WOM Or eWOM, Is There A Difference?: An Extension of the Social Communication Theory to Consumer Purchase Related Attitudes

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ABSTRACT

While traditional word of mouth (WOM) and electronic word of mouth (eWOM) have both been shown to highly impact consumer behavior, there is a deficit in our knowledge of how they compare to one another. My dissertation research addresses the lack of empirical studies that compare WOM promotion in the form of face-to-face interaction to eWOM promotion in the form of computer-mediated communication, especially using Web 2.0 technologies. This research tests the assumption that WOM is superior to eWOM and, if so, how to extend eWOM to improve its performance against WOM.

Essay One introduces a proposed conceptual framework to differentiate WOM and eWOM based on Social Communication Theory. The overall conceptual model was derived from a qualitative research study that was used to explore and define the concepts, media types, and application of WOM and eWOM using a diverse panel of consumers.

Essay Two describes an experiment that was conducted to empirically test whether WOM impacts important marketing outcomes differently than eWOM using an ecologically valid research procedure. Essay Two further explores mediation using social communication elements as the underlying explanatory mechanism for the relative impact of WOM and eWOM on consumers’ attitude toward a message, attitude toward a product, and purchase intention. The results revealed that WOM has a significantly higher impact than eWOM on consumer purchase-related attitudes. The posited social communication framework did mediate or explain the relative difference between WOM and eWOM on the outcomes variables.

Essay Three investigates the robustness of the findings through a set of replication studies that test the effects across small and large sample sizes and across different methods of analysis. The results indicated that WOM showed a significant and consistently higher impact than eWOM across both replication studies. The third essay also examines factors that were influential in closing the relative gap between WOM and eWOM by introducing a third concept based on the Hyperpersonal Model of Communication Theory.

This research is important as it seeks to understand how consumers communicate in this digital age and why there is an evolution of the sharing of product information that leads to key managerial, theoretical, and methodological implications.
INTRODUCTION

Word of mouth (WOM) is accepted as an essential form of promotion that is a valid and powerful means to influence consumers to purchase products, satisfying both firm and consumer needs. According to Solomon (2015), word of mouth stimulates consumer spending and accounts for two-thirds of consumer product sales. WOM is not only conceptually important but also carries a significant managerial impact, based on the well-documented results of consumer-to-consumer word of mouth on purchase decision-making in the marketplace (Katz et al. 1955, Villanueva et al. 2008, Trusov et al. 2009).

A growing type of WOM is electronic word of mouth (eWOM), a fairly recent marketing success that mostly applies to the electronic commerce (e-commerce) marketplace for an ever-rising percentage of firm revenue. In research, however, the two avenues of marketing are construed to be identical, and the nuances of difference are generally not considered. This paper will examine the impact of WOM versus eWOM on customer evaluation that ultimately impacts the marketplace in terms of sales. Does electronic word of mouth carry a differential marketing potential from traditional WOM, or do these two forms of word of mouth deliver the same impact on consumer behavior? The comprehension of the efficacy of these two communication tools will provide what marketing managers must know to be at the forefront of online retail.

This is an important research topic due to its increased usage in communicating online and the resulting potential gain in influence by eWOM within the expanding e-commerce domain. In a national research study by Lab 42 (2012), eWOM (in the form of online consumer product reviews) ranked as the number-one aid in a consumer’s choice to buy products and services online. The role of eWOM will likely become more prominent as the online retail market grows (Rosario et al. 2016). Forrester (2016) reported that the online retail market drew $373 billion in 2016 alone and is predicted to reach $500 billion by 2020. With so much consumer spending at stake, it is becoming imperative that practitioners, as well as marketing scholars, explore the communication results of both WOM and eWOM, as one method may have elements that might not only transfer to the other but also make the extended form more effective.

Consequently, the relative impact of WOM versus eWOM on consumer attitudes and intentions must be considered, if the two are indeed different constructs (Meuter et al. 2013). Electronic word of mouth may be defined as written product information that is non-firm-sponsored and transmitted through an asynchronous, computer-mediated online channel from a consumer to a public audience (Hennig-Thurau et al. 2004). On the other hand, traditional word of mouth is non-firm-sponsored product information that is orally transmitted through a private, synchronous offline channel, non-computer-mediated, and directed from an individual to a private audience (Berger et al. 2013). Research in other disciplines indicates that there may be a difference between eWOM and WOM. Communication literature suggests that WOM is more impactful due to the role of nonverbal communication between individuals (Wiener and Mehrabian 1968); eWOM loses much of that richness via its mediated channel. Moreover, the literature indicates that the closer an audience is to the source of a message (i.e., a non-mediated method), the higher the effectiveness of that message to elicit the intended audience response (Daft and Lengel 1986). Given that WOM is traditionally conveyed face-to-face, it should be more effective due to a much closer format than the more distant and vast online context found in eWOM interactions. Using this line of thinking – that the two types of communication, while similar, are not identical – WOM should be more effective. The next question that becomes
managerially important to e-commerce retailers impacted by eWOM communication is as follows: Are there elements of WOM that may be conveyed to eWOM to improve its effectiveness? This dissertation will 1) provide a conceptual framework of WOM versus eWOM, 2) empirically test the relative distance between WOM and eWOM in relation to key purchase-related attitudes, 3) examine the underlying mechanism that explains this effect, and 4) explore elements that can attenuate the gap between WOM and eWOM.

Marketing literature has historically focused on eWOM, but less attention has been paid to traditional offline WOM (Lamberton and Stephen 2016, Baker et al. 2016; Cheug et al. 2012). This overemphasis on eWOM in the research has limited our understanding of WOM and its relative effectiveness versus eWOM. In a review of eWOM/WOM articles published in the *Journal of Marketing, Journal of Consumer Research, Journal of Marketing Research,* and *Marketing Science* from 2001-2016, 87% exclusively examined eWOM, while less than 1% exclusively examined WOM. For example, Kronrod et al. (2013) studied the use of figurative language in only eWOM messages on consumer attitudes; their findings were furthered by He and Bond (2015), who investigated the eWOM rating dispersion impact on consumer purchase intention. Moore (2012) examined the explanation type (i.e., an action-oriented message that reflects a customer’s decision-making process or a reaction-oriented message that reflects a customer’s product experience) in eWOM messages on consumer product choice without addressing WOM messages. McGraw et al. (2015) tested the effect of humorous complaining, specifically within eWOM messages, on consumer recall, as well as the likelihood of sharing. One of the main issues in studies of eWOM is the use of the phrase “word of mouth” in eWOM situations (Kimmel et al. 2014). The overemphasis on eWOM while erroneously calling the process WOM causes a conflation of the two terms (Walther 2011). As a result, eWOM findings are many times generalized to be the same as WOM even though the research has not supported such claims, which could lead to confusion or even misinterpretation of the results.

Without a proper theoretical foundation and empirical testing, it remains unclear whether WOM and eWOM are variants of the same construct or, in fact, are two different constructs altogether. Marketing scholars caution against the use of the human interpersonal relationship literature (e.g., love) without examining whether elements would transfer in part or in total to marketing relationships (e.g., brand love; Fournier 1998, Batra et al. 2012, Kimmel et al. 2014). Similarly, can eWOM be placed in the same nomological network of traditional WOM if the central characteristic of word of mouth is its interpersonal interaction? Should electronic word of mouth even be considered a variant of traditional word of mouth if there is no face-to-face exchange of a source’s product recommendation through words conveyed from the mouth? Importantly, eWOM may be considered word by mediation. The proposed theoretical contribution of this work will extend social-communication-based, conceptual theory into the eWOM literature as the foundation for examining the differential impacts of WOM versus eWOM on purchase-related attitudes. The methodological contributions include an ecological method of testing both traditional word of mouth and electronic word of mouth in the same study and testing an application of measurement theory and an application of multi-categorical structural equation modeling. The managerial implications based on the results lead to recommendations that will improve the efficacy of positive eWOM, the number one factor influencing consumer behavior in e-commerce purchasing (Lab 42 2012). Below I specifically outline the theoretical, methodological, and managerial contributions of this work.
THEORETICAL CONTRIBUTIONS

The first task in this domain is to conceptually define both WOM and eWOM in order to distinguish these constructs from each other. This research will explore the relationship between eWOM and WOM on influential variables (e.g., attitude toward the message, attitude toward the product, and purchase intentions) to establish a baseline effect of the relative difference between the two, if there is any.

A second theoretical contribution would be to extend the social-communication-based conceptual theory into the eWOM literature as the foundation for various impacts of WOM versus eWOM regarding purchase-related attitudes. This research answers the call to “explore theories from different disciplines ... [in order] to study how other key elements of social communication affect eWOM communications” (Cheung et al. 2012). According to Yadav and Pavlou (2014), “the classic models of communication still represent a valuable starting point” for the understanding of eWOM. Research has noted that the majority of eWOM papers over the last decade overwhelmingly used Dual-Process Theory or the Elaboration Likelihood and Heuristic-Systematic Models as the main theoretical lens (Gupta and Harris 2010; Park et al. 2007; Cheung et al. 2012). Other popular theories include Attribution Theory (Sen and Lerman 2007), Negativity Bias Theory (Park and Lee 2009), Social Ties Theory (Steffes and Burgee 2009), and Cognitive Fit Theory (Park and Kim 2009). However, this paper will introduce Social Communication Theory into WOM research in order to study the efficacy of eWOM and WOM.

METHODOLOGICAL CONTRIBUTIONS

This dissertation contributes a unique approach to studying WOM versus eWOM that increases external validity through actual face-to-face interpersonal communication, rather than the more widely used computer-mediated stimuli. An important facet of understanding WOM versus eWOM is the employment of a research design that preserves the essence of both (Baker et al. 2016). Lamberton and Stephen (2016) stated that there is a struggle “with ways to integrate digital with traditional ... that indisputably create value. ... We believe that crossover between the online and offline worlds warrants deeper exploration.” Prior researchers, having studied WOM and eWOM, applied a series of studies where WOM is the context of one study and eWOM is the context of another (Barasch and Berger 2014, Berger et al. 2013, Lovett et al. 2013). Direct comparisons were not accomplished, and as a result, the relative effect could not be determined. This dissertation contributes a unique method of studying WOM and eWOM collectively in the same study for direct comparison purposes. Future scholars may use this method to help explore this under-researched area to deepen the understanding of the convergent, divergent, and synergistic properties of eWOM and WOM communications.

Traditionally, prior studies that compared WOM and eWOM orchestrated computer-based stimuli as a proxy for face-to-face interaction (Barasch and Berger 2014). For example, Meuter et al. (2013) suggested that WOM consumers displayed a significantly higher attitude toward restaurants and an individual likelihood to eat at the restaurant than consumers who used eWOM; however, all messages, including the interpersonal WOM condition, were text-based and administered with a computer. There was no face-to-face oral presentation of the message. It was a computer-based WOM treatment that directed the participants to “imagine” they were speaking to close friends. Baker et al. (2016) based their findings on cross-sectional surveys that asked consumers to recall a past recommendation and then to indicate whether that interaction
was offline or online. The current study is designed to present live WOM messages through a source in which the audience can perceive the voice, appearance, and body language to be from a private location.

Finally, this research contributes to the research on WOM versus eWOM by employing a stronger measurement theory in empirical comparisons by employing multiple-item measures versus single-item measures. Prior studies were limited to the use of single-item measures (Barasch and Berger 2014; Baker et al. 2016; Berger et al. 2013), which in turn prevented calculation of measure reliability, thus threatening the validity of the measure (Aguinis et al. 2016). Also, using a single item measure tends to limit the generalizability of the findings if a future researcher wishes to use a different item or items to assess a more complete domain of a construct. This current research uses multiple-item measures to triangulate the psychological meaning of the construct and to substantiate reliability (Hair et al. 2010). If a single-item measure is used, authors should report a theoretical explanation; however, the use of multiple indicators improves the precision of the construct, as well as theory testing (Hayduk et al. 2012).

MANAGERIAL CONTRIBUTIONS

From a managerial perspective, the ultimate goal of this research is to increase the effectiveness of eWOM/WOM. The main goal is to strengthen positive reviews for higher revenues. The same extensive research that was conducted for a recommendation to mitigate negative messages also created a gap in our understanding of positive messages—especially in the Web 2.0 era. This research will increase the capabilities for marketing practitioner to make consumers more aware of products and services that greatly fulfill customer needs. Specifically, in Essay Three, eWOM was enhanced with additional theoretically developed WOM characteristics that made its impact significantly higher than traditional eWOM. An improvement of the effectiveness of positive consumer-to-consumer promotions would more broadly impact industries that seek to produce superior products. In addition, this research indicates that there may be a better path to maximizing resource allocation by using distinct yet complementary, marketing efforts. The research findings suggest WOM communication may be more appropriate for an increase in favorable consumer attitudes, while eWOM communication may be more helpful for a similar increase in purchase intentions. To achieve these managerial goals, implications to improve eWOM/WOM are provided.

ESSAY SUMMARIES

This section details the organization of three essays that address the gaps in the marketing literature concerning WOM versus eWOM. Essay One addresses comprehension of how eWOM and WOM influence purchase-related attitudes through the theoretical framework of perceived social communication. In Essay One, I propose a conceptual framework differentiating the two types of word of mouth based on a qualitative study and an in-depth literature review. The qualitative study expands our understanding of antecedents to WOM/eWOM. Based on the Social Communication Model, I posit that a change in method (i.e., from WOM to eWOM) serves to strongly change the perception of the communication process. Social Communication Theory is used to test the relative difference between the effects of eWOM and WOM on consumer purchase attitudes. Social Communication Theory will also be applied to explore the underlying explanatory relationship between eWOM and WOM and the outcomes variables (i.e.,
attitude toward the message and purchase intentions). The overall conceptual model for the dissertation may be seen in Figure 1.

Essay Two will first empirically test eWOM to determine whether its use impacts the outcome variables differently from WOM. Then the essay will explore the mediating influence of social communication elements as an explanatory mechanism for the efficacy of WOM/eWOM on consumer attitude toward a message, attitude toward a product, and purchase intention. The five social communication elements (i.e., source, channel, message, audience, and response) are then profiled to assess whether there is a clear pattern of relative difference between WOM and eWOM across the elements. Finally, the purchase-related outcomes are tested to investigate the attitude-intention relationship.

The third essay will examine the factors instrumental in closing the relative gap between word of mouth and electronic word of mouth, as discovered in Essay Two, by introducing a third condition, based on the Hyperpersonal Model of Communication Theory, reducing the difference in impact between WOM and its eWOM variants. Together, these essays will both qualitatively and quantitatively fill the gap from earlier research studies and thus increase our understanding of WOM in both offline and online contexts. Specifically, they will address a) how WOM and eWOM are defined, b) how they impact consumer purchase decision-making, and c) how eWOM may be improved to increase its impact on consumers to buy products and service. This increased understanding of the true nature of the similarities and differences of WOM versus eWOM will, in turn, lead to important managerial, theoretical, and methodological implications. Each of the essays is discussed in greater detail in the following section.

**Essay One Summary – Conceptualizing eWOM from WOM**

Word of mouth is the person-to-person, consumer-to-consumer flow of product information and experiences from buying and using a product or service, which is non-incentivized (Kotler and Keller 2012, Solomon 2015). Word of mouth may be construed as the engine that stimulates consumer spending, in that it accounts for two-thirds of consumer product sales (Solomon 2015). It has been shown to be more influential than commercial advertising and promotions (Arndt 1967, Hennig-Thurau et al. 2015), yet there is a gap in the literature regarding its performance in relation to eWOM.

Essay One first defines eWOM and WOM as specific types of consumer-to-consumer communication in a broad array of forms (e.g., blogs, forums, online reviews) and then delineates the similarities and differences between the two concepts. Next, a comprehensive review of the marketing literature provides a broader perspective on the fit of offline and online WOM within the marketing domain of communication formats, by means of a focus on recent research efforts and an identification of current themes and trends. From this review, comprehensive definitions were developed for why WOM and eWOM are different.

To further understand how consumers comprehend the conceptions of WOM and eWOM from a consumer point of view, a qualitative study was conducted. Early during the iterative qualitative process, credibility emerged as a foundational concept of why WOM is so important and a key factor in what differentiates online and offline WOM. Consistent with the literature, consumers perceive WOM to be highly credible (i.e., believable) because they believe others recommend products based on altruistic motives (Solomon 2015). This emerging credibility concept leads to the development of the qualitative research question (RQ):

**RQ 1:** How is credibility perceived by WOM and eWOM consumers?
The results of the literature review and qualitative study led to the introduction of social communication as a fundamental theory on how consumers spread product messages by word of mouth. Social Communication Theory is then introduced (a) to define the applicable communication elements as a means (b) to better understand the persuasive differences between the traditional word of mouth and electronic word of mouth (see Figure 1). This focus allows for developing a better understanding to assist both scholars and practitioners to clearly define and consistently identify WOM and eWOM, as well as to understand the relative difference in purchase-related outcomes (i.e., attitude toward the message, attitude toward the product, and purchase intentions).

![Figure 1: Conceptual Model of WOM and eWOM](image)

**Essay Two Summary – Has eWOM caught up to WOM?**

The objectives of Essay Two are twofold: to test the relative effect of eWOM and WOM on purchase-related outcomes, and to examine the structure of the underlying process that explains the effects of both WOM and eWOM. The purpose of this essay is to answer why eWOM is less impactful, equally impactful, or more impactful than WOM. Social Communication Theory suggests there should be a difference; i.e., eWOM is inferior to WOM because it communicates less information (Daft and Lengel 1986). For example, in eWOM, there is a decreased capability in conveying a message rich with multi-sensory information (when compared to that of WOM messages) by diminishing the impact on each of the Social Communication Elements (credibility, engagement, commonality, and helpfulness). As a result, the decreased capability then lowers the impact on purchase-related outcomes.

