirmation (Oliver 1980). Product performance and satisfaction as well as retailers’ actions are known to drive eWOM transmission. Studies have mainly used qualitative techniques such as content analysis to identify key concern areas in WOM messages. For instance, Ward and Ostrom (2006) perform a content analysis of negative eWOM messages downloaded from 40 different online forums dedicated a cross-section of industries. They find two key issues reflected in majority of the messages: product/service failure and procedural injustice. Not surprisingly, the authors find that procedural

injustices exacerbate the product failures and cause consumers to re-frame the failure as a personal vendetta against firms. Consequently, the objectives of the posters go beyond seeking redress for their specific complaint and include goals of receiving apologies for the injustices they experience, and warning other consumers about the firm, and even revenge against the firm. The greater the expectation gap, higher is the propensity to engage in negative eWOM. The price of a product or service definitely contributes to the expectation gap. Jurca et al (2010) analyze about 100,000 hotel reviews on Tripadvisor.com. They find that the higher the average daily room price, the greater the number of negative reviews associated with that hotel.

A product-related factor that is unique in this literature is brand reputation. Studies find that greater brand reputation increases the incidence and volume of eWOM (Ambler and Bui 2008; Dellarocas and Narayan 2007). It is possible that brand reputation is a reflection of enduring product involvement (Dichter 1966). A consumer's frequent and intense occupation with a product leads to thoughts and emotions that can be easily recalled in WOM episodes, oftentimes with enthusiasm, in order to relive the tension or the positive experiences. In addition, a product that is positively reviewed is implicitly being recommended to other consumers. When a product is negatively (or less positively) reviewed, consumers are being discouraged from purchasing it. Thus, if the recommended products have positive reviews, the likelihood of a sale and the posting reviews increases. Conversely, negative (or less positive) reviews reduce the likelihood of sales and consequently the posting of reviews.

In addition, retailer or companies' actions directly influence eWOM activity. For instance, Andreassen and Streukens's (2009) analysis of eWOM messages suggests that majority of the online messages predominantly fall into four categories: information request, usage experience, business practice issues, and comments pertaining to new product launches.

Similarly, Qu et al (2008) study consumer reviews from Yahoo!'s merchant rating system and find that consumers usually put greater weight on merchant's post-transaction services such as delivery accuracy, ease of returning products, customer service accessibility and post-transaction spam than transaction-related performance such as website ease of use and shipping cost. Further, it is now possible for marketers to explicitly engage consumers to generate eWOM. For instance, Picazo-Vela et al (2010) find that one of the reasons that consumers generate eWOM is due to the perceived pressure i.e., the degree of push in the form of follow-up invitations or calls from the sellers and/or intermediaries. Economic incentives also encourage consumers to actively transmit eWOM. Leaving aside the ethical implications, incentives definitely motivate consumers to go the extra length in generating and transmitting messages (Hennig-Thurau et al. 2004; Wang et al 2009). This is even more important given that fact that there are considerable cognitive and executional costs involved in transmitting eWOM as opposed to traditional WOM.

Altruism/Concern for others

Altruism is defined as the genuine desire to “*help other consumers with their buying decisions, to save others from negative experiences, or both*” (Hennig-Thurau et al. 2004, p. 42). Several studies have found this to be the driver of the incidence, valence, and volume of eWOM. For instance, Hennig-Thurau et al (2004) find that approximately 30% of consumers who post their opinions online do so purely for altruistic reasons and without any other agenda in mind. Dellarocas and Narayan (2007) conduct an interesting analysis of movie reviews on Yahoo! with the goal of understanding which product-specific attributes explain the variance in a consumers' propensity to generate eWOM. One of the key findings of the study is that consumers typically post reviews for either the really good or really bad movies (a U-shaped relationship). Consumers' propensity to post reviews is positively correlated with the level of disagreement

among professional critics i.e., the greater the disagreement, the greater the motivation for expert consumers to step in and break the tie with their opinions (reflecting the desire to help other consumers in the decision making process).

Need for social interaction

Sentiments such as need for social interaction, friendship and love are motives for sharing one's enthusiasm in products and services. WOM would be transmitted or suppressed depending on the stock of obligations one has towards, or expects from, other consumers (Gatignon and Robertson 1986). This category of factors is one of the most investigated in the eWOM literature as well. For instance, Dholakia et al (2004) find that maintaining interpersonal connectivity and social enhancement are two key reasons that motivate consumers to join and actively contribute to online forums. Based on the survey of about 500 online forum users, they find that group norms (i.e., others' expectations) positively affect consumers' perception of social identification with the members of the community and leads to participation behavior. In addition, the authors identify two key constituent factors of social identity: affective (emotional involvement) and evaluative social identity (evaluation of self-worth on the basis of belonging to the community). Other studies in the literature (e.g., Hennig-Thurau et al. 2004; Wang et al 2009) also find support for social influences and group norms as driving forces of eWOM activity.

A social-factor that has been rarely studied in eWOM literature is connectivity in network/tie characteristics. In the context of traditional WOM, it has been suggested that, in informational environments beset with moral hazards, consumers would share valuable information with their close friends and relatives only, avoiding distant acquaintances (Frenzen and Nakamoto 1993). However, the strength of the Internet is that it enables weak ties i.e.,

connections between information sources that would have been previously isolated and impossible to connect. A deeper understanding of how tie strength and network connectivity affect consumers' propensity to communicate eWOM is needed to shed light on the online c2c information diffusion. We identify a few studies that explore this interesting phenomenon.

For instance, Huang et al (2009) conduct a survey of email users to determine a population's propensity to transmit viral messages via email. They find that one of the key determinants of consumers' propensity to pass along emails is social network tie (defined as strength of the relationships, the amount of time spent, and communication frequency with the receivers). Similarly, Sohn (2009) conducts an experiment to understand how the strength of the network and valence of the message affect consumers' propensity to transmit eWOM. They find that consumers are more likely to transmit messages to networks with close ties than weak ties. Interestingly, this effect is moderated by the perceived value of information i.e., the communicator's perception as to how much the other group values the information. Consumers are more likely to pass on only negative messages to weak ties whereas they share both positive and negative messages with strong ties.

eWOM Effects On The Communicators

Surprisingly limited research has gone into understanding the effects of eWOM generation/transmission on the communicators i.e., the post-eWOM behavior of the communicators and the intervening processes that drive communicators' post-WOM behavior. The few studies that delve into this important phenomenon (e.g., Dholakia et al 2004; Schau and Muniz 2005; Dholakia et al. 2009) do so using extended netnographic methods as well as surveys that track behaviors of active contributors in online forums. Based on these studies, we identify three distinct yet interrelated outcomes for active communicators of eWOM information.