However, there is a substantive lack of empirical studies comparing traditional, face-to-face WOM communication to the emerging eWOM communication in the form of computer-mediated communication (CMC), especially using Web 2.0 technologies (see Figure 2). An investigation of the relative influence of eWOM versus WOM will provide a more detailed
perspective on the strengths and weaknesses of each, thus revealing transferable factors that may mitigate differential impacts between the two. Social Communication Theory will be conceptualized in a model that will inform the main effect through its role as a mediating process (see Figure 2b). This knowledge serves to increase our understanding of the relative effects of traditional word of mouth and electronic word of mouth on purchase-related attitudes (i.e., attitude toward message, attitude toward the product, and purchase intentions) and thereby brings to the forefront two specific research questions:

RQ 2: What is the relative impact of eWOM versus WOM on purchase-related attitudes?

RQ 3: Does Social Communication Theory mediate the relationship between WOM and eWOM on purchase-related attitudes?

Figure 2: Testing Empirical Models in Two Phases
Essay Three Summary – How Robust is the Relative Difference between WOM and eWOM: A Replication and Extension Set of Studies

Essay Three focuses on replicating and extending the effects found in the second essay. In Essay Two, traditional word of mouth was found to have a higher effect on purchase-related outcomes than electronic word of mouth. Essay Three opens by testing the replicability of these findings across essay samples and methods. In this essay, the differences between WOM and eWOM are examined using the samples from Essay Two and Essay Three to assess whether the results replicate (i.e., are shown to be consistent and enduring). Also, in this section, the differences between PROCESS and SEM analytical methods are examined to assess whether the results replicate across methods. Then, Essay Three extends the findings of Essay Two to introduce a third type of WOM communication by applying the Hyperpersonal Model of Communication as a theoretical lens to improve the relative impact of eWOM. Specifically, the Hyperpersonal Model suggests that the addition of subtle interpersonal cues in online environments could become a catalyst that sparks a social steroids effect. Social steroid is the notion that the impact of cues in an offline WOM conversation will significantly enhance the impact of online communication (Kimmel et al. 2014). In an eWOM context, nonverbal cues become limited, and senders develop their digital self-presentation by choosing cues that serve only to enhance the image and reputation. Therefore, contextual signals are overestimated in online contexts, leading to a “hyper” effect on the information processing of consumers (Tong et al. 2015). The Hyperpersonal Model of Communication suggests that elements of WOM communication may be transferred to make eWOM more effective. These humanizing elements (i.e., emotional and social cues) are more salient in eWOM messages, which leads the audience to overrate the signals, which in turn will lead to a higher impact of Hyperpersonal electronic word of mouth (HeWOM) than the traditional eWOM on purchase-related outcomes (Walther 1996). The Hyperpersonal Model elements/cues are then integrated into an eWOM message to develop a third type of consumer-to-consumer communication – the HeWOM word of mouth type. This new HeWOM communication is predicted to be significantly higher effect than eWOM, thereby reducing the relative distance between traditional WOM and eWOM. The first implication for e-retailer managers is the knowledge that positive eWOM can be improved. With Hyperpersonal cues, managers can increase the social presence and social link among a growing online community. The research questions for Essay Three are as follows:

RQ 4: Does the relative effect of WOM/eWOM on attitude toward the message replicate across the essays?
RQ 5: Does the relative effect of WOM/eWOM on attitude toward the message replicate across the methods?
RQ 6: Can eWOM be enhanced in a way that attenuates the relative difference between WOM and eWOM?
RQ 7: Does the mediating impact of the social communication process differentiate the extended conceptualization of eWOM?

In summary, this dissertation makes five contributions to the WOM literature. A conceptual model will be proposed in Essay One that will clearly separate the general term “word of mouth” into both the traditional WOM form and the eWOM form. The second essay will test the relative effect of eWOM versus WOM on consumer purchase-related attitudes. Thirdly, in a continuance of this process, Essay Two will consider the manner in which WOM
versus eWOM might influence purchase-related attitudes through a theoretical framework of perceived social communication. Essay Three contributes to science with a replication of the robustness of the relative effect of WOM versus eWOM to see whether it is consistent across the essay samples and methods. Finally, as a fifth objective, Essay Three will apply the lens of the Hyperpersonal Model of Communication to improve the effectiveness of eWOM messages. Both the Social Communication Model and the Hyperpersonal Model of Communication contribute unique theoretical perspectives to the study of consumer behavior.
ESSAY ONE: CONCEPTUALIZING EWOM AND WOM

INTRODUCTION

Marketing has transformed toward a digitized marketplace (Lamberton and Stephen 2016). In the past, traditional marketing focused on selling a firm’s goods to a mass audience or targeted consumers, while maneuvering to secure the best terms with its supplier or distributor. Companies assumed that they would normally keep their current customers and spent a good deal of effort to acquire new customers. At the turn of the century, Vargo and Lusch (2004) argued that marketing was evolving toward a dynamic, evolutionary process, applying a service-centered view that is informed by resource-advantage theory, competencies, knowledge, and relationship marketing. According to Lamberton and Stephen (2016), marketing may have now moved from all service to all digital. Lamberton and Stephen (2016) stated that “digital marketing is just marketing, simply because almost all marketing activities [that] a firm might consider now can have some kind of digital aspect.” It may have taken over fifty years to move marketing from a traditional industrial focus to a service-dominated focus, but in the span of just 15 years, we see a prominent digital focus (Lamberton and Stephen 2016). The popularity of the home Internet, coupled with Web 2.0 technologies and mobile devices, has constructed a networked marketplace where the flow of product information is no longer firmly controlled by companies. Web 2.0 is categorized by services (e.g., Facebook, Yelp, Amazon) that “facilitate connections, conversations, presence, and feeling through the linking of people with common interests via the World Wide Web” (Piecowsy 2008). The “digital transformation of marketing” (Lamberton and Stephen 2016) offers a considerable and enduring modification to marketing theory, marketing practice, and customer behavior (Kietzmann et al. 2011). At this time, a consumer message regarding one’s own or another individual’s personal product experience can be sent to an individual or mass audience within seconds of a click with the knowledge that feedback from others could be unknown (i.e., not sent back), positive, negative, or mixed (Walther 2011). This larger form of communication is called user generated content (UGC). UGC is information or material that is created by individuals who are the end consumers of a good or service (Trusov et al. 2009). Although UGC may be used for a variety of audiences (e.g., firm, government, educational), the concept becomes confounded when the UGC creator targets a consumer audience, more accurately described as eWOM (Lamberton and Stephen 2016). The next section discusses word of mouth communication, as it migrates to online contexts in its various forms and labels, inclusive of UGC and eWOM.

WORD OF MOUTH WITHIN DIGITAL MARKETING

Due to the explosion of the Internet, WOM has now become a “mainstream subfield within marketing on the academic side” (Lamberton and Stephen 2016). Even though there is clear evidence that 75% of word-of-mouth communications still occur offline and face-to-face (Berger 2014; Kotler and Keller 2012; Vranica, 2010), the most recent stream of research has largely focused on online word of mouth. What’s more puzzling is a bias toward eWOM, when the assumption is that traditional WOM is more impactful than eWOM. As an example, only a handful of articles published in the top marketing journals have examined WOM by itself or in tangent with eWOM in the last five years. Out of 39 WOM/eWOM articles, only four articles examined WOM with eWOM, and only one article investigated WOM by itself (see Table 1).
Table 1: eWOM/WOM in the Literature (2011-2016)

<table>
<thead>
<tr>
<th>JCR</th>
<th>eWOM</th>
<th>WOM</th>
<th>Both</th>
<th>Authors, YR</th>
</tr>
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<td></td>
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</tr>
<tr>
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<td></td>
<td></td>
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</tr>
<tr>
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</tr>
<tr>
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</tr>
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</table>

There is no shortage of research on eWOM, but very little research has compared WOM and eWOM to see whether the two constructs are related (Lamberton and Stephen 2016). This could be for several reasons. First, eWOM is much easier to study (Berger 2014). Text mining, data mining, data scrubbing, data crawling are all techniques to retrieve a large amount of online behavioral information to study. Also, researchers can experimentally create a mock website or track consumers in a visit to websites and collect data to analyze as well. However, the face-to-face interaction would require more time, resources, and participants – not to mention having to base one’s conclusions on “questionably accurate self-report data” (Lamberton and Stephen 2016). The process of identifying, assessing, and analyzing eWOM big data has provided great managerial insight to consumer behavior; however, this requires moving “beyond the observational methods that, while offering interesting insights, make causal inferences challenging” (Lamberton et al. 2016). A comparison of qualitative data to quantitative data on
eWOM would become more difficult if one were to observe WOM in an ecologically valid setting. Secondly, eWOM is more topical and therefore is becoming popular to study. The important phenomenon of eWOM permits researchers to publish manuscripts without the difficulty of WOM comparisons. Yet the ease of access to publishable electronic data is not reason enough to be the sole focus of WOM communication. What is gained or lost in translating personal messages from traditional means to electronic means becomes paramount to progress. To be succinct, is one method more believable than the other or more consciously presented? Are there different audience considerations or feedback effects?

A limitation of prior research that addresses both eWOM and WOM phenomena may be the lack of direct comparison between the two. In the few papers that contain both WOM data and eWOM data, both types of data are not analyzed together. The articles would contain studies that focus on the WOM and then finish with a set of studies that would focus on eWOM secondly without directing comparing them (Barasch and Berger 2014, Berger et al. 2013, Lovett et al. 2013). A second limitation of prior work would be the use of single-item measures of narrow outcome variables, such as a willingness to share (Barasch and Berger 2014; Baker et al. 2016), level of brand interest (Berger et al. 2013), or WOM/eWOM mentions (Lovett et al. 2013). This research will address these limitations by investigating both WOM and eWOM together within the same study. The impact will be measured using multiple-item measures on the following trio of fundamental consumer purchase outcomes: attitude toward the message, attitude toward the product, and purchase intention.

One perspective on the increased use of word of mouth in the digital age is to consider articles published in both academic and popular press settings. To assess the number of articles covering online word of mouth, Lamberton and Stephen (2016) used a keyword analysis “to give a general sense of the prominence of topics in this body of research” in the top five journals for marketing studies from 2001-2015: *Journal of Marketing, Journal of Marketing Research, Journal of Consumer Research*, the marketing section of *Management Science*, and *Marketing Science*. A keyword is a topic or construct that describes the subject of the article. Many journals limit the number of keywords to hone in the main idea, purpose, phenomenon, and/or method found in the article (Lamberton and Stephen 2016). One of the findings from the keyword analysis shows that user-generated content (UGC) is in the top five keyword mentions, while WOM is in the top 10 keyword mentions (see Figure 3). This displays the popularity of consumer expression, shown by UGC as information or material created by individuals who are the end consumers of a good or service (Trusov et al. 2009). Lamberton and Stephen (2016) defined UGC as “content contributed to online platforms by consumers, most typically online reviews.” In the article, WOM was not defined as traditional word of mouth or electronic word of mouth; however, the authors did code “each article’s keywords into a set of common keyword categories for the purpose of our analysis” (Lamberton and Stephen 2016). Therefore, both word of mouth and electronic word of mouth are assumed to be coded together as WOM. Within the popular press, Lamberton and Stephen (2016) discovered that user-generated content was mentioned ahead of big data but directly behind sales articles in the top six business press sources.

UGC and digital WOM largely reflect consumer expression in both academics, but has that usage been stable for the last 15 years, or rather, has the interest fluctuated with the times? From a citation analysis conducted by Lamberton and Stephen (2016), digital WOM and UGC have both been placed in the top four cited topics, with WOM taking the top position. According to the study, WOM is cited more than twice as much as the second-most-cited topic, social
networks, in both total citations and average citations by year (see Table 2). Those high rankings include both offline and online word of mouth. The next section continues even further to reveal the separation between WOM and eWOM in the literature.

![Figure 3: Total Keyword Count in Academic Journals, 2001 - 2015](image)

Table 2: WOM/eWOM Defining Terms

<table>
<thead>
<tr>
<th>WOM</th>
<th>eWOM</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
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<td>Oral = Spoken Word</td>
<td>Written = Text-Based</td>
<td>Berger et al. 2013</td>
</tr>
<tr>
<td>Synchronous = Concurrence in time</td>
<td>Asynchronous = Non-simultaneous occurrence</td>
<td>Berger et al. 2013</td>
</tr>
<tr>
<td>Private = Closed access to one receiver</td>
<td>Public = Open access to any number of receivers</td>
<td>Schlosser 2005</td>
</tr>
<tr>
<td>No electronic devices used to facilitate communication</td>
<td>= Electronic devices connected to an online network to facilitate communication</td>
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FUNDAMENTAL LIMITATION IN ASSESSING WOM IN DIGITAL MARKETING

There remains a gap in the marketing literature that speaks to the relative difference in the effect of WOM and eWOM on consumer purchase attitudes. While there has been a substantial amount of current research focusing on eWOM, there exists a lack of research comparing eWOM to WOM (Walther 2011). This could be for several reasons. The first reason is that eWOM is much easier to study. Using data mining tools, one can pull down voluminous amounts of data with which to analyze and test hypotheses. Experimentally, researchers can create a mock website or track consumers as they visit websites, thus collecting data for analysis. However, face-to-face interaction requires more time and resources. A more difficult comparison would be to compare qualitative data to eWOM’s quantitative data when observing WOM in an ecologically valid setting. A second reason is that eWOM is found to be more topical and popular to study, as an important phenomenon on its own. Researchers can publish manuscripts more easily without the difficulty of F2F comparisons. These two reasons have led to a disproportionate amount of research that focuses on eWOM rather than WOM or both approaches. This finding raises theoretical, managerial, and methodological concerns.

Theoretically, we are left in a conceptual blind spot to the relative effects of WOM and eWOM. To fill this gap, this dissertation will conceptually define WOM and eWOM to establish a clear delineation between the two. Also, this research will examine the relationship between eWOM and WOM on important marketing outcomes of interest to marketing practitioners (e.g., attitude toward the message, attitude toward the product, and purchase intention). If consumers like a product, they will have higher intentions to buy it and tell their friends and family (Meuter et al. 2013). Lamberton and Stephen (2016) clearly state that the literature “does not regularly and conclusively demonstrate that online WOM is, in fact, different from offline WOM in ways that matter for marketing ... However, the important question is not so much whether online and offline forms of WOM are different, but rather, whether these differences are important for marketers to know about.”

Managerially, this research will provide insights that shed light on when to influence WOM and when to influence eWOM. Also, one area of considerable value to practitioners is how to improve the effectiveness of positive reviews. Electronic word of mouth has impacted business in a substantial way, and much of the focus is on negative WOM. If WOM is still more impactful than eWOM, as pre-Internet studies have demonstrated, then studying both WOM and eWOM together may provide important insights that could directly influence the bottom line. Making eWOM more effective may be an approach to achieving a higher marketing share of the $373 billion dollar e-commerce industry.

Methodologically, there is no established method for authentically studying WOM and eWOM in a manner that preserves the essence of both (Baker et al. 2016). The difficulty in studying face-to-face interaction (WOM) as compared to computer-mediated interaction (eWOM) drives many researchers to study and publish solely eWOM articles. A key methodological contribution of this dissertation will be a novel method of presenting actual face-to-face WOM stimuli in a manner that still allows for quantitative comparisons between qualitatively driven WOM data and quantitatively driven eWOM data. Additionally, this research contributes an application of measurement theory by using multiple-item measures versus single-item measures and examining the effects of not correcting for measurement error in data analysis.
DEFINING EWOM AND WOM

A critical element of this research is to frame a conceptual and practical distinction between WOM and eWOM. These constructs are defined based on recent literature, notably Hennig-Thurau et al. (2004). Adapted from Hennig-Thurau et al. (2004), electronic word of mouth (eWOM) is defined as: written product information transmitted through a public, asynchronous, computer-mediated online channel from one consumer to another consumer. Electronic word of mouth, then, is a process in which a sender shares a message through a mediated artifact to an unknown number of people (Littlejohn and Foss 2009). Typically, eWOM is perceived as a one-way communication effort delivered through a medium to a vast audience of unknown or anonymous people (Littlejohn and Foss 2009). Building on the work of Berger et al. (2013), word of mouth (WOM) is defined as: product information orally transmitted through a private, synchronous, non-computer-mediated-offline channel from one consumer to another consumer. WOM is the exchange of information between people face-to-face (Littlejohn and Foss 2009).

As a two-way interaction, the exchange includes a direct and deliberate form of feedback between two or more known parties with or without a medium (see Table 3 for Media Types).

Types of WOM communication include face-to-face interaction, telephone, and video conferencing (Chung and Park 2012). In face-to-face interaction, both communicative parties share the same space and time. The receiver may perceive not only verbal and nonverbal cues the sender wants to convey, but also non-voluntary signals such as demographic or environmental cues (e.g., unpleasant smells, distracting sounds). A telephone’s basic function is to connect two or more parties via an audio line in order to have a conversation. In this case, the parties are in the same time, but not the same space. Video conferencing has been around for decades and shares several attributes of both face-to-face and telephone as a live connection that occupy the same time, but not the same space, similar to a telephone call. However, video conferencing allows more multisensory perception than just an audio connection. On the other hand, WOM communication displays more prevalence due to a) a natural and longer history, b) an independence from a computer, and c) an inherent cost-efficiency (Berger 2014). However, as the number of communication formats has expanded in the last decade, so have the consumer-to-consumer variants that follow a continuum between WOM and eWOM, anchored by face-to-face/WOM versus online reviews/eWOM (see Figure 4).