Learning and enhanced use of focal brands

Giving and receiving information are two sides of the same coin and are central to the functioning of communities (Ridings, Gefen and Arinze 2002). There are several functional benefits to regularly communicating product and consumption-related information to other consumers (Dholakia et al. 2004). One of the major benefits is increased learning regarding the functionalities of a specific product as well as the overall product category, leading to improved or enhanced use of the focal product. For example, Muniz and Schau (2005) mention consumer conversations in the Apple Newton community that help Newton users modify the product to perform functions other than those anticipated by the manufacturer. Evidence from several studies in this genre show that contributors/communicators actively seek to benefit from collective creativity which occurs when social interactions help them develop new interpretations and discoveries that thinking alone would not have generated (Hargadon and Bechky 2006). The consumer collectives help the contributors' ideation process through active variation and selection process (Simonton 1999) that is supported by diverse ideas and experiences brought to the table by various consumers.

Impression management

Impression management practices are those that have an external, outward focus on creating favorable impressions of the brand, brand enthusiasts, and brand community. Based on an analysis of conversations across several brand communities, Schau and Muniz (2005) identify two key impression management practices of active contributors: evangelizing and justifying. The key outcomes of these practices include justification to be active participants of such communities and dilute the stigma associated with extreme devotion to a certain product or

technology. It should be noted that these are practices in action that continually drive participation and benefit the community as a whole (Kozinets 2001).

Social capital and reputation

An important outcome for active contributors is a valued network of community acquaintances and better reputation management (Dholakia et al. 2009). In the offline world, status and reputation are buttressed by other resources such as income and possessions. However, in the online world, reputation is the only resource that can be developed and used to achieve an end. Individuals who care about this resource engage in several activities to protect it. As Kollock (1999, p.228) suggests, “...*high quality information, impressive technical details in one's answers, a willingness to help others, and elegant writing can all work to increase one's prestige in the community*”. This ‘built’ reputation becomes an intrinsic part of the contributor’s self-assessment, and a sense of establishing and maintaining reputation (Huberman et al 2004).

A positive outcome of this desire to maintain reputation is better online citizenship and greater effort to provide valuable information to eWOM seekers. Several studies have found evidence to this positive reinforcing mechanism. For instance, Chen et al (2010) conduct a field experiment involving members of movielens.org, a movie recommendation website. Following the basic premises of the social comparison theory (Festinger 1954), they hypothesize that when outcome information regarding other people’s payoffs is available, people show distributional concerns, such as inequality aversion (Fehr and Schmidt 1999), in this case, more reviews contributed to the website. Their findings show that, for instance, members who receive other members’ contribution statistics show a remarkable increase in the number of monthly review postings. On the other hand, members who are provided with outcomes information (e.g., net benefit scores of contributors – time spent and votes received from readers) tend to post better

quality reviews aimed at helping others make a good movie choice. More recently, {citation removed} find that reviewers with greater reputation (in terms of friends and useful votes) tend to write longer and more balanced reviews that are intended to help consumers. On the whole, evidence shows that even in relatively asynchronous, anonymous and goal-directed environments, information provision is viewed as an interactive communication with real-world benefits.

Antecedents to eWOM Consumption (Why do People Listen?)

The original area of interest to researchers was to understand why consumers consume/seek eWOM given all the associated problems such as anonymity and potential for deception. Considering the fact that these are attitudinal and motivational issues, it is not surprising that most of the studies have primarily used either qualitative exploratory techniques or surveys and experiments. These studies apply the tenets of traditional consumer information search theories (Bettman and Park 1980; Petty and Cacioppo 1986) to explicate key antecedents and moderators. In Table 2, we present the key research areas and a few representative articles for eWOM consumption and effects.

*****Table 3: Topics and Methodologies: Representative Articles - eWOM Consumption and Effects *****

Search/Evaluation efforts

One of the primary reasons why consumers seek online advice is to reduce ‘search/evaluation efforts’. Originally, retailers did not allow consumers reviews to be associated with product listings on their websites. Therefore, consumers naturally turned to online forums and comparison websites such as eopinions.com that allowed them to not only compare the attributes of various products but also see other consumers’ opinions. This is reflected in early

studies (Dabholkar 2006; Goldsmith and Horovitz 2006) that primarily use exploratory techniques to investigate eWOM seeking. Collectively, these studies find that: a) for consumers, two attributes - the ability to sort information and the presence of online reviews lend credibility to the information on rating websites and thus reduce the effort needed to shop for products online, b) eWOM is only a secondary source of information that shoppers use in conjunction with several other sources. It should be noted that consumers use this additional information for both pre- and post-purchase evaluation of products/services (Bronner and deHoog 2010; Hennig-Thurau and Walsh 2003). For instance, Bronner and deHoog (2010) analyze survey responses of about 10,000 Dutch vacationers and find that most vacationers visit sites with both marketer- and consumer-generated content (such as reviews). Surprisingly, marketer-generated sites are visited more than consumer-generated sites even though consumer-generated information is perceived more useful. This is mainly due to the 'unknown' nature of eWOM. However, there is a certain nuance to how consumers seek both types of information. Consumers use eWOM more to assess experiential - attributes such as service quality of a hotel but use marketer-generated information more for search qualities such as convenience of locations.

Risk reduction

Consumers' also seek eWOM to reduce risks inherent in online purchasing and product purchase in general. For instance, Sweeney et al. (2008) use the critical incident technique to explore consumers' motivations for seeking eWOM. They find that one of the key reasons for consumers to seek eWOM is to reduce the risk inherent in online purchasing. The study finds that the very presence of eWOM alleviates uncertainty and enhances trust in the online retailers and the products. In this sense, eWOM attached to a product acts as a visual heuristic to consumers. Kim et al (2011) conduct a survey of about 300 visitors to Las Vegas with the main

motive of understanding reasons why travelers consumer eWOM before booking hotel rooms. The results show that risk reduction and social assurance are the two important reasons that motivate consumers to seek eWOM. In this, the study finds several key differences across consumers' gender and expertise. For instance, risk reduction was a substantial motivator for female respondents to read online hotel reviews, regardless of their expertise level. On the other hand, the risk reduction motive for male respondents depends on their expertise, displaying an inverted-U pattern (Bettman and Park 1980).