![Figure 4: Media Type Continuum](image-url)
Table 3: Citation Counts by Topic and Year

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Several types of eWOM are used to post and read messages from consumers to consumers, including online community forums, blogs, social networking sites, and online consumer review sites. A forum is an online message board among individuals who share a common interest (Kotler and Keller 2012). Consumers can choose a topic or thread to discuss and read post opinions that are archived on the site (Huang and Chen 2006). An example of a forum would be Hornfans.com, where supporters of the University of Texas sports program correspond over the latest Longhorn information. If forums are a community-centered website, then blogs (i.e., weblogs) represent an individual’s space online on which to share personal opinions on anything from food recipes to statistical modeling (Kotler and Keller 2012). These journal entries chronicle a person’s life experience similarly to a diary (Riegner 2007). An example of a blog would be Julie & Julia, where a fan of cooking personality Julia Child wrote about her experiences cooking Child’s 524 recipes in 365 days. Social networks (also known as social media) have been commonplace since Facebook took off in the late 2000s. Social networks are a “means for consumers to share text, images, audio, and video information with each other” (Kotler and Keller 2012). Another popular social media site is Pinterest, an electronic bulletin board where consumers pin photos of products they enjoy (Riegner 2007). Although researchers are examining forums (e.g., Zhang and Watts 2008; Andreassen and Streukens 2009), blogs (Lee and Youn 2009; Kozinets et al. 2010; Dhar and Chang 2009), and social networking (Chang et al. 2015; Trusov et al. 2009), the most researched form of eWOM has been online consumer reviews (see Cheung and Thadani 2012 for a review). Online consumer reviews are personal messages regarding a customer’s experience with a product or service, typically posted on a retailer’s website (e.g., Amazon.com); this information can be accessed by a simple Google search (Kotler and Keller 2012; Barreto 2014).

The media attributes that distinguish WOM from eWOM are oral versus written presentation, computer mediation versus no computer mediation, synchronous versus asynchronous interaction, and private versus public communication. Oral presentation denotes face-to-face delivery. The benefits to oral communication are that verbal and nonverbal information can be conveyed to help the receiver understand and clarify a message. Written presentation is a text-based message delivery. Written messages require a more cognitive processing to decode a mental image of the sender (Petty and Wegener 1998). The benefits to written-only messages include a less ambiguous transfer of information, better comprehension of information, and enhanced self-image and reputation (Berger et al. 2013). Synchronicity is the notion of being concurrent in time (Berger et al. 2013). A synchronous exchange is one in which the live exchange flows freely from sender to receiver with feedback sent back to the sender. An asynchronous exchange is one in which the sender creates a message at one time, but the receiver consumes the message at a later time. An example of this would be if a person pinned (i.e., posted) a picture of her favorite book on the electronic bulletin board Pinterest in 2015, but you just discovered the post in 2017. The information may still be relevant, if not timely. The private/public continuum “involves the degree of exclusivity of recipient access to a particular message” (O’Sullivan 2005). Private WOM messages are limited to an exclusive audience, whereas Public eWOM messages are available to a large, unknown audience (O’Sullivan 2005). Finally, non-computer-mediated communication denotes an interpersonal exchange that does not go through a computer to establish or maintain a connection (Walther 2011). A computer-mediated exchange uses smart electronic artifacts to send the message (Walther 2011). The critical point that delineates the point on the continuum from WOM to eWOM where the media type falls is the convergence of the media type elements. Emails can be private communications,
but they are mostly written, asynchronous messages that must be accessed by a computer. Furthermore, once sent, the “private” message may be made public; therefore, emails are a form of eWOM. Video conferencing can be written, computer-mediated media; however, it is mostly a multi-sensory, oral, synchronous, non-public media vehicle that does not need to be accessed through a computer. Video conferencing technology can be established through an intra-network of non-computerized phone systems. It falls on the WOM side of the continuum. Emails and video conferencing are in a close demarcation line between WOM and eWOM. To establish a clear, unambiguous case for the relative difference between WOM and eWOM, the current study will use the end points of face-to-face and online reviews as a proxy for WOM and eWOM, respectively.

**WOM is Distinct from Commercially Focused Firm Marketing Activities**

One of the defining aspects of word of mouth in either an offline or online form is that the message is noncommercialized. This means that the source of the WOM communication is not incentivized by a firm to provide positive or negative information (Pruden et al. 2004). Consumers perceive WOM to be more “reliable and trustworthy” because there are no ulterior motives for other consumers to share their personal experiences with the product or service (Solomon 2015). Stated simply, “people trust other people” over a corporation (Eccleston and Griseri 2008). WOM has the additional benefit of increasing awareness of the product being recommended and thereby cutting through the information overload usually provided by advertisements that bombard consumers from every media outlet possible (Leonard-Barton 1985). Also, a social element to WOM is not present in traditional advertisements. Adoption of a product recommendation (not overtly present in advertising campaigns) may come by means of social influence (e.g., family/peer pressure) for a personal product recommendation (Arndt 1967). In addition, WOM may come with some consequences. Since most WOM has an identifiable source, there exists a more active feedback channel in response to good and bad recommendations (Kimmel et al. 2014). As a result, a bad recommendation may impact the source’s credibility in the eyes of the receiver (Solomon 2015).

The above attributes of WOM allow a much stronger influence on consumer behavior than firm-sponsored marketing (Leskovec et al. 2007). For example, Villanueva et al. (2008) showed that customers acquired from WOM referrals command a lifetime value of 200%, compared to those brought through firm marketing efforts. Prior research has also found that WOM is twice as valuable as radio commercials, has four times the impact of salespeople, and is seven times more influential than newspapers (Katz et al. 1955, Trusov et al. 2008). The current research focuses on non-commercial messages among consumers. The effect of WOM over traditional firm marketing is firmly established in the literature. Therefore, the use of firm-sponsored marketing activities is out of the scope of this dissertation and will not be discussed further.

**VALENCE MESSAGES: A NEGATIVITY BIAS LEADS TO A GAP IN THE LITERATURE**

A critical determination in studying any form of WOM is the impact of the message valence. Consumers seeking information before a product purchase desire to know whether users of the product like or dislike the product. This information may be conveyed in message content in which the product is ultimately recommended or not recommended. A message that
recommends a product is termed a positive review, while a message that does not recommend a product is termed a negative review. This positive or negative evaluation of the product exhibits the consumer’s opinion of valence. Valence is the notion of the intrinsic attractiveness or repulsiveness of a product or service (Kim and Gupta 2013). The valence of a message provides the context the reader requires to comprehend the content (Engel et al. 2006).

The issue when studying eWOM is that negative message reviews have received more research attention because consumers and practitioners tend to focus on negative messages. There is a disproportionately larger amount of positive reviews than negative reviews (East et al. 2007; Dimensional Research 2013). East et al. (2007) stated that “when markets are competitive, products do not easily survive if they cause dissatisfaction. As a result, unsatisfactory products disappear, and most product experience is positive.” Research has shown that individuals provide an online review when they are extremely happy or extremely unhappy (Moe and Schweidel 2012). In an environment in which more products are positive, there will be more positive reviews than negative reviews. For example, Chevalier and Mayzlin (2006) found that there were significantly more positive than negative reviews on the websites of Amazon and Barnes & Noble. Consumers report that positive reviews are the number-one-ranked tool they use to determine whether a product should be placed into their consideration set (Lab 42 2012). Research into consumer recommendations has shown that a 7% increase in positive messages can lead to a 1% increase in revenues among a diverse set of product industries (Marsden et al. 2005). Although most consumers are happy with their products and managers want to promote positive-rated products, much research attention tends to be focused on negative messages. For example, Kim and Gupta (2012) found that negative valence in a consumer review had a significant impact on consumer attitudes, whereas positive valence in a consumer review did not. Ludwig et al. (2013) found that a negative change in the affective content of consumer reviews yields more influence on conversion rates than a comparable positive increase in a review’s affective content. Past research indicates a negativity bias in which negative messages that highlight product misgivings are more influential to consumer behavior than positive messages (Herr et al. 1991; Laczniak et al. 2001). Current research, however, suggests that negative reviews are not always more impactful than positive ones (Wu 2013). For example, Wu (2013) found negative reviews to be more impactful than positive reviews because they are more surprising. Kusumasondaja et al. (2012) found that negative online reviews were perceived to be more believable than positive reviews; however, positive online reviews trigger higher levels of perceived trust than a negative review. However, a consistent finding persists that “positive WOM typically motivates brand purchase or other positive brand outcomes (e.g., referrals), whereas negative WOM generally reduces purchase intentions and inhibits other brand behaviors” (Baker et al. 2016). The aforementioned research bias in eWOM/WOM has narrowly focused on implications to avoid or recover from negative postings, leaving a gap in the literature regarding positive eWOM/WOM. Since marketers’ intentions are to encourage positive WOM to drive sales, the current research will focus on positive recommendations, contributing to an under-researched area of e-commerce growth.

WHY STUDYING EWOM/WOM IS IMPORTANT

Key Element of The Consumer Buying Process

WOM and eWOM are powerful, influential, and impactful because these forms of communication are not only very persuasive (Arndt 1967, Hennig-Thurau et al. 2015) but also
more influential than traditional marketing efforts generated from a firm. According to Solomon (2015), WOM and eWOM stimulate consumer spending and account for two-thirds of consumer product sales. The remaining one-third was generated through commercial promotions from firm to consumers. Consumer-generated content regarding branded products is discussed more than 3 billion times a day (Keller and Libai 2009). There is clear and persistent evidence that eWOM plays a key role in consumers’ purchase decision-making (East et al. 2007, Chevalier and Mayzlin 2006), expectations (Folse et al. 2016), and attitudes (Kim and Gupta 2012, Lee and Youn 2009, Sen and Lerman 2007). Comparing eWOM to firms’ marketing efforts, Trusov et al. (2009) and Villanueva et al. (2008) found in separate studies that eWOM had stronger long-term effects on customer acquisition than traditional commercial marketing activities. This finding provides support to the common notion that a referral, either online or offline, from an actual client of a dentist or lawyer has a greater effect on new customer conversion than a television or radio advertisement. For example, the results from an analysis of secondary data on microlending showed that eWOM had a stronger, positive long-term influence on sales than newspaper advertisements (Stephen and Galak 2012).

**The Use of eWOM is Increasing**

The use of eWOM is increasing due to the higher number of consumers (e.g., late adopters) who use the Internet; the increase is heightened by the ease of access, coupled with technical capabilities to forward messages. More and more individuals are entering the digital highway as the Internet increasingly becomes a part of the modern way of life. One explanation for the increased use of eWOM is that the two largest generational cohorts are leading the way. The largest group consists of millennials, at 83.1 million individuals, followed by baby boomers at 75.4 million (U.S. Census 2015). Millennials have been described as digital natives who are familiar with technology and are technically savvy early adopters (The Economist 2010). This group grew up with the Internet and has gained further access to the Internet through the use of smartphones (Kotler and Keller 2012). For a growing number of baby boomers, the Internet has become a method of reducing uncertainty about goods and services (Pee 2016). In a survey conducted by Brightlocal (Anderson 2014), the results indicated that more than 87% consumers trust reviews, which is up from 79% in 2013, an increase from 67% in 2011 (see Figure 5).

In addition to more consumers using the Internet, the ease of access has also increased. “Online reviews are increasingly available for a wide range of products due to the pervasiveness of the Internet” (Barreto 2014). In contrast to WOM, eWOM can be publicly available around the world in an instant, even if the message is deleted after posting (Dellarocas 2003; Pee 2016). Finally, eWOM can be quickly shared with others and retransmitted, leading to a Twitter effect where one’s opinion can reverberate over time and over multiple known and unknown audiences (Radighieri and Mulder 2014; Hennig-Thurau et al. 2015).

**A QUALITATIVE STUDY THAT EXPLORES THE DIFFERENCES IN PERCEIVED CREDIBILITY BETWEEN WOM AND EWOM**

There has been very little research examining eWOM using a qualitative approach. Doing qualitative work is important in order to gain the perspective of the native audience to which a phenomenon applies. The purpose here is to conduct interviews with consumers to understand their comprehension of word of mouth and how they apply it to their lives. Many research studies use quantitative methods to establish credibility as an antecedent to other
constructs, yet without fully establishing how consumers interpret “credibility” with relation to the source of an eWOM message. Furthermore, there is a lack of research addressing the evolution of source credibility, as that credibility has moved from the offline to the online domain. Therefore, this research contributes to an understanding of major or subtle credibility differences between offline and online WOM.

![Figure 5: Distrust in eWOM is Decreasing](image)

The purpose of this study is to attain a rich understanding of credibility assessment in word-of-mouth communication and to learn whether this assessment differs when the word of mouth is offline or online. The research question of the qualitative study is as follows:

RQ 1: How is credibility perceived by WOM and eWOM consumers?

**Subjectivity**

My position in this research is that of an African American male researcher trained in the positivist paradigm (Lincoln 1995). My core belief is that source credibility, as a reflective, latent construct, focuses on the believability of a message source. My quantitative research stream centers on the source credibility of advertising and eWOM messages. From previous research, I believe that face-to-face stimuli, such as consumer decision-making, will have a stronger impact on human cognition than mediated stimuli. As a positivist, these are my views on the phenomenon of source credibility. However, I do believe that qualitative methods can speak to the phenomenon of human experience in credibility assessments presented in both offline and online contexts. I believe that word-of-mouth phenomena can be examined with multiple methods and approaches (Sale et al. 2002).
Literature Review

In the current study, I endeavor to understand what people perceive and/or believe about their personal experiences with credibility in word-of-mouth situations while excluding my subjectivity and personal experience regarding the topic. When consumers are asked why they use WOM, they typically respond that they find it to be more credible than other promotional methods (Solomon 2015). When looking for a dentist, auto mechanic, or movie, people trust the word of other people (Manning et al. 2014). The WOM literature bears this out. In this section, a literature review on the subject of word-of-mouth credibility will be discussed. Credibility refers to the believability of a message (Hovland and Weiss 1951). Source creditability refers to the notion that consumers are influenced by the believability of the creator of a message (Hovland and Weiss 1951). The marketing and communication literature has assessed three reflective dimensions that a consumer uses to determine the believability of a message source: expertise, trustworthiness, and approachability (Hovland et al. 1953; Eisend 2006). Expertise is the perceived product knowledge of the source, based on his/her experience (Li and Zhan 2011; Spence and Brucks 1997). Consumer product recommenders seem more believable if they are perceived as knowing what they are talking about regarding a product. Trustworthiness is defined as the belief that the source is telling the truth (Wiener and Mowen 1986). It is the notion that the information is reliable due to the honesty of the consumer (rather than the product seller) in conveying actual product experiences. Approachability is defined as characteristics that would attract an audience toward a source. Attributes such as friendliness, favorable appearance, and a charming/captivating personality have been found to increase the perception of credibility in individuals (Burgoon et al. 2002).

Research has shown that consumer expertise and trustworthiness become more impactful dimensions of source credibility than perceived approachability in assessing verbal eWOM (O’Reilly and Marx 2011). This could be because consumers overtly use expertise and trustworthiness to assess the information diagnostics of eWOM. Information diagnosticity refers to the usefulness, relevancy, and adequacy of information to assist a consumer in making a decision (Andrews 2013; Lynch, Marmorstein and Weigold 1988). In traditional WOM, the sender and the receiver can have face-to-face contact that allows a consumer to be influenced by a similarity between the two. In eWOM, it may be more difficult for the reader to determine the approachability of the sender, and readers may be less motivated to do so. There is also a subliminal element to approachability that is investigated in this current study. Might the reduced perception of approachability be found from traditional WOM to eWOM communications? Could there be a case in which WOM is impacted equally by expertise, trustworthiness, and approachability, whereas verbal eWOM is impacted by more by expertise, and trustworthiness more than approachability?

Importantly, this qualitative study before a control experiment is conducted for several reasons. One of the issues of survey work assumes that consumers know what each word (e.g., WOM, eWOM, credibility) in the survey means and that the survey is interpreted collectively. It is also important to know whether the definitional comprehension of credibility changes, depending on the type of WOM. If so, this might become a possible moderator for future research. The research gap informs this study to understand (or confirm) what source credibility is and whether source credibility differs from offline WOM to online eWOM. The following sections detail the sample, study setting, reflections on ethics and validity, data analysis method, data collection and analysis, and key findings.
Sample and Study Setting

In order to understand the lived experience of consumer interpretation and assessment of source credibility in eWOM, I used a purposeful sampling method. Purposeful sampling seeks to select participants based on conditions guided by the research objective. The sampling frame was limited to subjects who had used eWOM to aid them in online purchases. During the screening stage, I requested that participants provide evidence to show they had engaged in eWOM communications. The final sample was composed of a diverse set of participants (i.e., diverse in age and gender) who used eWOM. Many participants also brought supplemental material, indicating that they purchased products and services after reading eWOM messages (see Table 4). The sample contained consumers with an age range from 19 years old to 72 years old. Twenty-seven participants in total were used for this qualitative study. In gender, 13 participants were male, and 14 participants were female. This number is greater than the rule-of-thumb number of 15 participants, as prescribed in Creswell (2013).

To arrive at the essence of the phenomenon, this broad consumer-based approach seeks the commonly lived experience across a large spectrum of ages. Subjects in their teens and twenties may have more technical expertise or familiarity with computers and mobile devices (O’Reilly and Marx 2011), but older consumers may have different resources, experiences, and objectives. The rich description of these shared, multiple experiences is what I seek to obtain. The setting for the study was an eight-seat conference room, which provided a private, environmentally controlled environment. The conference room was located in an academic building on a major state university campus.