Further, the extent of perceived risk and consumers' motivation to seek eWOM is determined by the type of product being considered (which eventually determines their ability and motivation to process information) (Gatignon and Robertson 1985). Mostly, studies have applied popular information processing theories such as the elaboration likelihood model (ELM) (Petty and Cacioppo 1986) to differentiate consumers' eWOM processing between hedonic vs. utilitarian or search vs. experiential products. For instance, Mudambi and Schuff (2010) assess the factors that contribute to consumers' perceptions of online reviews helpfulness. They differentiate the effects of the key factors between search goods (e.g., digital camera) vs. experience goods (movie DVD). Given the taste-based nature of experience goods purchases, consumers find moderate reviews more helpful than reviews with extreme ratings i.e., essentially, reviews that provide a balanced assessment of the experience products are considered more helpful than just raves or rants. On the other hand, given the information- intensive nature of evaluating search goods, consumers typically prefer reviews with more information content. Similarly, Smith et al (2005) conduct an experiment with student subjects to examine factors that affect consumers' trust in online reviews. They manipulate several factors including perceived background similarity (consumer-reviewer) and reviewers' expertise. The key moderating factor

is the type of service being considered by consumers (hedonic- selecting a restaurant for a date vs. utilitarian- selecting a restaurant for a business lunch). The authors find that peer reviews are, in general, perceived more trustworthy than other sources of information. In the hedonic condition, consumers place greater trust on peer reviewers with greater expertise and background similarity whereas in the utilitarian condition, consumers preferred reviews from editors of the online magazine. However, across both types of buying decisions, consumers prefer peer reviews that are considered to be more trustworthy albeit with less expertise.

Social assurance

Need for social assurance and reassurance drives consumers to seek eWOM. Bailey (2005) surveys about 200 student consumers to understand the motivations to visit online review hosting websites and also post reviews. He finds that one of the primary reasons why consumers visit websites hosting online reviews is to find additional sources of information and the next major motivating factor is the need for assurance that they were making a good (correct) choice i.e., essentially to know what others were thinking. Interestingly, this study finds that a small portion of the consumers also visit the same websites post-purchase, many times just for the sake of curiosity, but mainly for two reasons: either to reduce cognitive dissonance or to find evidence of dissatisfaction.

The extent to which consumers trust and use eWOM information is determined by several message and source-related factors. It is interesting to note that even in the relatively anonymous and goal-directed online environments, consumers use several traditional heuristics to assess the trustworthiness of information before making a decision whether or not to adopt it. Studies have explored several factors in this domain. While the constructs themselves have been

adopted from the literature on traditional WOM, the contexts in which they operate are significantly different leading to varying outcomes. Some of the message factors that are known to contribute to eWOM credibility/trustworthiness are relevance and empathy generation (Bickart and Schindler 2001; Rabjohn et al. 2008) helpfulness (Mudambi and Schuff 2010) and information value (Weiss et al 2008). Source factors include expertise (Smith et al. 2005; Weiss et al. 2008) and credibility (Wei and Watts 2008). Further, the methods used to measure and investigate these factors are in stark contrast to the traditional WOM research. eWOM exists in a physical space (in the form of text archives in the online world) and is non-perishable. Along with message characteristics, observers can now also access the self-disclosed background information of eWOM communicators. Therefore, it is now possible to analyze the textual content in conjunction with the providers' characteristics and behavior to gain unique insights into the dynamics on these online portals. For instance, Mudambi and Schuff (2010) assess the factors that contribute to consumers' perceptions of online reviews helpfulness. To this end, they analyze close to 1,500 product reviews from Amazon.com, the dependent variable being the proportion of helpful votes individual reviews have received from other consumers. They find that moderately-valenced reviews (with 3-ratings) and the amount of text in reviews (a proxy for information extensiveness) positively correlate with perceived helpfulness of reviews.

Researchers have also applied netnographic methods (Kozinets 2002) to study message and source-related factors that contribute to consumers' eWOM adoption. Weiss et al (2008) investigate factors that lead to consumers' perceptions of value and subsequent adoption of information/advice in online communities. The authors track information queries, provider responses, and objective valuations (in the form of number of votes) of these responses by information seekers in the discussion forum. The study finds that a provider's response speed

and the extent to which the provider's previous responses within a focal domain have been positively evaluated by others affect judgments of information value. Interestingly, the study finds that expertise depth (providing valuable information in a focal domain) is perceived as more credible than expertise breadth (a provider's tendency to respond to questions across different domains). This affect varies depending on the information needs/orientation of the consumers. Consumers in a decision-making orientation view expertise depth more positively whereas consumers in a learning-mode give more importance to expertise breadth.

Other factors

Our analysis finds that several interesting social eWOM seeking factors haven't been adequately explored in extant literature. Contrary to widespread belief, consumers seek eWOM not only during the evaluation stage of a rational consumer decision-making process but also when there is not even a recognized need for a product yet. Such conversations can be initiated upon exposure to an intriguing advertising message or even traditional WOM (Mangold et al. 1999). For instance, studies show that many times, eWOM consumption is not goal-directed and serendipitous in nature (Bailey 2005; Goldsmith and Horovitz 2006).

Hung and Li (2007) uncover two interesting antecedents- social capital and reflexivity. The authors analyze consumers' conversations in a Chinese online community dedicated to beauty products and also conduct interviews with some of the active participants of the community. They find that gaining social capital (Nahapiet and Ghosal 1998) is the main reason why consumers seek eWOM. The authors find that eWOM exchange eventually leads to a) narrow targeting i.e., a self-selection of consumers who are deeply interested in specific types of cosmetics and skin care needs (cognitive capital), and b) the forums also enable members with similar socio-demographic backgrounds to congregate and form social structures and hierarchies

dominated by members who have greater ability and motivation to build reputations in the online world (structural capital). This finding is similar to Arndt's (1967) assertions that consumers who are centrally positioned in social networks tend to seek out more WOM than their peers. The study also finds that consumers seek eWOM to balance their informational disadvantage and freely express their concerns. This leads to increased reflexivity (Askegaard et al. 2002) that enables consumers to resist the firms' persuasion attempts and consume responsibly (which in many cases mean less or controlled consumption).

eWOM Effects/Outcomes

One of popular theses as to the effects of eWOM is that it allows more informed purchase decisions because ready access to information helps consumers better determine which products from which vendors best meet their needs and preferences (Dellarocas 2003). More information reduces consumer uncertainty and search costs leading to a greater willingness-to-pay for products (Brynjolfsson and Smith 2000). From the vendors' perspective, eWOM enables better sorting and matching between products and consumers so that vendors may be able to charge higher prices (Clemons and Gao 2008). Researchers have always been on a quest to quantify the positive and negative effects of eWOM wide range of outcomes that marketers truly value. It is no surprise that this topic accounts for the largest number of studies (n=72) in our database. These studies apply a variety of methods and contexts to delineate the key dimensions and scale of eWOM effects.