Reflections on Ethics and Validity

In Creswell (2013), the notion of validity of phenomenological research centers on the description of the essence of the phenomenon developed and supported from the data. Critical self-awareness by the researcher is necessary to judge whether any bias from his personal experience may influence the results to the point where the descriptions do not reflect the accurate experiences of the subjects (Creswell 2013). This includes another source checking the transcript to make certain the transcript accurately relays what the subject has communicated. If other researchers analyzed the horizontalization statements, would they draw other conclusions, and are these alternative conclusions noted and discussed? To deliver a high-quality, high-validity study, Creswell (2013) urges researchers to be reflexive from the start of the study to the submission of the manuscript.

Ethical considerations must go beyond Institutional Review Board (IRB) approval. I provided the following assurances: that participants are free from physical and psychological harm, that participants give prior consent, and that they are provided the option to withdraw from the study at any point without consequences. I reflected on my position as a university researcher and any perceived power differential that may have influenced the participants. I was mindful not to fall into a “friendship role,” as described by Plummer (2001), because of the one-on-one interviews, the private setting, and shared personal stories of social interactions. I paid particular attention to how I closed out the study and how (if at all) I might remain in contact with the subjects afterward. All names and identifying information are held in strict confidence, and pseudonyms are used in reporting the data. The ownership of all data and findings will remain with the university. No subjects were recruited from vulnerable populations.
Table 4: Participant Profiles

<table>
<thead>
<tr>
<th>Pseudonym Name</th>
<th>Education</th>
<th>Gender</th>
<th>Race</th>
<th>Age</th>
</tr>
</thead>
<tbody>
<tr>
<td>Donna</td>
<td>High School</td>
<td>Female</td>
<td>Black</td>
<td>72</td>
</tr>
<tr>
<td>John</td>
<td>Sophomore</td>
<td>Male</td>
<td>White</td>
<td>19</td>
</tr>
<tr>
<td>Bill</td>
<td>Sophomore</td>
<td>Male</td>
<td>White</td>
<td>19</td>
</tr>
<tr>
<td>Tony</td>
<td>Sophomore</td>
<td>Male</td>
<td>White</td>
<td>20</td>
</tr>
<tr>
<td>Jane</td>
<td>Sophomore</td>
<td>Female</td>
<td>White</td>
<td>19</td>
</tr>
<tr>
<td>Lillian</td>
<td>Sophomore</td>
<td>Female</td>
<td>Black</td>
<td>19</td>
</tr>
<tr>
<td>Howard</td>
<td>Sophomore</td>
<td>Male</td>
<td>Black</td>
<td>20</td>
</tr>
<tr>
<td>Julie</td>
<td>Sophomore</td>
<td>Female</td>
<td>White</td>
<td>19</td>
</tr>
<tr>
<td>Sabrina</td>
<td>Sophomore</td>
<td>Female</td>
<td>White</td>
<td>20</td>
</tr>
<tr>
<td>Kristie</td>
<td>Sophomore</td>
<td>Female</td>
<td>White</td>
<td>20</td>
</tr>
<tr>
<td>Matt</td>
<td>Sophomore</td>
<td>Male</td>
<td>White</td>
<td>20</td>
</tr>
<tr>
<td>Samantha</td>
<td>Sophomore</td>
<td>Female</td>
<td>White</td>
<td>19</td>
</tr>
<tr>
<td>Chris</td>
<td>Junior</td>
<td>Male</td>
<td>White</td>
<td>22</td>
</tr>
<tr>
<td>Lisa</td>
<td>Junior</td>
<td>Female</td>
<td>Black</td>
<td>27</td>
</tr>
<tr>
<td>Amanda</td>
<td>Junior</td>
<td>Female</td>
<td>White</td>
<td>22</td>
</tr>
<tr>
<td>Robert</td>
<td>Junior</td>
<td>Male</td>
<td>White</td>
<td>22</td>
</tr>
<tr>
<td>Mallory</td>
<td>Junior</td>
<td>Female</td>
<td>White</td>
<td>21</td>
</tr>
<tr>
<td>Art</td>
<td>Junior</td>
<td>Male</td>
<td>White</td>
<td>21</td>
</tr>
<tr>
<td>Richard</td>
<td>Junior</td>
<td>Male</td>
<td>White</td>
<td>20</td>
</tr>
<tr>
<td>Ronald</td>
<td>Junior</td>
<td>Male</td>
<td>Black</td>
<td>21</td>
</tr>
<tr>
<td>Rebecca</td>
<td>Junior</td>
<td>Female</td>
<td>White</td>
<td>21</td>
</tr>
<tr>
<td>Tracy</td>
<td>Junior</td>
<td>Female</td>
<td>White</td>
<td>20</td>
</tr>
<tr>
<td>Lauren</td>
<td>Senior</td>
<td>Female</td>
<td>White</td>
<td>21</td>
</tr>
<tr>
<td>Donald</td>
<td>Senior</td>
<td>Male</td>
<td>White</td>
<td>22</td>
</tr>
<tr>
<td>Ray</td>
<td>Senior</td>
<td>Male</td>
<td>White</td>
<td>23</td>
</tr>
<tr>
<td>Tom</td>
<td>Senior</td>
<td>Male</td>
<td>White</td>
<td>23</td>
</tr>
<tr>
<td>Angela</td>
<td>Graduate</td>
<td>Female</td>
<td>Black</td>
<td>30</td>
</tr>
</tbody>
</table>

**Data Analysis Method**

The data analysis method used in the study followed a phenomenological approach. This method was chosen due to its focus on a phenomenon or lived experience of a group of individuals, which is in concert with this study’s focus on the lived experience of the assessment of source credibility of offline and online WOM. The following steps, as recommended by Moustakas (1994), were followed to analyze the data (Creswell 2013): 1) horizontalization refers to the selection of important statements that provide insight into the subjects’ experience of the
phenomenon; 2) clusters of meaning refers to creating themes from the horizontalization process; 3) textural Description refers to a rich description of the experience, context, and setting from the statements and clusters from the previous steps; 4) structural description refers to the depiction or re-creation of the context and setting, drawn from the transcripts of the subjects’ experiences with the phenomenon; and 5) essential structure refers to the combined description that reflects the essence of the phenomenon.

**Data Collection and Analysis**

Data collection was completed using interviews conducted over a five-month period. Multiple interviews were used to obtain a comprehensive description of the lived experience (Creswell 2013). The interviews were guided by open-ended questions to determine what “source credibility” of word of mouth meant to the participants, what their experiences were in terms of the source credibility of word of mouth, and what the contexts or situations were that typically influenced or affected their experiences of source credibility of offline and online WOM (Creswell 2013; Roulston 2010). Due to my experience with the topic, I was mindful not to “offer causal explanations or interpretive generalizations,” nor to critique or debate with the participants (Roulston 2010).

Based on qualitative procedures, the interviews were semi-structured in nature, and pre-written, open-ended questions were asked of all participants (Glesne 2006). Non-scripted follow-up questions were presented in order to fully understand a discussed topic and drill down into relevant and emerging subjects. After using a series of questions to confirm whether the participant met the criteria for the study, the following two questions were used to initiate the discussion: “Why do you read online reviews?” and “Why do you post online reviews?”

**Key Findings**

In phenomenology, there is a notion of the intentionality of consciousness in which the subjects must perceive and become aware of the phenomenon (Creswell 2013). Past literature suggests that aspects of source credibility can be subliminal to consumers (Naylor et al. 2012). Many participants were slow to acknowledge whether or how credibility factored into their decision-making process. For example, Jane indicated that the source would have to emphasize his or her expertise or be really attractive or charming for her to notice any credibility. Beyond an initial hesitancy, themes emerged from the discussion that shed light on the topic. From an analysis of the data, the following areas converged to form three dominant themes: 1) the age of the source, 2) the product type of the recommendation, and 3) the buyer readiness of the consumer (see Table 5).

**Source Age**

The perceived age of the source had more of an effect than any other demographic attribute. Source age is defined as the number of years a perceived other has lived (Naylor et al. 2012). The participants in the study seemed to draw more expertise conclusions than trust or approachability conclusions based on the perceived age of the source. For example, participants such as Donna said “Older people know what they are talking about,” and Ray stated, “Guys my age recommend stuff to be first and not so much to be right.”
## Table 5: Participant Examples of Emergent Themes

<table>
<thead>
<tr>
<th>Theme</th>
<th>Participant Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>Source Age</td>
<td>Ray: “Guys my age recommend stuff to be first and not so much to be right.”</td>
</tr>
<tr>
<td></td>
<td>Donna: “Older people know what they’re talking about.”</td>
</tr>
<tr>
<td>Product Type</td>
<td>Tracy: “I look for visual reviews if I wanted a used product. It works best to see what condition the product actually is before I buy it.”</td>
</tr>
<tr>
<td></td>
<td>Robert: “I use YouTube to see the service in use.”</td>
</tr>
<tr>
<td>Buyer Readiness</td>
<td>Samantha: “I flip through so many reviews on my iPhone, I don’t really care who wrote this one or that one.”</td>
</tr>
<tr>
<td></td>
<td>Tony: “When I’m interested in a product, I go to a website that is known for that type of product, like Revzilla for motorcycle gear.”</td>
</tr>
</tbody>
</table>

Age has been examined as a factor in credibility in the marketing literature. For example, Naylor et al. (2012) manipulated the age of consumer sources in the context of restaurant endorsements. They used three age conditions – less than 30 years of age, 30 or more years of age, or an unknown number of years – to test the influence of age perception on brand evaluations. Their findings demonstrated that the ambiguity of the age of a product’s endorsers positively impacts the liking of the product. Interestingly, these authors found that consumers who view ambiguous endorsers in online recommendations had higher brand evaluations than consumers who viewed endorsers in advertisements that were not only similar in age to the consumer but also of similar gender to the consumers. An interesting finding of the current qualitative study is that the participants would believe a younger source more offline than online. The prevailing thought throughout the interviews was the notion that young adults were not motivated to post product recommendations. In John’s own words, Millennials are “lazy and don’t care about others enough to post stuff on Amazon.”

### Product Type

The participants in this study looked for deeper credibility cues, depending on the product. For example, Jane said she would seek additional information of recommenders if she were not buying a new product. Concerns with shipping quality, deceptive practices, and cost of time and money if the product did not perform as advertised were mentioned by many participants. Besides reading additional text-based eWOM, some suggested seeking visual eWOM from such sites as YouTube before making a decision. However, the lack of a visual standard (i.e., picture/video quality, audio quality, video length) was given as a reason for not using visual eWOM as a stand-alone information source. Robert put it this way: “I use YouTube
to see the service in use. But if I don’t have the time, it’s too long, or simply not what I want to see, then I won’t look at it. It is just quicker to read the [text only] reviews.” Another interesting pattern emerging from the data was the use of eWOM and then visual eWOM to become aware of local service-related companies, but consumers would turn to traditional WOM from friends and family before deciding to patronize a company. For example, Sarah would “look for photos on Yelp, to see portion sizes and quality of food,” after she heard about a restaurant on social media. She would then talk to her friends offline before she “tries out the restaurant with her sorority sisters.” This reoccurring situation leads to a notion of credibility confirmation of various modes of WOM presentation throughout the path to purchase.

**Buyer Readiness**

Buyer readiness is a marketing phrase that denotes where a consumer is during the process of making a purchase decision. There are typically six stages a consumer goes through before buying a product: product awareness, knowledge of its benefits, product interest, product preference, product conviction, and product purchase (Kotler and Keller 2012). Participants indicated that they aren’t overly concerned with the credibility of eWOM because they are in a motivated state to learn about the product (i.e., the product interest stage). They will read multiple reviews from a variety of sources. If the reviews (and ratings) converge, then they believe the product will live up to its claim and the source credibility “cancels out.” Some research suggests that consumers make credibility assessments based on the valence of a message. Schlosser (2005) found that readers of a negative message perceive the source as more intelligent than a positive source evaluating the same product. Also, some participants said they read multiple reviews to mitigate the influences of individual sources, while other participants viewed certain websites as a proxy for the credibility of an individual review source. Howard mentioned that he views Newegg, Revzilla, and other credible websites, where he feels the sources would be more knowledgeable than Amazon or eBay reviewers. Participants feel a lack of control in traditional WOM settings. Many friends and family members do not have knowledge as an expert on a broad range of products and services of interest to sample. These interested consumers also question the credibility of traditional WOM when they recommend a product in those cases where the participants are not in a buyer-ready stage. In other words, when participants feel like someone is pushing a product on them, they start to “tune out” the person.

**Conclusion**

The purpose of this study is to explore the assessment of source credibility in online and offline word of mouth. Source credibility refers to the believability of a message creator (Hovland and Weiss 1951). Applying an approach that includes both qualitative data and qualitative analysis, the research uncovered three themes that influence the assessment of source credibility: 1) the age of the source, 2) the type of product being recommended, and 3) the buyer readiness of the consumer. WOM differed from eWOM in the context of credibility in the creation phase of word of mouth. Based on the participants in this study, older adults (i.e., individuals 30 years of age and over) are perceived as posters of eWOM, while younger participants are more likely to create traditional WOM than eWOM. For certain product types (i.e., used, service/experiential products), eWOM built awareness, while visual eWOM bypassed the source and allowed the consumer to see what the product is capable of doing (see Table 6).
Table 6: Emerging Themes in Comparing WOM and eWOM

<table>
<thead>
<tr>
<th>Similarities</th>
<th>Source Age</th>
<th>Product Type</th>
<th>Buyer Readiness</th>
</tr>
</thead>
<tbody>
<tr>
<td>WOM and eWOM</td>
<td>Source age informs more expert comments and fewer trustworthiness or approachability comments</td>
<td>Both WOM and eWOM are used in concert toward a path to purchase</td>
<td>Both WOM and eWOM can be used when consumers are ready (pull strategy) and not ready (push strategy) to purchase</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Differences</th>
<th>Source Age</th>
<th>Product Type</th>
<th>Buyer Readiness</th>
</tr>
</thead>
<tbody>
<tr>
<td>WOM</td>
<td>Younger sources are perceived as more credible</td>
<td>Used to build prior purchase approval to lower potential cognitive dissonance for all product types</td>
<td>Low product interest; source credibility more overt due to social pressure</td>
</tr>
<tr>
<td>eWOM</td>
<td>Older sources are perceived as more credible</td>
<td>Used to build awareness and product knowledge for used and service/hedonic products</td>
<td>High product interest; multiple reviews and website reputation mitigate need for source credibility</td>
</tr>
</tbody>
</table>

In yet another context, traditional word of mouth was applied before making a final purchase decision. A future direction in this research stream would be to explore the path to purchase using various WOM presentations and conditions in which the path changes in both priority and magnitude. An interesting commonality between traditional WOM and eWOM suggest a low need for credibility when the participants were in a product interest stage of the buyer readiness process. In this qualitative study, the participants displayed a preference for a “pull consumer” strategy, while actively seeking recommendations for a product. Yet in traditional WOM, participants felt a lower locus of control due to a perception of having recommendations pushed on them by individuals, coupled with the additional social (e.g., family and/or peer) pressure to listen. Credibility assessments were not the concern when participants felt as though they were not in the product interest stage of the buyer readiness process. In eWOM contexts, however, the participants used multiple recommendation cues, as well as the reputation of the website, to mitigate the need to rely on the credibility of others.

This qualitative study will inform Essay Two and Essay Three on experiments designed to account for consumer buyer readiness, product type, and age effects. Each subsequent study will control for various potential buyer readiness levels within a subject pool of a major state university by following a push strategy of an unknown product or service. Using the same product with varied conditions will control for any product type effects such as those that emerged from the data analysis. These methods are used to control for buyer readiness and product type to ensure that potential subjects will not be systematically influenced by either
product difference or buying process stage. A single recommendation will be used to focus receiver attention on the attributes of the WOM or eWOM messages (e.g., source credibility). Multiple reviews would threaten the internal validity of the experiment by introducing alternative causes, such as repetition and source corroboration. No website brand will be given to guard against either positive or negative website brand associations that could influence the results. Age will be used as a covariate to eliminate age as a possible alternative cause of the results.

**EWOM VERSUS WOM CONCEPTUAL FRAMEWORK USING SOCIAL COMMUNICATION THEORY**

The Social Communication Model is a robust communication theory that explains variance in the effect of WOM versus eWOM on key marketing outcomes: attitude toward the message, attitude toward the product, and purchase intention. The simple presence of another person causes a communication process that may have the power of a subtle or substantial reaction (Naylor et al. 2012). When humans interact, an exchange of verbal and nonverbal communication occurs in order to establish a common understanding (Conrad and Poole 1998). Communication theory explains the nature of the communication process (Dainton et al. 2011). Specifically, theories enable a description of internal causes of outcomes and thus apply this understanding to other similar events (Stangor 2010). For example, there are theories that explain why teams fail to communicate other possible solutions (groupthink), when consumers seek reassurance after making a large purchase (cognitive dissonance), or why gas stations and retail firms display prices in cents and not whole dollars (framing theory; Cheung and Thadani 2012). Social Communication Theory is very useful when drawing comparisons. Sapienza et al. (2015) state that the theory is very useful in “its ability to act as a marker and accurately measure the theoretical distance traveled between two concepts, models, or theories being compared.” This theory will be used to empirically establish the relative difference between WOM and eWOM on purchase-related attitudes.