Product sales (sale volume, revenues, & stock prices)

One of the most widely studied outcomes in the literature is 'product sales'. Most of the studies in this realm use archival data collected from websites hosting eWOM. A long-held belief of marketers has been that they should encourage c2c interactions on websites in order to

build brand loyalty. Initially, not much empirical evidence was available to support this conjecture. In their seminal study, Chevalier and Mayzlin (2006) examine the effects of consumer reviews and reviewer behavior on book sales in Amazon.com and Barnes&Noble.com. The study finds that on average, reviews tend to be very positive with more than 95% of the reviews carrying a star rating of either 5 or 4. Further, an improvement in a book's reviews positively impacts overall sales on a site. However, typically 1-star reviews (negative reviews) tend to have a disproportionately bigger influence on sales (indicating a negativity bias). Interestingly, review length (the amount of text in a review) is negatively correlated with book sales. The authors speculate that the length of a review reflects the enthusiasm of the consumers in ways that are not captured by star ratings, and consumers read and respond to the textual content in reviews.

The types of archival/panel data and methods used to measure eWOM effects present several identification challenges and biases including endogeneity and simultaneity (Godes and Mayzlin 2004), unobserved heterogeneity (Van den Bulte and Lilien 2001) and homophily (Aral et al. 2009). A failure to account for these biases leads to either an over- or under-estimation of the effects. We see several examples of studies that use rich data and advanced analysis to account for these problems.

One of the methodological solutions is to apply a vector auto-regressive model (VAR) (Dekimpe and Hanssens 1999) that accounts for endogeneity between WOM and traditional marketing, and the outcomes. Trusov et al (2009) study the comparative effects of traditional marketing and eWOM (online referrals) on customer acquisition in a SNS. The study finds that eWOM has substantially long carryover effects than traditional marketing actions and produce substantially higher response elasticities (long-term elasticity of referrals is approximately 20

times higher than the elasticity for marketing events (.53 versus .026) and 30 times higher than the elasticity for media appearances (.53 versus .017).

Another challenge is that eWOM is not exogenous i.e., the positive feedback mechanisms between eWOM and product sales - eWOM leads to more product sales, which in turn generate more eWOM and then more product sales. Duan et al (2008) examine the dynamic relationship between online movie reviews (from Yahoo.com) and box office revenues. To account for the unique nature of the movie life-cycle and associated WOM, they construct a set of log-linear models (Liu 2006) that account for a) the dynamic and interdependent link between daily box office revenue and WOM volume, and b) a multi-stage model of consumer decision making. The analysis shows that the star ratings have no significant impact on movies' box office revenues after accounting for the endogeneity. On the other hand, box office sales are significantly influenced by the volume of online postings, suggesting the importance of awareness effect. Zhu and Zhang (2010) find similar awareness effects in the video game industry. Their analysis finds that online reviews have greater positive effects on less popular games than games with well-established reputations.

Price premiums/Willingness-to-pay

Several studies find that eWOM also significantly affects consumer spending/willingness-to-pay in a product category. Bickart and Schindler (2001) recruit students to engage in a semester-long hypothetical purchase task in various categories including cameras, bicycles and books. In this experiment, one group of students was instructed to consult only marketer-generated information such as corporate/product websites, and the other group of students was asked to consult online reviews for the same products. The results reveal that,

across the board, students who followed eWOM reported having greater interest in the products as well as higher willingness to spend on the products in that category. However, students who followed only corporate/product websites showed much greater knowledge in the product category.

Pavlou and Dimoka (2006) conduct an interesting study to examine the relationship between consumer reviews and the ability of sellers to conduct business in EBay.com. Their main conjecture is that the textual content in the reviews carries nuanced information that signals various qualities of the sellers to prospective customers. This in turn affects consumers trust and their willingness to purchase from the sellers as well as the willingness to pay premium prices for their products. Using archival data on about 400 sellers (including consumer comments of those sellers and their product sales + pricing records), the authors find that feedback text comments create price premiums for reputable sellers by engendering buyer's trust in the sellers' benevolence and credibility (controlling for the impact of numerical ratings). The addition of text comments and benevolence also helps explain a greater variance in price premiums ($R^2 = 50\%$) compared to the existing literature ($R^2 = 20\% - 30\%$).

Trust & loyalty

It is well accepted in the present literature that eWOM plays a significant role in alleviating uncertainty and building trust and loyalty towards the retailers as well as products and services. Consumers are weary of the anonymous online world and shy away from online purchases due to heightened levels of perceived uncertainty. Trust reduces perceived uncertainty and reduces the fear of being exploited. Consequently, heightened levels of trust are associated with increased levels of use (Awad and Ragowsky 2008). While several studies have explored

various aspects of this relationship, we point to two studies that use robust and unique methods to examine the eWOM—trust/loyalty link.

Ba and Pavlou (2002) conduct a field experiment and use auction data involving buyers and sellers in EBay.com with the aim of measuring the effects of reputation systems on buyers' trust in sellers and the sellers' ability to cash-in on that trust by charging price premiums across several product categories. They find that when sellers have large number of positive reviews, they attract greater business from buyers and, on average, are able to charge higher prices than average sellers. In addition, when sellers have both positive and negative ratings, then the negative ratings have greater negative effect on sellers' ability to conduct business i.e., for a certain number of negative reviews, sellers have to provide bigger discounts to sell their products. Gauri et al (2008), using archival data from Bizrate.com (an online retailer rating service), model the relative importance of various positive features of online retailers such as website design, on-time delivery, positive reviews from consumers, etc in predicting consumer repurchase intentions. They find that WOM ratings best predict consumer repurchase intentions when compared every other positive attribute. It should be noted while modeling such relationships that there could be severe multi-collinearity issues since consumers' positive reviews could themselves be a function of several of the other positive traits. Therefore, rather than measuring linear effects of individual variables, it is better to use methods such as dominance analysis (Budescu 1993) that measure the overall contribution of an independent variable to the prediction of the dependent variable by considering all possible subset selections of various models possible with the set of independent variables.

eWOM dimensions & effects

WOM has two dimensions (Harrison-Walker 2001): 1) praise (valence), and 2) activity (frequency, number of people exposed, and quantity of information in the message). eWOM affords researchers the ability to explicitly parse these dimensions (hitherto observable only via self-reported measures) and separately study their effects on various market outcomes.

Valence is the positive or negative rating assigned by consumers (typically on 1-5 or 1-7 Likert scales) when they review products. The findings on the effects of valence have been equivocal at best. One group of studies (Chevalier and Mayzlin 2006; Li and Hitt 2008) find a positive relationship between valence and product sales and external influence propensity of online reviews. Chevalier and Mayzlin (2006) find evidence of confirmatory bias (Klayman and Ha 1987) that drives consumers to look for affirmative evidence supporting a product choice already made. On the other hand, studies also find evidence for negativity bias (Mizerski 1982) which suggests that when consumers are neutral, negative reviews tend to become more salient than positive reviews. Ba and Pavlou (2002) find that, in the presence of a large number of positive reviews (which is typically the case), negative reviews have a greater influence on trust ($\beta = 0.856$) than positive reviews ($\beta = 0.541$).

There are several nuances in ‘valence’ effects. Clemons and Gao (2008) find that star ratings do not accurately predict sales, and even if they do, only the reviews in the upper quartile (4 and 5 ratings) tend to be more accurate predictors than the reviews in the lower quartile. Xia and Bechwati (2008) conduct an experiment with student subjects to understand the differential impact of online reviews. They find that what matters more is the cognitive personalization (CP) that consumers develop while reading messages (Larsen et al 1987). Further, for consumers high

in affect intensity, extremely negative reviews with experiential information tend to evoke greater CP and have greater diagnosticity than moderate or positive reviews. On the whole, evidence seems to support the existence of negativity bias in the eWOM world. It is possible that given the overwhelming number of positive reviews online and the potential for deception, consumers usually discount the positive messages in the favor of negative messages.

Two aspects of eWOM activity, volume and quality have been extensively investigated by researchers. Most studies consider volume of eWOM as an indicator of the underlying intensity of the eWOM effect, even in offline WOM (Liu 2006). For instance, Dhar and Chang (2009) study the effects of chatter on blogs and SNS on sales of music albums. They track blog mentions of albums, consumer ratings on Amazon.com and number of fans of an artist on MySpace.com along with the weekly sales of the said albums. The study finds that controlling for traditional factors such as the artist and label popularity, album sales strongly correlate with number of blog mentions of an album and average Amazon.com consumer ratings. They find that an additional 1% increase in blog posts corresponds to a greater increase in sales than an additional 1% increase in MySpace friends. In addition, the study finds that online volume of eWOM has a better chance of predicting album sales than reviews and ratings from mainstream media outlets such as the Rolling Stone. Some studies (e.g., Davis and Khazanchi 2008; Park and Lee 2008) find mixed results as to the effects of volume. For instance, Davis and Khazanchi (2008) analyze data from a popular online retailer with more than 3 million unique customers. They find that pure increase in volume (number of reviews associated with each product) has no significant effect on sales. What matters more is the interaction of volume with the product category and product popularity (as measured by the number of product views). Simply put, product categories that are typically associated with higher volume of reviews and views see

greater individual product sales than categories with low volume of comments and views. These results support the notion that volume of eWOM creates an awareness effect that increases product visibility.

While various numerical features of eWOM have been studied extensively, it is only recently that researchers have started paying attention to the moderating effects of eWOM quality. As Mudambi and Schuff (2010) point out, as eWOM becomes more mainstream and pervasive, it is time to now focus on the quality rather than the quantity. It is a well-accepted notion in traditional WOM literature that the content in a WOM message as well as the reputation of the communicator are important factors that determine the persuasiveness of the messenger (Cialdini 2001). Some of the eWOM quality dimensions that have been examined in eWOM literature include argument quality (Cheung et al. 2009; {citation removed} and overall quality (Awad and Ragowsky 2008; Lee et al. 2008), and review helpfulness (Forman et al. 2008).

Discussion and Future Research

In this study, we survey about 148 studies and identify the main constructs that are associated with eWOM and a summary of the relationships between these constructs. We delineate both the eWOM communicators' and seekers' perspectives. In what follows, we outline several research opportunities to enhance our understanding of this unique phenomenon.

eWOM and the Dynamic Nature of Information Search

Consumers' quest for and use of information is dependent on the stage of the decision making journey (Engel et al 1990). While it is well accepted that eWOM significantly affects consumers' decision making, we still do not know how consumers actively consume and process

eWOM information during different stages of the process. Few studies that have studied this aspect consider two broad stages: pre- and post-purchase. Recent evidence suggests that eWOM might have significantly altered how consumers collect information during various steps of the decision making process (McKinsey 2009). The traditional understanding is that the decision journey is a linear process (the funnel) and consumers go through each step while systematically narrowing down the brand choices till they purchase a product and then, engage in post-purchase evaluation. However, McKinsey's (2009) study suggests that the decision journey is now a continuous loop in which consumers keep adding and deleting brands based on significant information from online c2c sources such as online reviews and interactions with family and friends via social media. The power of non-marketer sources such as eWOM is such that even brands that are never there in the original evaluation set might enter consumers' final consideration set if associated with positive eWOM. In addition, for many products, consumers actively seek eWOM in lieu of after-sales service and to understand what other consumers are experiencing, and these actions seem to significantly affect loyalty. This dynamic nature of the decision journey is in stark contrast to what is universally accepted in marketing literature. It is important for future research to examine how consumers incorporate eWOM into this dynamic decision making journey for various products and services.

Cultural differences in eWOM behavior

Another area that is ripe for investigation is culture differences in the transmission and consumption of eWOM. Previous research has established that culture affects a consumer's decision making process and in particular, the extent of information seeking (McGuiness, Campbell, Leontides 1991). As can be seen in our analysis, very few studies (e.g., Fong and Burton 2008; Park and Lee 2009) have investigated how consumers from different cultures (and

nations) seek and process eWOM information. Even those studies have essentially confined their analysis to cursory differences such as individualism vs. collectivism or uncertainty avoidance and do not go in-depth into the structural differences. As online commerce becomes global in nature, more and more retailers are expanding beyond the boundaries of the Western hemisphere into countries such as China and India, which are promising the next wave of consumerism. Yet, it is not well understood how consumers from different cultures seek and use eWOM information and what that means for marketers. For instance, most marketers now consider Amazon's decision to allow consumer reviews as a master stroke that differentiated it from all other online retailers and significantly enhanced consumer stickiness and loyalty. Does the same apply to Amazon.com in China or India? If so, what are the key design and delivery issues that should be considered to customize eWOM information for consumers from different cultures? Such knowledge is critical to retailers so that they can design systems that provide this information in the best manner possible.