**USING SOCIAL COMMUNICATION THEORY TO INFORM THE MAIN EFFECT**

Essay One empirically investigated the relative effect of WOM versus eWOM on purchase-related attitudes. Based on the Social Communication Model, I posit that a change in method (i.e., from WOM to eWOM) serves to strongly change the perception of the communication process. Therefore, receivers in a WOM context would perceive a more dynamic social interaction, as well as experience higher consumer evaluations than those in an eWOM context. The source would appear more salient in a WOM exchange than in an eWOM exchange and therefore would wield a greater influence on consumer outcomes. The natural process of communicating is oral, face-to-face communication (Kotler and Keller 2012). WOM is transmitted in real time and space. These factors contribute to the source being more salient and real. Electronic word of mouth is more virtual reality (Walther 2011). At best, it is an imitation of WOM. Its written nature is more formal and more prone to misrepresentation (Berger and Iyengar 2013). The written context of an eWOM message can be crafted, revised, and edited by someone and sent by someone else in order to project an experience that might not be authentic (Walter 2011). Many of the individuals in the qualitative study mentioned they use a friend or family member’s sign-on information to buy products and post messages. Also, companies have been known to pay people or create computer programs to write fake eWOM messages (Kerr 2013). A synchronous/live channel allows WOM consumers to not only be more
involved but also more interactive in the communication effort than those using an asynchronous channel. This actual reality is informal, spontaneous, and engaging (Manning et al. 2014). The private nature of a WOM interaction opens to consumers the powerful perception of a personalized message that shares commonality with the source (Berger 2014; Joinson 2001). Berger et al. (2013) state that “communicating with just one other person may reduce self-presentation concerns and lead people to share more useful information because it encourages communicators to focus on their audience. The physical and psychological distance between the source and the audience creates skepticism among the audience members. The above factors independently and collectively influence the receiver’s interpretation of the helpfulness of the message. Social Communication Theory suggests that having more information (verbal and nonverbal) should provide the receiver a better picture to comprehend the presented information to determine a response (Daft and Lengel 1986). This finding persuasively indicates that WOM would be more impactful than eWOM (see Figure 6 for a conceptual model).

![Figure 6: Essay One Main Effect Hypotheses](image)

Thus,

Hypothesis 1: Participants in the WOM condition will have a higher attitude toward the message than those in the eWOM condition.

Hypothesis 2: Participants in the WOM condition will have a higher attitude toward the product than those in the eWOM condition.

Hypothesis 3: Participants in the WOM condition will have a higher purchase intention than those in the eWOM condition.

**TESTING MEDIATION**

Essay One addresses a second research question: What is the underlying process that accounts for the main effects of WOM and eWOM on purchase-related attitudes? To examine the intermediary effect of the Social Communication Model as a theoretical lens, the study selected reflective constructs of the source, channel, audience, and response (see Table 5). The following section describes the Social Communication Model’s prediction of the effect between the eWOM/WOM and the mediating constructs (see Figure 1 for the mediation model).
Social communication encompasses the process of transmitting information from an individual to influence the behavior of another individual or individuals (Hovland 1948; Cheung and Thadani 2012). The Social Communication Model analysis of the communication process focuses on the individual elements of that process: the source, the message, the channel, the audience, and the response (Lasswell 1948). The elements are more commonly stated in five questions: “Who? Says What? In Which Channel? To Whom? With What Effect?” (Lasswell 1948). The impact of traditional WOM versus eWOM on marketing outcomes is seen through relative variances in a) source perception (who), b) message interpretation (says what), c) information processing time (in which channel), d) perceived personalization (to whom), and e) overall effectiveness (with what effect); see Table 7.

Table 7: Social Communication Theory Elements

<table>
<thead>
<tr>
<th>Source (Who)</th>
<th>Communicator</th>
</tr>
</thead>
<tbody>
<tr>
<td>Message (Says What)</td>
<td>Content, topic, or point</td>
</tr>
<tr>
<td>Channel (How)</td>
<td>How message is transmitted</td>
</tr>
<tr>
<td>Audience (To Whom)</td>
<td>Receiver</td>
</tr>
<tr>
<td>Response (To What Effect)</td>
<td>Measure of effectiveness</td>
</tr>
</tbody>
</table>

The limited research examining WOM versus eWOM has found conflicting results because each study has focused on a single element of the communication process, rather than all of the social communication elements together (Cheung and Thadani 2012). Supporting a prior position that WOM may be more impactful than eWOM, Meuter et al. (2013) focused on the source of WOM/eWOM messages to determine consumers’ attitudes toward a restaurant and likelihood to eat at that restaurant. The results suggest that WOM consumers had a significantly higher attitude toward the restaurant and likelihood to eat at the restaurant than consumers who used eWOM. Supporting the position that WOM may not be more impactful than eWOM, Berger and Iyengar (2013) conducted a series of studies focused on the channel element that tested whether face-to-face oral communication (i.e., WOM) or instant messaging (i.e., eWOM) led consumers to recall more interesting products and brands. The results indicate that eWOM exhibits the potential to present more interesting products and brands than WOM. The authors suggest that the asynchronous functionality of the eWOM channel allows consumers to elaborate longer on products and brand messages than the synchronous, “top of mind” element of oral WOM. Higher recall tends to exhibit a positive association to higher consumer attitudes, purchase intentions, and sales (Kotler and Keller 2012) and therefore provides support to the position that eWOM may be more impactful than WOM or equally impactful. Therefore, an incorporation of the entire spectrum of social communication elements strengthens a more comprehensive examination of WOM/eWOM phenomena. Such a process would serve to provide an explanation of the ambiguous results found in the emerging study of WOM/eWOM effects. The following section will discuss each social communication element and how that element influences communication between individuals (also see Table 8).

**Source Effects**

Social Communication Theory suggests that WOM communications improve the credibility of a source (Lindsey-Mullikin and Petty 2011). A good first impression leads to a
positive emotion, which lowers persuasion-rejecting behaviors and leads to a more amiable audience (Eagly and Chaiken 1993). WOM’s visually processed information also tends to increase attitudes and is, therefore, more persuasive in that people really do believe what they see. In the presentation of the clear visual evidence of an observation or experience, an audience perceives the visual to be speaking for itself (McCabe and Castel 2008). Extant research suggests visuals do not require complex cognitive processing, which tends to bypass coping strategies of both working memory and a person’s persuasive knowledge (Myers-Levy et al. 1999). By being processed heuristically, people make fewer cognitive counterarguments and are more persuaded when seeing a person (Lurie and Mason 2007). Before a baby speaks, the young child can see and recognize. John Berger (1970) recognized this human element by stating that “seeing comes before words.” Therefore, on a human level, WOM may be perceived in a faster measure than eWOM. Scholars have shown that face-to-face interactions are perceived and comprehended more quickly because they are dually processed, in both imagery and semantics; while eWOM written messages are solely semantically processed (Stafford 1996; Childers and Jiang 2008).

Table 8: Constructs in a Social Communication Framework

<table>
<thead>
<tr>
<th>CONSTRUCTS</th>
<th>ELEMENTS OF SOCIAL COMMUNICATION FRAMEWORK</th>
<th>CITATIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Source</td>
<td>Perceived believability of the source of the communication increases persuasion</td>
<td>Berger 2014</td>
</tr>
<tr>
<td>Channel</td>
<td>The level of motivation during the communication effort influences persuasion</td>
<td>Spielmann et al. 2013</td>
</tr>
<tr>
<td>Audience</td>
<td>The audience’s perceived similarity to the source increases persuasion because it reinforces the receivers’ self-concept and helps them in their categorization of others</td>
<td>Burgoon et al. 2002</td>
</tr>
<tr>
<td>Response</td>
<td>The degree to which a communication effort is persuasive</td>
<td>Mudambi and Schuff 2010</td>
</tr>
</tbody>
</table>

Source variables refer to the notion that consumers are influenced by the characteristics of a message creator (Hovland and Weiss 1951). One of most influential and studied constructs of a source is credibility (Arndt 1967, Hamilton et al. 2014). Source credibility is the belief that the sender is knowledgeable through experience (Wiener and Mowen 1986). It is the notion that one is highly credible if he is not only an expert on the subject but also has friendly intentions, rather than commercial motivations (Wiener and Mowen 1986). In the traditional word of mouth, one can observe the eye contact, voice patterns, body language, and even perspiration level of a source to provide an indication of the source’s motives. In eWOM, the attributes of the source (e.g., familiarity, power, physical appearance, and attractiveness) are more covert, which
makes the source credibility more difficult to assess (Park and Lee 2009; Cheng and Ho 2015). Traditionally, WOM is predicted to have a higher level of credibility than eWOM, due to the observable attributes of the source.

Channel Effects

According to Social Communication Theory, face-to-face visual communication leads to increased attitudes and memory recall over solely verbal messages (Cohen et al. 2008). When people perceive visual stimuli, it triggers greater arousal, directs attention toward the image, and increases elaboration, which in turn influences decision-making and improves the likelihood that the visual will be remembered (Petty et al. 1983). Research suggests that with more arousal, people make initial judgments based on emotion, and then tend to justify their decision with logic (Pham 2007). The advertising field has long been using images to change attitudes through the use of high-valence emotions such as those triggered by sex, happiness, and fun (Eagly and Chaiken 1993). In fact, studies have shown that patients who could not experience feelings had a reduced ability to make rational decisions (Pham 2007). Channel variables refer to the level of synchronicity or live interaction between the source and audience. One of the benefits of traditional WOM is that one can engage with the source at the time of message creation to understand the context of a message to improve comprehension and meaning. With face-to-face communication, you can ask follow-up questions, you can ask for a demonstration, and you can see under what conditions the message was sent and intended. Engagement is the construct which reflects the channel variable. Studies have shown that having a synchronous/asynchronous channel can influence the level of interest (Berger et al. 2013), which in turn suggests a more engaging experience. Traditional WOM is predicted to have a higher level of engagement than eWOM due to the live, face-to-face nature of the interaction.

Audience Effects

One of the biggest disadvantages of eWOM is a need for a shared language and level of literacy to comprehend the message (Burgoon et al., 2002). The use of writing to state precisely what the source is experiencing can be lost to the receiver due to the different connotations of words and/or the different meaning/translations of the words. For example, the word *Nova* indicates the power and brilliance of an automobile, while *nova* in Spanish means “no going,” which would be the opposite of the intended use of the word (Russo et al. 1981). This confusion can happen with clear denotations of terms and intensifies in attempts to convey more abstract concepts such as emotion, humor, and sarcasm (Chiu et al., 2007). Kim and Gupta (2012) found that emotions used to dissuade consumers from liking a product actually raised evaluations toward the negatively reviewed product. With abstract perceptions, it may simply take too many words to describe a concept that would easily be understood face to face (Jiang and Benbasat, 2007).

The construct that most reflects the audience variable is commonality. Commonality is the notion that the recipient is similar to the source in certain aspects related to the message. Extant research has shown that people tend to be more persuaded by a message when the source is perceived to be similar to them (Brown and Reingen 1987). In contrast, when sources are perceived as dissimilar to the message recipient, then the message is not evaluated as favorably (Brown and Reingen 1987). Essleston and Griseri (2008) stated, “people trust other people, especially those ‘like themselves’.” For example, Burgoon et al. (2002) found that this
homophily increases persuasion because it reinforces the receivers’ self-concepts in the categorization of others. Traditional WOM is predicted to have a higher level of commonality than eWOM because the audience can search for more hemophilic cues in an offline interaction than an online interaction.

Response Effects

With less interaction than WOM, eWOM will be less impactful than WOM. One of the disadvantages of eWOM is that it has a greater chance of not being read and/or perceived. Today people perceive 34 gigabytes (approximately 100K words) outside of work daily, which is about 28% of the available words to read (Bohn and Short 2012). Due to the higher use and volume of eWOM via email, social media, blogs, and instant messaging, many eWOM messages go unattended (Chintagunta et al. 2010). One has to use even more thought and effort to craft a message that will stand out and not be lost within an online sea of virtual junk mail (Liu 2006).

The singular construct that reflects the response variable in the context of eWOM and WOM is helpfulness. Helpfulness is a multifaceted construct that seeks to understand the utility of a message. People want to know whether the information can aid in the decision-making process (Sussman and Siegal 2003; Mudambi and Schuff 2010). This is importantly distinct from information to entertain or remind people. In traditional WOM, messages tend to be more fleeting and less attended to than eWOM, where the audience can focus on the written message (Berger et al. 2013). More elaboration on a message increases the comprehension, recall, and effectiveness of the information presented (Petty and Cacioppo 1986). Also, helpfulness is a native term to eWOM messages and a more unnatural metric in a WOM interaction (Walther 2011). Therefore, eWOM is predicted to be more helpful than WOM.

Thus,

Hypothesis 4: WOM versus eWOM positively impacts (a) credibility, (b) engagement, and (c) commonality but negatively impacts (d) helpfulness.

Message Effects

Without the distractions and noise that may be encountered in a face-to-face exchange, eWOM messages may be better comprehended. Social Communication Theory posits that people will pay more attention to the content of a written message over an oral message. If writers do not craft a well-written message, then their self-image and reputation may be threatened by those who are confused by the message and tend to question the writer’s intelligence (Schlosser, 2005; Berger 2014). In the modern age, eWOM writers may neglect the proper use of grammar (Schindler et al. 2012). With the advancement of instant messaging, characteristics of text writing have migrated into other forms of eWOM writing, such as email, online reviews, and social media (Toder-Alon et al. 2014). Text writing is a form of shorthand language that conveys a message using an economy of letters and words (i.e., abbreviations, emoticons, and phrases) from one electronic device to one or many more (Toder-Alon et al. 2014). For example, the message “I have received your message, and I am on my way to you” has become “THX OMW).” The use of a subject, verb, and punctuation is no longer consistent in the United States (Schindler et al. 2012). Using social communication as the theoretical lens,
WOM messages are given a wider bandwidth for grammatical errors, which are less obvious in a face-to-face encounter.

This study will focus on this prevalent element of social communication by assessing consumers’ attitudes toward the message as a key outcome measure. Source credibility, channel, audience, and response elements are all predicted to have a positive impact on consumers’ impressions of a message, which may also impact other downstream outcome variables, such as actual purchase behavior. In this current study, the message content will not vary between WOM and eWOM conditions. The literature indicates that multiple impressions of diverse yet positive recommendations can lead to attitude change over and beyond the impact of a product message (Hovland et al. 1953). Therefore, this study will use a single product recommendation format to establish a foundational relative difference between WOM and eWOM. Future research will be conducted that will examine the critical or ideal point of multiple product recommendations.

All social communication mediating constructs will have positive impacts on purchase-related attitudes (see Figure 7 for mediating relationships proposed in Essay One the). Considerable evidence in source credibility literature suggests that increased levels of the perceived expertise of a source promote a higher persuasiveness of the message (Hovland and Weiss 1951; Park and Lee 2009; Cheung et al. 2012; Berger 2014). For example, Naylor et al. (2014) found that the perceived believability of a source significantly increases consumer attitudes and purchase intentions. Manning et al. (2014) stated that higher engagement significantly increases consumer attitudes and purchase intentions in consumers with regard to consumer contexts, business-to-consumer arenas, and business-to-business meetings. As for commonality, many studies have found such homophily to be associated with higher attitudes and purchase intentions (Solomon 2015). For example, Naylor et al. (2012) found that even the perceived commonality of an ambiguous source carried positive impacts on attitude toward the product measures. Their study categorized the age of the endorsers of a high-quality restaurant at three age levels – less than 30 years, 30 or more years, or an unidentifiable number of years – in order to test the influence on brand evaluations. Specifically, these authors found that consumers who view ambiguous endorsers in advertisements had higher brand evaluations than consumers who viewed endorsers in advertisements that were not only similar in age to the consumer but also of similar gender to the consumers. These results were mediated by a perceived commonality.

Finally, prior research has reinforced the basic premise that more helpful reviews impact consumers’ purchase-related attitudes. For example, Kim at al. (2012) found a direct relationship: the higher the perceived utility of an eWOM communication, the higher (positive valence message) the attitude toward the product and purchase intention; conversely, the study found that the lower the negative valence message, the lower attitude toward the product and purchase intention.

Thus,

Hypothesis 5: (a) Credibility, (b) engagement, (c) commonality, and (d) helpfulness will have a positive relationship with attitude toward the message.

Hypothesis 6: (a) Credibility, (b) engagement, (c) commonality, and (d) helpfulness will have a positive relationship with attitude toward the product.
Hypothesis 7: (a) Credibility, (b) engagement, (c) commonality, and (d) helpfulness will have a positive relationship with purchase intention.

**ESSAY ONE SUMMARY**

This essay defined and conceptualized both offline and online types of WOM. This essay discussed the overall types of consumer-to-consumer communication and its various forms, from face-to-face and telephone WOM communications to email and blog eWOM communications. A review of the literature provided themes and trends of word of mouth in the age of Web 2.0. The review found a large imbalance in research that focused on eWOM while virtually ignoring WOM research, either in isolated circumstances or in combination with eWOM. A qualitative study was then conducted to understand current consumers’ impressions of eWOM and WOM concepts and applications. Although the consumers did acknowledge increased usage of eWOM, they still exchanged product recommendations among others offline at a higher proportion than online. Three themes emerged from the data analysis (i.e., receiver demographics, product attributes, and buyer readiness) that distinguished WOM and eWOM in the minds of the consumer participants.

In conclusion, three themes will inform both the current quantitative studies and future studies within this research program. From the literature review and qualitative study, the Social Communication Theory will be used to develop the main effects and mediating process hypotheses. Therefore, the objective of Essay Two is to present social communication as the theoretical lens through which to test the relative differences between traditional WOM and eWOM on purchase-related attitudes. These attitudes will represent a) the attitude toward the message, b) the attitude toward the product, and c) the purchase intention, reinforced by source
credibility, channel engagement, audience commonality, and response helpfulness. Therefore, the relationship between eWOM/WOM and purchase-related attitudes will be tested, examined, and explained using social communication elements in a social communication framework.
ESSAY TWO: HAS EWOM CAUGHT UP TO WOM?

INTRODUCTION

United State consumers share over 3 billion brand mentions a day to other consumers (Keller and Fay 2012). Seventy-five percent of this word of mouth (WOM) communication occurs offline (Berger 2014). However, the vast majority of academic research on word of mouth focuses on online word of mouth communication (Lamberton and Stephen 2016). This offline/online WOM gap in the literature leaves marketing practitioners little insight to resolve a systemic concern. The current research examines both traditional offline word of mouth and online, electronic word of mouth (eWOM), to provide relevant managerial implications to influence consumer-to-consumer brand conversations.

One of the key questions marketing practitioners seek to know is “how to best allocate scarce marketing resources between eWOM and WOM. Even should WOM be more prevalent, a greater impact by eWOM would justify adopting the eWOM recommendations of academic scholars. The data to date is minimal and provides no difference as evidence to support either WOM or eWOM dominance. For example, some research shows no difference. Walther (2011) indicated that offline and online interactions do not differ on relational perceptions. Specifically, offline interactions were rated no significantly higher on interpersonal proximity measures then online interactions (Walther 2011). However, marketing strategy researchers’ findings indicate that eWOM is less impactful than WOM, due to a weaker tie between the communication parties (Kumar et al., 2010). The few studies that have addressed both WOM and eWOM communications had several limitations. These limitations included three basic types: 1) the use of a scenario-based stimuli to proxy for face-to-face interaction (Barasch and Berger 2014), 2) a lack of direct comparison between WOM and eWOM (Barasch and Berger 2014, Berger and Iyengar 2013, Lovett et al. 2013), and 3) the use of single-item, non-purchase-related attitudinal measures (Barasch and Berger 2014; Baker et al 2016; Berger and Iyengar 2013).

This study’s purpose is to provide empirical evidence to support and explain WOM or eWOM’s higher impact on important purchase-related attitudes while overcoming limitations of previous research studies. I propose a conceptual framework using the Social Communication Theory to investigate the underlying mechanism in order to provide the how and why of the relationship between the WOM type and important market-related outcomes. The two research questions to be addressed are as follows:

RQ 2: What is the relative impact of eWOM versus WOM on purchase-related attitudes?

RQ 3: Does Social Communication Theory mediate for the main effects of WOM and eWOM on purchase-related attitudes?

The contribution to the marketing literature is threefold. First, theoretically, I propose to empirically test a conceptual framework, based on the Social Communication Theory to explain the process giving rise to the differential impacts of WOM versus eWOM on consumer behavior. Second, a methodological, unique, systematic, experimental approach is developed for studying WOM versus eWOM. This approach would serve to increase external validity by operationalization through actual face-to-face interpersonal communication, rather than scenario-based, computer-mediated stimuli. Managerially, recommendations are identified to assist in
resource allocation towards the most effective types of word of mouth. For example, the results of an experimental study demonstrated that managers should invest in activities that influence WOM when the goal is to build awareness and liking. However, managers should invest in activities that influence eWOM when the goal is to drive purchase intentions and sales.

The conceptual framework is initially discussed in Essay One. Then, this paper discusses the methodology used to test the Social Communication Theory Conceptual Framework as follows. Next, the paper describes the experimental research design, procedure, and results sections. Finally, this paper provides managerial recommendations based on such results.

CONCEPTUAL FRAMEWORK—ESSAY ONE RECAP

In Essay One, the conceptual and operational differences between WOM and eWOM are described, leading to distinct conceptual definitions of the two similar, but still different, means of interpersonal communication:

Electronic word of mouth (eWOM) is defined as written product information transmitted through a public, asynchronous, computer-mediated-online channel from one consumer to another consumer (Hennig-Thurau et al. 2004).

Word of mouth (WOM) is defined as product information orally transmitted through a private, synchronous, non-computer-mediated-offline channel from one consumer to another consumer (Berger and Iyengar 2013).

The theoretical framework in which to predict both the differences between WOM and eWOM and the underlying communication process giving rise to those differences is based on Social Communication Theory. Social communication is the process of transmitting information from an individual to influence the behavior of another individual or individuals (Cheung et al. 2012). Social Communication Theory posits how the transfer of information (even the same information, i.e., WOM or eWOM) can influence how the message is perceived, interpreted, and evaluated (Lasswell 1948). Consequently, the expectations are that WOM would be higher on attitude toward the message, attitude toward the product, and purchase intentions (i.e., purchase-related attitudes), because it has a greater degree of social exchange than the computer-mediated eWOM exchange (please see Essay One for more information).

Thus,

Hypothesis 1: Participants in the WOM condition will have a higher attitude toward the message, than those in the eWOM condition.

Hypothesis 2: Participants in the WOM condition will have a higher attitude toward the product, than those in the eWOM condition.

Hypothesis 3: Participants in the WOM condition will have higher purchase intentions, than those in the eWOM condition.

Social Communication Theory suggests differences between WOM types on purchase-related attitudes by breaking the communication process down to its basic elements: the source,
the message, the channel, the audience, and the response (Lasswell 1948). Attitude toward the message is defined as the consumer’s overall evaluative judgment of the information communicated (MacKenzie et al. 1986). Attitude toward the product is defined as the consumer’s overall evaluative judgment of the product or service (Solomon 1992). Purchase intention is the likelihood a person will buy a product (Schiffman and Kanuk 2000).

Social Communication Theory posits that comparing WOM versus eWOM impacts purchase-related attitudes through their relative influence on the five elements (please see Essay One for more information). The constructs that reflect the social communication elements are Credibility (Source), Engagement (Channel), Commonality (Audience), and Helpfulness (Response). The message element is reflected by audiences’ attitude toward it. Credibility is defined as the perceived believability of the source (Park and Kim 2009). Engagement is defined as the level of motivation during the communication effort (Spielmann et al. 2013). Commonality is defined as the audiences’ perceived similarity to the source (Burgoon et al. 2002). Helpfulness is defined as the utility of the communication effort (Mudambi and Schuff 2010).

WOM is predicted to have a greater impact on credibility, engagement, and commonality than eWOM, due to the more socially dynamic exchange. That is, when the source is more credible, the interaction is more engaging, and the audience shares a similar experience; the communication effort has a more vivid impact on the receiver. Helpfulness is the only social communication element that does not predict WOM to be more impactful than eWOM. Helpfulness is a construct that is highly associated to eWOM communication (Mudambi and Schuff 2010). The asynchronous nature of the written text allows for longer exposure and elaboration, which leads to higher comprehension and helpfulness assessments (Berger et al. 2013). Therefore, WOM is predicted to be less impactful than eWOM on helpfulness. All social communication constructs are predicted to be positively related to the purchase-related attitudes (see Figure 8 for conceptual framework and predictions). Thus,

**Hypothesis 4:** WOM versus eWOM positively impacts (a) credibility, (b) engagement, and (c) commonality; but not (d) helpfulness

**Hypothesis 5:** (a) Credibility, (b) engagement, (c) commonality, and (d) helpfulness will have a positive relationship with attitude toward the message

**Hypothesis 6:** (a) Credibility, (b) engagement, (c) commonality, and (d) helpfulness will have a positive relationship with attitude toward the product

**Hypothesis 7:** (a) Credibility, (b) engagement, (c) commonality, and (d) helpfulness will have a positive relationship with purchase intentions

**METHODOLOGY**

The following research method was designed to overcome limitations of the scant prior research that restricted past investigations in comparing WOM and eWOM that in turn gave rise to threats of both construct and internal validity. The limitations of previous WOM/eWOM research fall into three areas: 1) use of a computer-based scenario for WOM stimuli, 2) no direct
WOM versus eWOM comparisons within the same study, and 3) the use of single-item, non-purchase-related attitudinal measures.

Figure 8: Essay One Summary of Hypotheses

**Limitation One: Computer-based WOM Stimuli**

One of the strong benefits of eWOM research is that one can more easily download data from the online marketplaces or create realistic eWOM messages for a large sample experimental study. However, WOM is not as accessible or as easy to administer as eWOM, as the number of observations increase. WOM is viewed as more of a phenomenon to be studied through qualitative methods, while eWOM is viewed more of a phenomenon to be studied through quantitative methods (Berger 2014). This has led to a dominance of eWOM articles being published, as opposed to WOM only, or WOM/eWOM articles (see Table 1). One solution to the study of WOM is the use of computer-based scenario stimuli to represent the face-to-face interaction (Barasch and Berger 2014). The substantive problem with this approach is that a computer screen loses much of the non-verbal information richness that a receiver can use to evaluate the communication effort (i.e., the credibility, engagement, commonality, and helpfulness) in an actual WOM situation. Many factors that are present in a face-to-face
exchange are lost or greatly reduced when reading off a computer screen, such as the tone of the delivery, the enthusiasm of the source, and the sensory inputs of the actual interaction.

In these research settings, the computer-based WOM stimuli ask participants to imagine scenarios in which they are communicating with others (see Table 9). For example, Meuter et al. (2013) used several imagined scenarios to different WOM conditions, such as instructing the participants to imagine they are at a dinner planned with close friends, and Baker et al. (2016) relied on WOM data that asks participants if they can recall a past WOM conversation (see Table 9 for additional examples). A potential limitation of this approach is that it is unknown whom the participants imagined (live or fictitious); it is also unknown what non-verbal information the participants imagined in the discussion. Is it the most recent or the most impactful memory? Do they remember just the verbal details or both verbal and non-verbal details?

Table 9: Examples of Computer-Based WOM Stimuli (Meuter et al. 2013)

<table>
<thead>
<tr>
<th>Condition</th>
<th>Imagined Scenario</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interpersonal WOM</td>
<td>The participants were told to imagine they are talking to “three close friends”</td>
</tr>
<tr>
<td>Small Group on Facebook</td>
<td>The participants were told to imagine they are talking to “three Facebook friends”</td>
</tr>
<tr>
<td>Medium Group on Facebook</td>
<td>The participants were told to imagine they are talking to “six Facebook friends”</td>
</tr>
<tr>
<td>Limited Yelp Search</td>
<td>The participants were told to imagine they read 15 Yelp reviews</td>
</tr>
<tr>
<td>Extensive Yelp Search</td>
<td>The participants were told to imagine they read 50 Yelp reviews</td>
</tr>
<tr>
<td>Small Number of Consumer Testimonials</td>
<td>The participants were told to imagine they read three customer testimonials on a firm website.</td>
</tr>
<tr>
<td>Medium Number of Consumer Testimonials</td>
<td>The participants were told to imagine they read 10 customer testimonials on a firm website.</td>
</tr>
</tbody>
</table>

As a result, the computer-based method limits our understanding of how actual face-to-face WOM communication impacts consumer behavior. This current study is designed to overcome this limitation by presenting live WOM messages through a source in which the audience can perceive the voice, appearance, and body language in a private location under strictly controlled situations. Figure 9 illustrated the differences between stimuli – eWOM written text versus personal interaction for WOM. The following script is used to maintain message equivalence across conditions:

“I saw the funniest movie of the year recently. It’s called, “Before We Graduate,” and it’s a bucket list full of the stuff you got to do before you graduated college. The story makes it easy to put yourself into those embarrassing situations you may have been through or had a friend go through. A group of us watched it and we couldn’t stop laughing. If you are looking for a good laugh, I highly recommend this movie.”

Participants seeing the eWOM stimuli engaged in an online survey process in a controlled research environment at an on-campus behavioral lab, located at a major southern
state university. The facility has a network of computer workstations in a private, dedicated area that can accommodate up to 26 individuals at a time. Each participant was assigned to one of the partitioned computer stations. Once the participants were seated, they were directed to view the computer screen, in which all experimental materials were presented. Participants then saw the stimuli regarding an online review of a movie. They were told that they came across the review as they were surfing the web. No source or date information were provided. After the presentation of the stimuli, attention check questions were presented, followed by the Social Communication Theory and purchase-related measures, manipulation check questions, and finally a demand check question. Once the responses were recorded, each participant exited out of the main door in which they entered.

![Image: Graphic Depiction of Message Presentation]

Note: This current study is designed to present WOM messages through a live source in which the audience can perceive the voice, face, appearance, and body language and not another electronic computer device similar to eWOM.

Figure 9: Graphic Depiction of Message Presentation

Participants in the WOM condition also used the research lab environment, but instead entered the lab one at a time and interacted with a student volunteer trained to deliver the WOM script. After giving personal instructions and under the guise of waiting for a spot to become available, the student volunteer enacted the script to recommend a movie. The participant could ask questions and interact with the student volunteer freely. Upon completion of the script, a lab assistant escorted each participant to a computer in which attention check questions were presented, followed by the Social Communication Theory and purchase-related measures, manipulation check questions, and finally a demand check question. After the responses had
been recorded, each WOM participant exited out of a rear door to avoid contact with other participants taking or waiting to start the study.

Student volunteers delivering the WOM condition were varied across lab sessions to address the common method bias of using one single source. This allows for a stronger differentiation of WOM from eWOM by keeping the essence (i.e., face-to-face interaction versus computer-mediated communication) of each as preserved.

**Limitation Two: No Direct WOM versus eWom Comparisons Within The Same Study**

Another limitation is the predominance of studies where WOM and eWOM are examined in separate studies, i.e., no direct comparison (Barasch and Berger 2014, Berger et al. 2013, Lovett et al. 2013). Absent direct comparisons, the relative effect of WOM versus eWOM cannot be determined. This method allows for both WOM and eWOM to be examined within the same study in a one-way between-subjects experiment. The message for both WOM and eWOM will be the same (see page 27). In the WOM condition, the message will be transmitted through a live person, face-to-face. After the presentation of the message, the individuals are escorted to a computer to collect the measures. In the eWOM condition, the same message will be transmitted using a computer screen. The same measures will be collected on the computer after the electronic presentation of the message, enabling the researcher to make direct comparisons. This method controls for other factors so as to provide as similar a process as possible. Factors such as source familiarity, push or pull information acquisition, product type, message impressions, and message valence. This study maintains an unfamiliar source, a push information strategy, an experience product type, one message impression, and a positive message valence. The condition equivalence minimizes any confounds arising from administering the two formats.

**Limitation Two: The Use of Single-Item Measure**

The final limitation of previous studies was the use of single-item measures (see Table 10 for examples). (Barasch and Berger 2014; Baker et al. 2016; Berger et al. 2013). These single-item measures do not account for measurement error (i.e., the difference in measuring a construct’s “true score” versus the observed score). Measurement error can be due to random error, which is unknown, or non-systematic variance that is difficult to predict, but in all cases acts as a buffer between the true score and the observed score (Bollen 2002). Random error is non-consistent and is minimized when assessed through multiple items (Bollen 2002). The second source of measurement error is from systematic sources that may introduce a bias threatening construct validity (Hair at al. 2010). Multi-item scales are a method of improving construct validity by increasing the degree the item is measuring to the level of what it is supposed to be measuring. The use of a single-item measure severely limits the ability to limit this type of systematic measurement error. The result is a strong preference for the use of multi-item sets of measures to represent the constructs of interest as an approach to improve construct validity. Examples of previous studies using single-items to measure constructs can be seen in Table 10. The multi-item measures used for each construct are detailed in the following section.
EXPERIMENTAL DESIGN, SAMPLE, AND MEASURES

This study employs a single factor (WOM versus eWOM) experimental design. The eWOM, as described earlier, is displayed on a computer screen, while the WOM is delivered from a student “confederate,” one participant at a time. Both sets of respondents will engage in the same data collection process, through which construct measures will be recorded using a computerized, data collection process.

Table 10: Examples of Single-Item Measures found in eWOM Literature

<table>
<thead>
<tr>
<th>Article</th>
<th>Single-Item</th>
<th>Measure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baker et al. 2016</td>
<td>How likely is it that you will purchase the brand or buy something from that company, based on what you heard from other people in that conversation?</td>
<td>Purchase Intentions</td>
</tr>
<tr>
<td>Meuter et al. 2013</td>
<td>My attitude toward Café Max could be described as (good...bad).</td>
<td>Attitude Toward the Product</td>
</tr>
<tr>
<td>Meuter et al. 2013</td>
<td>Rate how much trust you have in the WOM received.</td>
<td>Trust</td>
</tr>
<tr>
<td>Barasch and Berger 2014</td>
<td>How likely are you to share this information with the person/people with whom you are communicating?</td>
<td>Willingness to Share</td>
</tr>
</tbody>
</table>

Ninety-three participants from a subject pool at a major state university were recruited to participate in the study, administered in an on-campus behavioral research lab. The sample contained 47 males and 43 females with two participants choosing not to disclose their gender identification. The average age of the total sample was 21.70 years old with the highest percentage of the males (24%) being 21 years of age and the highest percentage of females (17%) being 22 years of age. College students were deemed an appropriate population given their access, use, and fluency with both eWOM and WOM methods. In fact, 97% of Millennials in the U.S. own a computer, 94% own a mobile phone, and 34% use the internet as their main source of information acquisition (Mangold and Smith 2012).