Disaggregate effects of eWOM

The disaggregate effects of eWOM has received limited attention in the literature. The analysis in most studies assumes the aggregate effects of eWOM with the underlying assumption that all eWOM messages are equal when it comes to impact on consumers. However, we can safely assume that's not the case. As numerous studies have shown, consumers carefully assess the quality of information (depending on how important the purchase is) as well as the source characteristics and then decide which eWOM messages to adopt and which ones to reject. Consequently, some eWOM messages have bigger impact than the others. Some recent studies (Chen et al. 2008; Forman et al. 2008) find evidence on the disaggregate effects of eWOM. However, due the nature of their data, these studies consider only the hard characteristics of the

eWOM messages such as valence and volume and do not carefully delineate the socio-psychological aspects (such as source characteristics and reputation effects, source-consumer demographic similarity, etc.) As Resnick et al (2000) note: “... *simple numerical ratings fail to convey important subtleties of online interactions. For example, what were the reputations of the people providing the feedback?*” It remains an open question as to what extent community evaluations of individual reviews and individual reviewers influence consumer purchase decisions online. It is possible that the sources of these eWOM messages might be the key opinion leaders that firms must engage using various channels and use them to spread the good word to other impressionable consumers. Consequently, it is imperative for future research to identify and quantify the disaggregate effects of eWOM in various online forums.

Semantics and narratives

A niche area of research that is yet to be embraced by the mainstream academia is the effect of the feedback text and narratives in eWOM messages on various macro and micro-level outcomes. Only a few studies in our database have focused on how this feature impacts consumers and markets despite the assertions of seminal studies that textual content provide fine-grained information about products’ or sellers’ reputations that is likely to engender buyers’ trust and eventually the outcomes (Ghose and Ipeirotis 2008; Kozinets et al. 2010). Consequently, a whole new industry has been built on topics related to opinion mining and sentiment analysis using textual content in reviews. Studies in the recent past have provided evidence on the importance of semantics and narratives. For instance, Kozinets et al. (2010) conduct a comprehensive analysis of blog postings by bloggers who are termed as ‘influencers’. The key objective of the study is to understand the networked coproduction of narratives i.e., how the communication and narratives in the blog postings regarding specific products evolve due to

repeated interactions between eWOM generators and consumers. Their study finds that the types of communication and rhetorical strategies used by bloggers, in addition to following community norms, (e.g., evaluation vs. endorsement) has varying impacts on how consumers react to and act upon the information in the messages. Archak et al (2011), using data from Amazon.com, find that writing styles and language used in the reviews determine their impact. Reviews that confirm the information contained in the product description are the more important for feature-based products, while reviews that give a more subjective point of view are more important for experiential goods, such as music and movie DVDs. Similarly, they find that the style of a review reflects consumer sentiment and can also influence sales and pricing power of the listed merchants. While numerical ratings allow consumers to communicate product performance on various attributes, it is the actual text that provides them with the opportunity to articulate the nuances of their overall experience and convey useful information. Therefore, analysis of the textual content provides marketers with an opportunity to answer certain important questions: what do consumers talk about in the textual portion of eWOM messages? How do these issues relate to the numerical ratings? And more importantly, what is the impact of sentiment and narratives on various firm and consumer outcomes?

Service delivery costs & innovation

An interesting lacuna in the effects literature is the role of eWOM in reducing companies' costs of service delivery. At this stage, it is well established that eWOM directly affects product sales and revenues. However, not much is known about the direct effects of eWOM on companies' costs of delivering customer service. Several studies, mainly in the 'online communities' genre, have investigated how customers band together in product or company focused online communities and help each other by sharing information about product

functionalities and trouble shooting. Dholakia et al (2009) term this phenomenon as communal service delivery. It is also well known, via popular press as well as academia (Rosenbaum 2008), how companies, by encouraging c2c exchanges in online communities, not only cut costs of servicing customers but also obtained innovative ideas to improve the companies' offerings and build customer equity. Successful examples of such communities include 'Dell Ideastorm' and 'myStarbucksidea'. These savings and revenue additions should be taken into account when calculating the effects of eWOM.

Consumers' propensity to generate/transmit eWOM

This field is ripe for new research that throws light on the mysterious forces that motivate consumers to articulate themselves over the Internet. It is probably the biggest challenge facing marketers since engaging consumers over various channels of interaction including modern social media is imperative for future marketing success. Firms are relying more on eWOM and are recruiting consumers as volunteer opinion leaders. These agents are often unpaid and engage in eWOM only for the psychosocial benefits. In general, as Dellarocas (2003) points out, this is a typical problem with the provision of public goods since once they are available, everyone can benefit without any cost. However, the problem is exacerbated by the relatively anonymous and impersonal nature of the online world. Consequently, marketers face two problems: one is to elicit balanced (not just raves and rants) and informative feedbacks that benefits all the stakeholders, and more importantly, elicit honest feedback. Many recent studies (e.g., Chevalier and Mayzlin 2006; Hu et al. 2009) suggest that there is considerable under-reporting bias in the case of eWOM. Some of the studies in the literature uncover various antecedents of review writing behavior but suffer from a sampling bias since they survey a self-selected sample of consumers who already actively provide information online. Under-reporting bias is still

prevalent and can be problem going forward as it introduces several problems into the ways in which firms collect and aggregate eWOM information for the benefit of the consumers (Hu et al. 2009). To solve this problem, firms have been experimenting with many methods (e.g., Amazon's verified purchase reviews or paid reviews at epinions.com). Future research should investigate this interesting phenomenon and assess the effectiveness of initiatives to enhance consumers' propensity to write online reviews.

An important issue relates to the methods used to understand consumers' propensity to engage in eWOM. Most of the studies in the literature use either surveys or experiments to explore the antecedents of eWOM transmission. However, these methods rely heavily on retrospective self-reports. Previous research has identified two problems with self-reports in the context of WOM: First is the timing of the measurement. Most studies do not explicitly control for the time between eWOM and the consumption experience. This introduces a bias since measurement is affected by memory loss or enhancement over time (Brown and Beltramini 1989). Second is the amount of interfering material in the general content area (Feldman and Lynch 1988). As Moe and Schweidel (2012) show, consumers' own eWOM articulations are significantly affected by the valuations of other consumers and extraneous information. It is important for future research to consider these powerful biases while investigating antecedents and consequences of eWOM.