WOM and eWOM will be operationalized using the procedure previously described. The context of the study is a single movie review, since it is very appropriate for both WOM and eWOM, and is a familiar topic among younger participants. Online consumer reviews are “the most widely used of the existing eWOM formats” (East et al. 2007). In addition, media and entertainment have been found to be one of the most talked about products online (East et al. 2007). Kimmel et al. (2014) stated that “younger people (aged 13-17 years) transmit proportionately more WOM online (19%) than each successive category of older consumers, with 60- to 69-year-olds engaging in the lowest percentage of online WOM (3%). The use of a single review is used to establish a baseline measure of consumer response to WOM/eWOM.
communications and follows a call for researchers to disaggregate eWOM/WOM stimuli (King et al. 2014) “to better understand how receivers are influenced by WOM.” Past research has shown that multiple impressions can lead to attitude change over and beyond the impact of the product message (Hovland et al. 1953). Therefore, this study will use a single product recommendation format to establish the foundational relative difference between WOM and eWOM. One area for future research is to examine the critical or ideal point of multiple product recommendations.

The three purchase-related outcomes in this study are attitude toward the message, attitude toward the product, and purchase intentions (see Table 11 for individual items). These constructs were selected for their scope across both attitudes and intentions. Attitude toward the message is defined as the consumer’s overall evaluative judgment of the information communicated (MacKenzie et al. 1986), which is the product review itself. The responses to the three-item attitude toward the message measure were adapted from Lee and Aaker (2004). Attitude toward the product is defined as the consumer’s overall evaluative judgment of the product or service (Solomon 1992). In this context, the product/service is a movie. The responses to the 3-item attitude toward the product measure, adapted from Lee and Aaker (2004). Purchase intention is the likelihood a person will buy a product (Schiffman and Kanuk 2000). The responses to the 4-item measure, adapted from Grewal et al. (1998).

Four constructs from Social Communication Theory (credibility, engagement, commonality, and helpfulness -- see Table 12 for individual items) were used as the mediating factors in the conceptual model. Credibility is the belief that the sender is knowledgeable and amiable (Wiener and Mown 1986). The three-item credibility measure was adapted from Ohanian (1990). Engagement refers to the active participation of an individual (Greenwald and Leavitt 1984, Spielman et al. 2013). Active participation refers to the high level of motivation and effort (Petty and Cacioppo 1986). The 2-item engagement measure was adapted from Li et al. (2000). Commonality is defined as congruity, a match based on perceived likeness or similarity between two or more people, such as the source of a product recommendation and an audience. The 6-item commonality measure was adapted from Burgoon et al. (2002). Helpfulness is a measure of the response to information (Mudambi and Schuff 2010). In the context of a product recommendation, helpfulness is used to indicate the utility of a message to aid consumers in their decision-making process (Sussman and Sielgal 2003). A helpful product recommendation is one that is adequate, understandable, novel, useful, relevant, and persuasive in influencing a person’s attitude toward the product or service. The 2-item helpfulness measure was adapted from Connors et al. (2011).

RESULTS

Data Quality Tests

The first step is to assess the reliability of the multi-item constructs to ensure adequate construct reliability. The purchase-related attitudes demonstrated high reliability with Cronbach’s Alpha scores, about 0.80. Acceptable reliability scores should be 0.70 and above (Hair et al. 2010). Attitude of the message had a Cronbach’s Alpha of .79, attitude toward the product had a Cronbach’s Alpha score of 0.91, and purchase intentions had a Cronbach’s Alpha score of 0.89 (see Table 11). Similarly, all of the social communication constructs also exhibited high levels of reliability. Credibility had a Cronbach’s Alpha of 0.80, engagement had a
Cronbach’s Alpha of 0.83, commonality had a Cronbach’s Alpha score of 0.85, and helpfulness had a Cronbach’s Alpha score of 0.90 (see Table 12). With all constructs demonstrating adequate reliability, summated scale measures were calculated for each construct to be used in the analysis. Table 13 provides the descriptive statistics for both sets of constructs.

Table 11: Dependent Measures: Purchase-Related Outcomes

<table>
<thead>
<tr>
<th>Construct Basis</th>
<th>Definition and Operational Measures</th>
<th>Cronbach’s Alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attitude Toward the Review</td>
<td>Definition: The consumer’s overall evaluative judgment of the information communicated (MacKenzie et al. 1986)</td>
<td>0.93</td>
</tr>
<tr>
<td>(Lee and Aaker 2004)</td>
<td>Measures: My attitude toward the movie review is primarily: (7-Point Semantic Differential Scale)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1= Unfavorable / 7 = Favorable</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1 = Bad / 7 = Good</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1 = Negative / 7 = Positive</td>
<td></td>
</tr>
<tr>
<td>Attitude Toward the Movie</td>
<td>Definition: The consumers’ overall evaluative judgment of the product or service.</td>
<td>0.91</td>
</tr>
<tr>
<td>(Lee and Aaker 2004)</td>
<td>Measures: My attitude toward the movie is primarily: (7-Point Semantic Differential Scale)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1= Unfavorable / 7 = Favorable</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1 = Bad / 7 = Good</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1 = Negative / 7 = Positive</td>
<td></td>
</tr>
<tr>
<td>Purchase Intentions</td>
<td>Definition: The extent to which a firm’s marketing mix decision or action is based on involvement of a wide range of managers across functions.</td>
<td>0.89</td>
</tr>
<tr>
<td>(Grewal et al. 1998)</td>
<td>Measures (1 = strongly disagree, 7 = strongly agree):</td>
<td></td>
</tr>
<tr>
<td></td>
<td>I would like to see this movie.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>I would consider this movie.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>I would pay money to see this movie.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>I would watch this movie with my friends.</td>
<td></td>
</tr>
</tbody>
</table>

Next, the study assessed the effectiveness of the manipulation checks. Before performing a comparison between the two WOM stimuli, an analysis was performed to ensure that the manipulation operated as intended. Two questions were used to reflect the conditions of face-to-face word of mouth versus online electronic word of mouth. The first question measured the actual format of the communication process (“I was able to see the recommender’s face,”) while the second measured the degree of personal interaction (“If I wanted, I could have a conversation with the recommender,”). These questions were displayed in a randomized order, which was summated with a correlation of .76. Higher mean scores on the summated measure indicated a higher perceived face-to-face communications (i.e., WOM), while a lower mean score would suggest a perceived online communication (eWOM). The manipulation was successful with the two groups having statistically significant differences (F= 182.24; p = 0.00). Participants in the
WOM condition had a higher perceived face-to-face interaction (M=6.28) than those in the eWOM condition (M=2.92).

Table 12: Social Communication Mediating Measures

<table>
<thead>
<tr>
<th>Construct Basis</th>
<th>Definition and Operational Measures</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Credibility (Ohanian 1990)</td>
<td>Definition: The belief that the sender is knowledgeable and affable (Wiener and Mowen 1986) &lt;br&gt;Measures: How strongly do you agree or disagree with each of the following statements: &lt;br&gt;(1=strongly disagree, 7=strongly agree) &lt;br&gt;· I had a positive first impression of the recommender. &lt;br&gt;· The recommender seems nice. &lt;br&gt;· The recommender seems approachable.</td>
<td>0.80</td>
</tr>
<tr>
<td>Engagement (Li et al. 2000)</td>
<td>Definition: The active participation (i.e., motivation, involvement, and effort) of an individual (Petty and Cacioppo 1986, Spielmann et al. 2013). &lt;br&gt;Measures: (7-Point Semantic Differential Scale) &lt;br&gt;· How interested were you in the movie? &lt;br&gt;(1=Not Interested At All, 7=Very Interested) &lt;br&gt;· How motivated were you in learning about the movie? &lt;br&gt;(1=Not Motivated At All, 7=Very Motivated)</td>
<td>0.83</td>
</tr>
<tr>
<td>Commonality (Burgoon et al. 2002)</td>
<td>Definition: The perceived similarity, between two or more people (Brown and Reingen 1987). &lt;br&gt;Measures: How strongly do you agree or disagree with each of the following statements: &lt;br&gt;(1=strongly disagree, 7=strongly agree) &lt;br&gt;· I have a lot in common with the movie recommender. &lt;br&gt;· I can see myself hanging out with the recommender. &lt;br&gt;· I have a lot in common with people that frequent this type of movie. &lt;br&gt;· The recommender would fit into my circle of friends. &lt;br&gt;· The recommender is the same age as I am. &lt;br&gt;· Overall, I felt that the recommender is similar to me.</td>
<td>0.85</td>
</tr>
<tr>
<td>Helpfulness (Connors et al. 2011)</td>
<td>Definition: The utility of a message to aid consumers in their decision-making process (Sussman and Sielgal 2003). &lt;br&gt;Measures: How strongly do you agree or disagree with each of the following statements: &lt;br&gt;(1=strongly disagree, 7=strongly agree) &lt;br&gt;· The information provided was persuasive. &lt;br&gt;· The information provided was convincing.</td>
<td>0.90</td>
</tr>
</tbody>
</table>
Table 13: Descriptive Statistics for Essay Two Measures

<table>
<thead>
<tr>
<th>Construct</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attitude Toward the Review (AM)</td>
<td>5.46</td>
<td>1.10</td>
</tr>
<tr>
<td>Attitude Toward the Product (AP)</td>
<td>5.32</td>
<td>1.12</td>
</tr>
<tr>
<td>Purchase Intentions (PI)</td>
<td>5.30</td>
<td>1.20</td>
</tr>
<tr>
<td>Credibility (CR)</td>
<td>5.97</td>
<td>0.99</td>
</tr>
<tr>
<td>Engagement (EN)</td>
<td>4.36</td>
<td>1.39</td>
</tr>
<tr>
<td>Commonality (CR)</td>
<td>4.43</td>
<td>0.90</td>
</tr>
<tr>
<td>Helpfulness (HP)</td>
<td>5.24</td>
<td>0.98</td>
</tr>
</tbody>
</table>

**Main Effect: Differences between WOM and eWOM**

The effects on the three purchase-related measures were first assessed using Multivariate Analysis of Variance (MANOVA), which revealed a significant multivariate result (Wilks’ $\lambda = .95; F = 6.53; p = .000$). Analysis of Variance (ANOVA) was then used to test for differences between groups for each purchase outcome separately. For H1, attitude towards the message had a significant difference between WOM and eWOM ($F(1, 92) = 11.705, p = .001$), with attitude towards the message was higher in the WOM condition ($M = 5.82$) than those in the eWOM condition ($M = 5.08$). This result supports H1.

In assessing H2, the attitude toward the product in the WOM condition was significantly higher ($M = 5.75$) than those in the eWOM condition ($M = 4.87$); ($F(1,92) = 16.93, p = .001$). This result supports H2. For H3, while the WOM condition was higher for purchase intentions ($M = 5.50$) than the eWOM condition ($M = 5.09$, this difference was not statistically significant ($F(1, 92) = 2.70, p = .10$). As a result, H3 is not supported. These analyses provide mixed responses to the question of the relative difference between eWOM and WOM on purchase-related attitudes (see Figure 10). The findings provide evidence that WOM has a significantly higher impact on consumer attitudes (i.e., attitude toward the message and attitude toward the product) than eWOM (see Table 14 for Group Means). However, this effect may not be the case
for consumer’s purchase intentions. The results indicate that eWOM is no significantly different than WOM on purchase intentions.

This study empirically establishes that WOM is more impactful than eWOM on consumer attitudes, using ecologically sound methods. While results of this study showed that WOM is more useful for increasing product liking and perhaps awareness than eWOM, it found no significant differences with regards to purchase intentions. One possible reason for this non-significant effect could be due to the notion that purchase intentions are a downstream measure from consumer attitudes. A consumer might like a product or service without an intention to buy a product. The data provided some insight to resource allocation that includes a distinct WOM strategy, separate from an eWOM strategy. As a result, developing programs that encourage, promote, and/or share positive WOM recommendations would be useful should a firm’s strategy be to increase liking or awareness of a product. Due to the fact that WOM is not significantly superior to eWOM recommendations on purchase intention measures, a program to encourage, promote, and/or share eWOM virally may be more cost effective than a WOM campaign to increase sales conversion.

This research indicates that there may be a better way to maximize resource allocation by using distinct, but complementary, marketing efforts. The research findings suggest WOM communication may be more appropriate for increases consumer attitudes, while eWOM

Figure 10: Essay Two Results - Main Effects
communication may be more helpful for increasing purchase intentions. Overall, this research provides managerial implications into marketing activities that can lead to distinct, but complementary, eWOM and WOM marketing plans.

Table 14: Essay Two Main Effect Group Means

<table>
<thead>
<tr>
<th>Group</th>
<th>Mean</th>
<th>Std. Error</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attitude Toward the Message</td>
<td></td>
<td></td>
</tr>
<tr>
<td>WOM</td>
<td>5.822</td>
<td>.152</td>
</tr>
<tr>
<td>eWOM</td>
<td>5.081</td>
<td>.155</td>
</tr>
<tr>
<td>Attitude Toward the Product</td>
<td></td>
<td></td>
</tr>
<tr>
<td>WOM</td>
<td>5.752</td>
<td>.150</td>
</tr>
<tr>
<td>eWOM</td>
<td>4.867</td>
<td>.154</td>
</tr>
<tr>
<td>Purchase Intentions</td>
<td></td>
<td></td>
</tr>
<tr>
<td>WOM</td>
<td>5.181</td>
<td>.173</td>
</tr>
<tr>
<td>eWOM</td>
<td>4.850</td>
<td>.17</td>
</tr>
</tbody>
</table>

**Mediation Analyses**

Mediation provides the process of “why” and “how” a cause and effect happens. A Mediator (M) is a third construct that links a cause (X) and an effect (Y); M is the conduit through which X impacts Y (Stangor 2010; see Figure 11). Partial mediation occurs if M accounts for only some of the relationship between X and Y (Baron and Kenny 1986), while full mediation occurs when M accounts for all of the relationship between X and Y (Baron and Kenny 1986). The classic mediation process consists of a four step approach: Step 1) assess X → Y the ensure that path c’ is significant; Step 2) assess X → M to ensure that path a is significant (i.e., X is related to M); Step 3 assess M → Y to ensure that M does have a significant relationship to Y; and finally, Step 4) assessing X → Y (controlling for M) where path c’ is found to be significant (indicating partial mediation) or insignificant (indicating full mediation).

Preacher and Hayes (2008) advocates a more direct approach in which the mediation process is determined in terms of the indirect effects of the complete mediating path (i.e., X→M→Y) and not a set of logical steps. Hayes (2009) criticizes the Baron and Kenny (1986) approach because simulations indicate that the method is low in power and may not detect direct effects when these exist. Additionally, Step 1 may not apply to all mediation models. For example, cases in which the mediator suppresses the influence of X on Y before it is included in Step 2 would not be considered for mediation testing, since they would not show the X → Y relationship (Step 1). Thus, the mediation approach in this study will follow the Preacher and Hayes (2008) method and assess mediation by examining both the total indirect effect for each outcome measure and the direct path controlling for M to determine full or partial mediation.

The hypotheses related to the mediating impacts of the four social communication constructs (H4, H5, H6, and H7) were tested using the PROCESS approach (Hayes 2012). This
methodology has become widely used, due to its flexibility in estimating a wide range of model specifications representing moderation, mediation, or even the combination of moderation/mediation effects. One of its substantive advances is the use of a bootstrapping technique to directly assess the significance of the indirect effects (Stahl et al. 2012). This technique uses repeated sampling of the original sample with replacement (e.g., this study used 1000 samples from resampling) to provide an empirical estimate of the sampling distribution of the indirect effects (Hayes 2012). Once a significance level is specified, examination of the confidence interval (95% in this study) then reveals whether the inference can be made that the result is significantly different from zero, if zero is not within the lower and upper confidence interval. The test of mediation will follow a three-step approach. The first step is to test the effects of WOM/eWOM on the social communication mediating constructs. The second step tests the effects of the social communication mediating constructs on the purchase-related outcomes. If there a significant finding in steps one and two, then there is evidence of a mediating process. Finally, step 3 examines the full or partial mediation of all of the social communication constructs. Step 3a tests the total conditional indirect effects of WOM/eWOM on the purchase-related outcomes, as transmitted through all of the social communication constructs in parallel. Step 3b tests the direct effect of WOM/eWOM on the purchase-related outcomes controlling for the mediating constructs. If the direct effect is no longer significant in the presence of the social communication constructs, then that would suggest full mediation (Hair et al. 2010). If the direct effect is still significant in the presence of the mediating constructs, then that would suggest partial mediation (Hair et al. 2010).