Post-eWOM effects on communicators

Previous research has identified a causal link between WOM transmission and loyalty although the evidence is not that robust (Hennig-Thurau et al. 2004; Gremler et al 2001). The link can be explained by the tenets of the self-perception theory (Bern 1964) which suggests that

when one publicly discloses a position, it increases their commitment to that position. When consumers, via eWOM, state their views and intentions to perform a behavior, the likelihood of those behaviors being performed increases (Cialdini 2001). It can be safely assumed that this principle applies to both positive and negative eWOM.

An important yet unknown variable in this context is firms' actions. As eWOM became more pervasive and mainstream, firms have also devised strategies to actively use the online feedback but also to actively engage the eWOM providers. For example, sites such as Tripadvisor.com, Yelp.com, and Hotels.com give managers of reviewed businesses the opportunity to contact the review writers to resolve any problems as well as publicly respond/rebut to the feedback- essentially, a form of service recovery. It is not known if such actions have positive effect not only on the communicators but also on other consumers who view such interactions.

Conclusion

Advances in information and communication technologies are rapidly changing the landscape of c2c interactions. What were once time sensitive, simple, and personal exchanges between people that had previously interacted and had relationships with one another has expanded to instantaneous communication between an unlimited number of people that may or may not have ever met. These communications, unless taken down, will last for a very long time, if not forever and influence many other consumers who seek information online. Understanding what makes up this unique phenomenon and its influences is a necessity for any business wanting to make an impact with their products and marketing strategies. The main purpose of this work is to explore the multi-dimensional nature of online WOM. In doing so, we provide a groundwork for future researchers to investigate the gaps in the literature that we identify to

further the knowledge and grow the understanding of the theory of eWOM. As the literature continues to grow, it will allow for a better understanding of how the theory of eWOM can be utilized by managers to build, grow, and maintain their firms, brands, and products. Only in this continued pursuit of insights can we provide better customer value and a meaningful business impact for managers.

Appendices

Table 1: Multiple Dimensions of WOM Communication Episodes (Adapted from Nyilasy, 2005)

		Focus of the Study	
		Antecedents of WOM (Causes)	Consequences of WOM (Effects)
Unit of Analysis	Receiver of WOM	<u>QI: Why do people listen?</u> <u>Our Analysis: 39 studies</u>	<u>QII: The power of WOM</u> <u>Our Analysis: 72 studies</u>
	Sender of WOM	<u>QIII: Why do people talk?</u> <u>Our Analysis: 32 studies</u>	<u>QIV: What happens to the communicator?</u> <u>Our Analysis: 5 studies</u>

Table 2: Topics and Methodologies: Representative Articles - Generation, Transmission and effects on the Communicators

eWOM Communication	Qualitative	Archival/Panel	Survey/Experiment
Consumer Psychographics	Gruen et al (2006)	Huang et al (2009); Wang et al (2009)	Sun et al (2006); Picazo-Vela et al (2010); Ho & Dempsey (2010)
Self-Enhancement	N/A	Dellarocas & Narayan (2007)	Hennig-Thurau et al (2004); Daugherty et al (2008)
Product Performance & Marketer's actions	Andreassen & Streukens (2009)	Jurca et al (2010) Wang et al (2009)	Roman & Cuestas (2008); Qu et al (2008); Sohn (2009)
Altruism/Concern for Others	N/A	Dellarocas & Narayan (2007)	Phelps et al (2004); Picazo-Vela et al (2010)
Social factors (norms, interactions, and relational benefits)	N/A	Koh et al (2010); Wang et al (2009)	Hennig-Thurau et al (2004); Bagozzi & Dholakia (2002 b); Dholakia et al (2004)
eWOM Effects on Communicator	Qualitative	Archival/Panel	Survey/Experiment
Impression Management	Schau and Muniz (2005)	N/A	N/A
Greater Learning	Schau and Muniz (2005)	N/A	Dholakia et al., 2009
Social Capital and Reputation	Chen et al (2008)	Weiss et al. (2008); {citation removed}	Dholakia et al., 2009

Table 3: Topics and Methodologies: Representative Articles - Consumption and eWOM Effects on Consumer Behavior

eWOM Consumption	Qualitative	Archival/Panel	Survey/Experiment
Reduce search/evaluation efforts/perceived risk	Dabholkar (2006); Sweeney et al. (2008)	N/A	Dabholkar (2006); Smith et al. (2005); Kim et al. (2011); Hennig-Thurau et al. (2003)
Maximize consumption benefits	Sweeney et al. (2008)	N/A	Goldsmith & Horovitz (2006); Kim et al. (2011); Bronner & deHoog (2010)
Social Assurance	N/A	Mudambi & Shuff (2010)	Kim et al. (2011); Hennig-Thurau et al. (2003); Bailey (2005)
Other factors	Hung & Yiyan Li (2007)	Hung (2009)	Li (2007); Bailey (2005)
eWOM Effects	Qualitative	Archival/Panel	Survey/Experiment
Product Sales (sale volume, revenues, & stock prices)	N/A	Chevalier & Mayzlin (2006) Duan et al.(2008) Trusov et al. (2009)	N/A
Price premiums/Product Spending	N/A	Archak et al. (2011) Pavlou & Dimoka (2006)	Bickart & Schindler (2001);
Purchase Intention	N/A	N/A	Park & Kim (2008); Senecal & Nantel (2006); Xia & Bechwati (2008)
Product Knowledge	N/A	Clemons & Gao (2008)	Bounie et al. (2001); Lee & Lee (2009); Lim & Chung (2011)
Trust & Loyalty	N/A	Ba & Pavlou (2002) Gauri et al. (2008)	Awad et al. (2008); Lim et al. (2006); Sparks & Browning (2011)

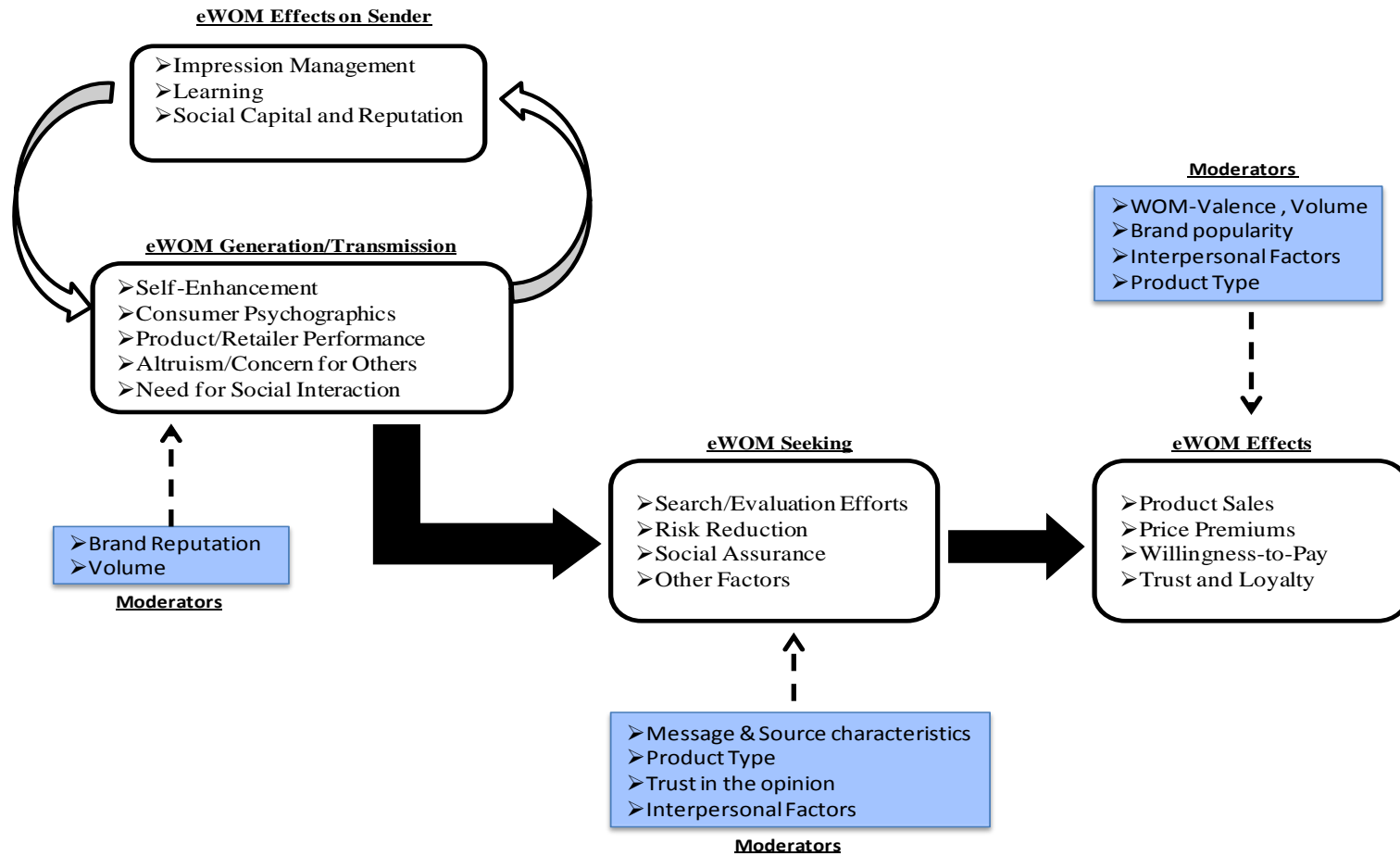


Figure 1: Principle Areas of Research in eWOM

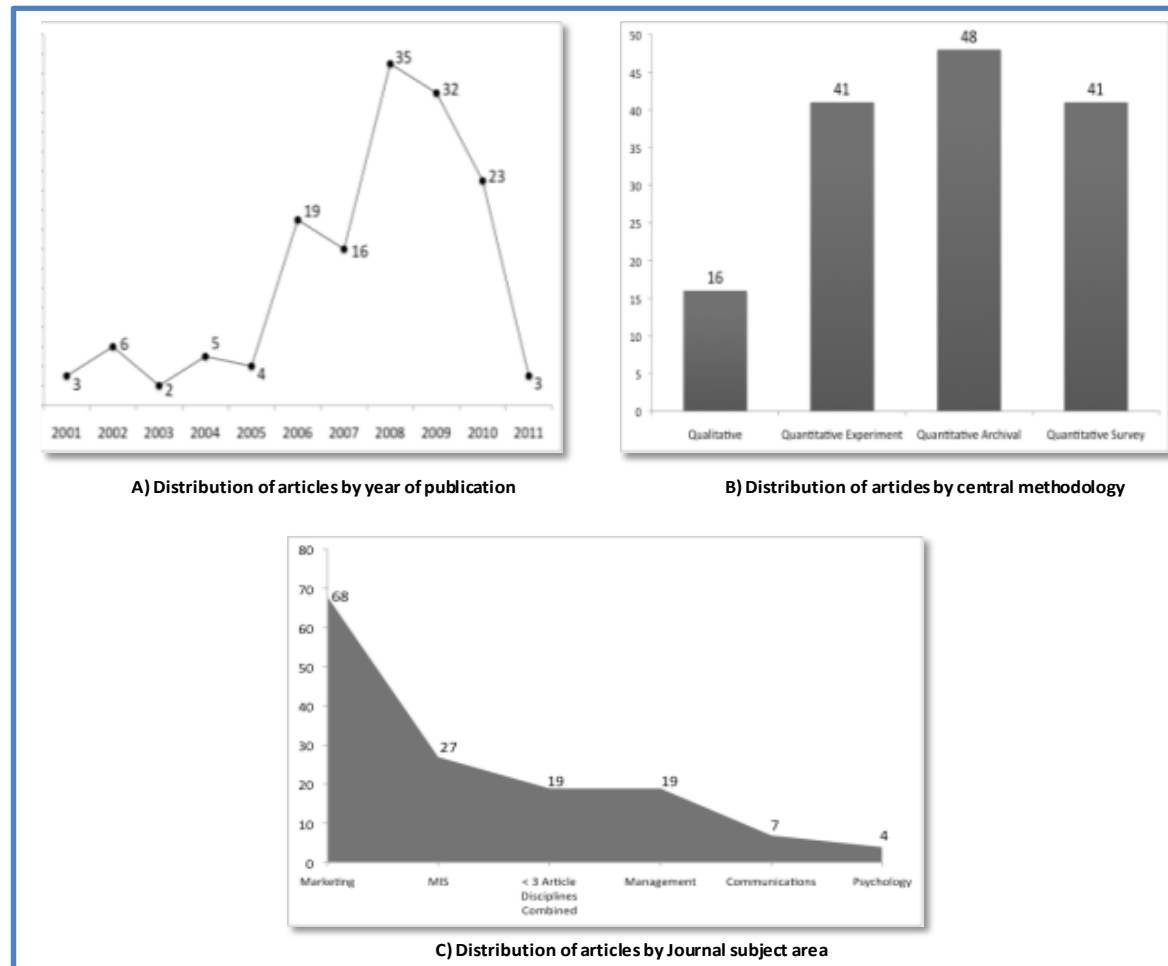


Figure 2: Key descriptive features of the dataset

Vitae

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