Therefore, before the indirect effect is assessed, the component paths will be examined. In Step 1 the first set of paths tests Hypothesis H4, which involves the impact of WOM/eWOM on each of the social communication constructs (see Table 15). H4 predicted that WOM versus eWOM results in higher values of the social communication-based constructs: (a) credibility, (b) engagement, and (c) commonality. These hypotheses are supported, since there were significant and positive paths from WOM/eWOM to (H4a) credibility ($\beta = .48$, $p < .05$), (H4b) engagement...
Table 15: Overview of Hypotheses of Social Communication Mediation

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Path</th>
<th>Beta</th>
<th>Significance (p = )</th>
<th>Supported</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Step 1: Effects of WOM/eWOM on Social Communication Mediating Constructs</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>H4a</td>
<td>WOM/eWOM to Credibility</td>
<td>0.82</td>
<td>.000</td>
<td>√</td>
</tr>
<tr>
<td>H4b</td>
<td>WOM/eWOM to Engagement</td>
<td>0.72</td>
<td>.012</td>
<td>√</td>
</tr>
<tr>
<td>H4c</td>
<td>WOM/eWOM to Commonality</td>
<td>0.43</td>
<td>.021</td>
<td>√</td>
</tr>
<tr>
<td>H4d</td>
<td>WOM/eWOM to Helpfulness</td>
<td>0.42</td>
<td>.037</td>
<td>X</td>
</tr>
<tr>
<td><strong>Step 2: Effects of Social Communication Mediating Constructs on Purchase-related Outcomes</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>H5a</td>
<td>Credibility to Attitude Toward Message</td>
<td>0.11</td>
<td>.210</td>
<td>X</td>
</tr>
<tr>
<td>H5b</td>
<td>Engagement to Attitude Toward Message</td>
<td>0.22</td>
<td>.001</td>
<td>√</td>
</tr>
<tr>
<td>H5c</td>
<td>Commonality to Attitude Toward Message</td>
<td>0.24</td>
<td>.007</td>
<td>√</td>
</tr>
<tr>
<td>H5d</td>
<td>Helpfulness to Attitude Toward Message</td>
<td>0.46</td>
<td>.000</td>
<td>√</td>
</tr>
<tr>
<td>H6a</td>
<td>Credibility to Attitude Toward the Product</td>
<td>0.06</td>
<td>.940</td>
<td>X</td>
</tr>
<tr>
<td>H6b</td>
<td>Engagement to Attitude Toward the Product</td>
<td>0.18</td>
<td>.014</td>
<td>√</td>
</tr>
<tr>
<td>H6c</td>
<td>Commonality to Attitude Toward the Product</td>
<td>0.22</td>
<td>.032</td>
<td>√</td>
</tr>
<tr>
<td>H6d</td>
<td>Helpfulness to Attitude Toward the Product</td>
<td>0.44</td>
<td>.000</td>
<td>√</td>
</tr>
<tr>
<td>H7a</td>
<td>Credibility to Purchase Intentions</td>
<td>0.13</td>
<td>.549</td>
<td>X</td>
</tr>
<tr>
<td>H7b</td>
<td>Engagement to Purchase Intentions</td>
<td>0.54</td>
<td>.000</td>
<td>√</td>
</tr>
<tr>
<td>H7c</td>
<td>Commonality to Purchase Intentions</td>
<td>0.35</td>
<td>.001</td>
<td>√</td>
</tr>
<tr>
<td>H7d</td>
<td>Helpfulness to Purchase Intentions</td>
<td>0.05</td>
<td>.635</td>
<td>X</td>
</tr>
<tr>
<td><strong>Step 3a: Conditional Indirect Effects of WOM/eWOM on Purchase-related Outcomes</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Path</td>
<td>Beta</td>
<td>Significance (95% CI)</td>
<td>Mediation Supported</td>
<td></td>
</tr>
<tr>
<td>WOM/eWOM ➔ SC ➔ Attitude Toward Message</td>
<td>0.54</td>
<td>.2097 to .9267</td>
<td>√</td>
<td></td>
</tr>
<tr>
<td>WOM/eWOM ➔ SC ➔ Attitude Toward Purchase</td>
<td>0.42</td>
<td>.1106 to .7968</td>
<td>√</td>
<td></td>
</tr>
<tr>
<td>WOM/eWOM ➔ SC ➔ Purchase Intentions</td>
<td>0.62</td>
<td>.2306 to 1.102</td>
<td>√</td>
<td></td>
</tr>
<tr>
<td><strong>Step 3b: Conditional Direct Effects of WOM/eWOM on Purchase-related Outcomes</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Path</td>
<td>Beta</td>
<td>Significance (95% CI)</td>
<td>Full or Partial Mediation</td>
<td></td>
</tr>
<tr>
<td>WOM/eWOM ➔ Attitude Toward Message</td>
<td>.19</td>
<td>-.1218 to .5090</td>
<td>Full</td>
<td></td>
</tr>
<tr>
<td>WOM/eWOM ➔ Attitude Toward Product</td>
<td>.46</td>
<td>.1071 to .8245</td>
<td>Partial</td>
<td></td>
</tr>
<tr>
<td>WOM/eWOM ➔ Purchase Intentions</td>
<td>-.29</td>
<td>-.6418 to .0664</td>
<td>Full</td>
<td></td>
</tr>
</tbody>
</table>
Hypothesis 4d predicted a negative path from WOM/eWOM to helpfulness, and this was not supported. The results were opposite to the predicted outcome, in that there was a positive path to helpfulness ($\beta = .42, p = .04$).

Step 2 was to examine the remaining pathways from the social communication constructs to each of the outcome measures (see Table 15). Credibility did not exhibit a significantly positive path for any of the three purchase-related attitudes: H5a ($\beta = .11, p > .05$), H6a ($\beta = .06, p > .05$) and ($\beta = .11, p > .05$). Thus, H5 is partially supported; although (H5a) credibility was not supported ($\beta = .11, p > .05$), yet (H5b) engagement ($\beta = .22, p < .05$), (H5c) commonality ($\beta = .24, p < .05$), and (H5d) helpfulness ($\beta = .63, p < .05$) did promote attitude toward the message. H6 is also partially supported, since (H6a) credibility ($\beta = .06, p > .05$) was not significant, while (H6b) engagement ($\beta = .18, p = .014$), (H6c) commonality ($\beta = .22, p = .032$), and (H6d) helpfulness ($\beta = .44, p = .000$) did promote attitude toward the product. Finally, H7 followed somewhat the same pattern of partial support, with (H7a) credibility ($\beta = .11, p > .05$) and (H7d) helpfulness ($\beta = .05, p > .05$) not significant; but (H7b) engagement ($\beta = .54, p < .05$) and (H7c) commonality ($\beta = .35, p = .001$) did exhibit significant effects on purchase intentions. Table 15 provides an overview of the constituent paths in the mediating hypotheses.

In Step 3, full or partial mediation is now determined by testing both the total conditional indirect effect for WOM/eWOM $\rightarrow$ Social Communication $\rightarrow$ to each outcome measure, with the conditional direct effects with the mediators included (see Table 15). The total conditional, indirect effect estimates indicated that the impact of WOM type (i.e., WOM versus eWOM) on attitude towards the messages was explained by the social communication constructs (total indirect effects point estimate = .54, 95% CI = .2097 to .9267). Since the confidence intervals do not contain a zero, the mediation is supported. The direct effect of WOM type on attitude toward the message controlling for social communication is no longer significant (direct effect point estimate = .19, 95% CI = -.1218 to .5090. Since the confidence intervals do contain zero, full mediation is supported.

The total conditional indirect effect estimates indicated that the impact of WOM type on attitude towards the product was explained by social communication constructs (total indirect effects point estimate = .42, 95% CI = .1106 to .7968). Since the confidence intervals do not contain a zero, the mediation is supported. The direct effect of WOM type on attitude toward the product, controlling for social communication, is still significant (direct effect point estimate = .46, 95% CI = .1071 to .8245. Since the confidence intervals do not contain zero, partial mediation is supported.

The total conditional indirect effect estimates indicated that the impact of WOM versus eWOM on purchase intentions was explained by social communication constructs (total indirect effects point estimate = .62, 95% CI = .2306 to 1.102). Since the confidence intervals do not contain a zero, the mediation is supported. The direct effect of WOM versus eWOM on purchase intentions controlling for social communication is not significant (direct effect point estimate = -.64, 95% CI = -.6418 to .0664. Since the confidence intervals do contain zero, full mediation is supported. Please see Figure 12 for a visual depiction of the mediation results.

The results reveal that these social communicating variables do in fact mediate the relationship between WOM/eWOM and consumer perceptions. A WOM (versus an eWOM) communication exchange is perceived by the audience as having a more engaging experience with a higher connection to the source, which makes the product recommendation more impactful. WOM versus eWOM had a significant positive path to helpfulness; although, it was
predicted that WOM versus eWOM would have a negative path to helpfulness. Therefore, WOM versus eWOM had a significant path to all of the four social communication constructs. Looking at a plot of the mean differences between the WOM versus eWOM conditions (see Figure 13), WOM had a higher significant difference over eWOM on all four of the social communication constructs. It is interesting to note that eWOM had its closest mean score to WOM on the helpfulness element compared to the remaining WOM/eWOM scores on the other three elements. So this gives hope that eWOM can reach levels closer to that of WOM, and be just as effective. This data show a clear indication that WOM is a superior method over eWOM when providing a positive product recommendation.

![Diagram of mediation pathway summary](image-url)

Figure 12: Mediation Pathway Summary

Credibility having a non-significant path to all three outcomes is inconsistent with previous WOM and current eWOM literature. One of the main research antecedents of WOM/eWOM is credibility (Arndt 1967, Kim and Gupta 2012, Folse et al. 2016). Interestingly, WOM and eWOM held the highest mean score on the credibility element, when compared to the mean scores on the remaining three elements. One explanation is that the credibility items used in this study focused on overall believability, or approachability, of the source. Going forward, I will use additional items that reflect the attributes of expertise and trustworthiness. Providing a more complete measure of credibility should resolve this inconsistent finding.

This study also provided a case example of a mediation finding without an initial, direct effect from the independent variable to the dependent variable (Preacher and Hayes 2008). WOM/eWOM had no direct effect on purchase intentions; however, in the presence of the social communication mediating constructs, there was an indirect mediation effect. Given the results obtained from the conceptual model proposed in Essay One and tested earlier in this chapter, an alternate conceptual model is proposed. A possible explanation for purchase intentions showing insignificant results could mean a potential relationship with the attitude constructs (see Figure 14). The marketing literature has established a consistent principle that attitudes
precede intentions. For example, the advertising industry functions on the premise that consumers who purchase intentions can be highly influenced by positive and negative (e.g., fear campaigns) associations to advertising messages (Solomon 2015). The following section will discuss this attitude-intention relationship.

<table>
<thead>
<tr>
<th>Group</th>
<th>Mean</th>
<th>Sig. (p&lt;)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CR</td>
<td></td>
<td></td>
</tr>
<tr>
<td>WOM</td>
<td>6.376</td>
<td>.000</td>
</tr>
<tr>
<td>eWOM</td>
<td>5.556</td>
<td></td>
</tr>
<tr>
<td>EN</td>
<td></td>
<td></td>
</tr>
<tr>
<td>WOM</td>
<td>4.713</td>
<td>.012</td>
</tr>
<tr>
<td>eWOM</td>
<td>3.989</td>
<td></td>
</tr>
<tr>
<td>CM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>WOM</td>
<td>4.638</td>
<td>.021</td>
</tr>
<tr>
<td>eWOM</td>
<td>4.204</td>
<td></td>
</tr>
<tr>
<td>HP</td>
<td></td>
<td></td>
</tr>
<tr>
<td>WOM</td>
<td>5.447</td>
<td>.037</td>
</tr>
<tr>
<td>eWOM</td>
<td>5.022</td>
<td></td>
</tr>
</tbody>
</table>

*Significant at p < 0.05; Multivariate Analysis of Variance (MANOVA)

Figure 13: Social Communication Construct Profiles

ALTERNATIVE ATTITUDE-INTENTION RELATIONSHIP MODEL

The Attitude-Intention Relationship (AIR) is a cognitive decision theory that assumes individuals make a volitional action, based on perceived information (Kronrod et al. 2013). Attitudes are defined as an overall, evaluative judgment of the information communicated (MacKenzie et al. 1986). Purchase Intention is the likelihood a person will buy a product (Schiffman and Kanuk 2000). Extensive research has provided strong evidence in support of the attitude-intention relationship (Loken 1983, Bagozzi and Warshaw 1990, Wolny et al. 2013). For example, studies have shown that attitudes and intentions are highly correlated (Sheppard et al. 1988), and attitudes are an antecedent to intentions (Loken 1983, Wolny et al. 2013). In fact, studies have shown that attitude toward the message is a key starting point to influence subsequent attitudes and intentions, such as attitudes toward the recommended product and purchase intentions (Sheppard et al. 1988, Bergkvist 2009, Prendergast et al. 2010).

Extant WOM literature has independently demonstrated that not only WOM influences attitudes (Priester and Petty 1995) and intentions (Arndt 1967), but also eWOM influences attitudes (Kronrod et al. 2013) and intentions (Moore 2012; He and Bond 2015). AIR is an
established principal that supports other theories, including the Theory of Planned Behavior (Ajzen and Fishbein 1975) and Theory of Reasoned Actions (Ryan and Bonfield 1980).

AIR is an alternative conceptual model that predicts a sequential process regarding the purchase-related attitudes; AIR would serve to mediate the relationship between the WOM type and purchase intentions. Given this conceptualization, the direct effect of WOM type to purchase intentions does not have to be significant in order to have mediation. The research question for support of this conceptual model involves the sequential process of attitudes leading to intentions: RQ 2a) Is there a sequential relationship among the purchase-related outcomes?

The hypotheses for this research question are as follows:

Hypothesis 8a: WOM versus eWOM positively impacts attitude toward the message
Hypothesis 8b: Attitude toward the message positively impacts attitude toward the product
Hypothesis 8c: Attitude toward the product positively impacts purchase intentions

Results

Hypothesis 8 is fully supported. WOM versus eWOM positively impacts attitude toward the message ($\beta = .74$, $p = .001$), supporting H8a. Attitude toward the message positively impacts attitude toward the product ($\beta = .77$, $p = .000$), supporting H8b. Finally, attitude toward the product positively impacts purchase intentions ($\beta = .54$, $p = .000$), supporting H8c. The total conditional, indirect effect of estimates indicated that the impact of WOM versus eWOM on purchase intentions was explained by attitudes (total indirect effects point estimate = .19, 95% CI = .0327 to .4846). Since the confidence intervals do not contain a zero, the mediation is supported. The direct effect of WOM versus eWOM on purchase intentions controlling for attitudes is not significant (direct effect point estimate = -.28, 95% CI = -.6425 to .1288. Since the confidence intervals do contain zero, full mediation is supported.

These results show that the purchase-related attitudes are not isolated variables that have no association among them. On the contrary, the findings support the attitude-intentions relationship found in marketing literature. Since conceptualization is more useful and more accurate regarding the variables association, studies conducted in Essay Three will follow the attitude-intention relationship framework. This AIR alternative model will replace the original model, in which the outcomes variables were examined separately.

DISCUSSION

In this essay, I propose a conceptual model using the Social Communication Theory to explain the main effect of WOM/eWOM on consumer evaluations. This proposed model suggests that consumer-to-consumer communication can be analyzed examining who (the source), says what (the message), in which channel, to whom (the audience), and with what effect (the response) (Lasswell 1948). This proposes a mediated relationship based on the four elements from Social Communication Theory (i.e., credibility, engagement, commonality, and helpfulness). The proposed conceptual mediational model provides a theoretical contribution to the marketing literature because it provides a more comprehensive analysis of the effect of WOM on customer purchase intentions, rather than looking at WOM and eWOM in isolation.
This work contributes to the literature of empirical evidence, suggesting that WOM is more impactful than eWOM on purchase-related outcomes. With the growth of the internet and increased consumer familiarity with social networking, the sharing economy, and product information; WOM of mouth still carries a stronger persuasive influence than eWOM. This work questions if marketing scholars are turning a blind eye to what matters most and what must be done to make eWOM communications more effective. This work also contributes to the literature of social communication-based conceptual theory, which provides an established interpersonal framework to a digital marketing era.

**Figure 14: Alternative Attitude-Intention Relationship Model**

Finally, this research provides insights into the path to purchase that influences a consumer’s purchase in decision making in an offline and online environment. There may be a form of social diffusion from the energy and enthusiasm of a positive recommendation source presented face-to-face that directly impacts attitudes, but wanes during a more committal act of signaling one’s intention to purchase (Howard and Gengler 2001, Iyengar et al. 2011). The alternate explanation of an attitude-intention relationship was supported. Attitude toward the message, attitude toward the product and purchase intentions are not solely important marketing outcomes to study alone, but also important to study together. If studied in isolation, the impact of one of the variables might be masked by one or more of the other variables. The AIR model provides a deeper understanding of consumer information processing. AIR also refines the conceptual model toward being a more parsimonious representation of the true relationships
among the social communication constructs and the purchase-related attitudes. This clearer conceptualization will be used going forward in Essay Three. This AIR finding in the digital age should encourage scholars and practitioners to consider the attitude-intention relationship in their marketing mix modeling.

Using a unique research methodology, including direct comparisons of WOM and eWOM, increases the validity and generalizability of the results. This work answers the call to research of both WOM and eWOM in a manner that preserves the essence of both (Baker et al. 2016). Lamberton and Stephen (2016) stated there is a struggle “with ways to integrate digital with traditional...that indisputably create value,... we believe that crossover between the online and offline worlds warrants deeper exploration.” Prior researchers studied WOM and eWOM, using a series of studies where WOM is the context of one study and eWOM is the context of another (Barasch and Berger 2014, Berger et al. 2013, Lovett et al. 2013). Direct comparisons were not made and their relative effect could not be determined. This dissertation contributes a unique method of studying WOM and eWOM together in the same study for direct comparison purposes. Future scholars can use this method to help explore this topic to deepen the understanding of convergent, divergent, and synergistic properties of eWOM and WOM communications. To this researcher’s knowledge, this dissertation is the first to contribute a novel approach to studying WOM versus eWOM that is more ecologically valid than the broadly applied scenario manipulations. Additionally, this research contributes to measurement theory by showing the benefits of multiple-item measures versus single-item measures. Prior studies applied single-item, non-purchase-related attitudinal measures (Barasch and Berger 2014; Baker et al. 2016; Berger et al. 2013). The problem with single-item measures is that reliability cannot be calculated, which threatens the validity of the measure (Aguinis et al. 2016). Using this single item limits the generalizability of the findings and does not assess the global evaluation of the review and/or product. This current research uses multiple-item measures to triangulate the psychological meaning of the construct and to substantiate reliability (Hair et al. 2010). If a single-item measure is used, authors should report a theoretical explanation, but use multiple indicators to improve precision in the construct and theory testing (Hayduk et al. 2012).

The ultimate goal of this research is to enhance the effectiveness of eWOM to increase the sales of practitioners’ goods and services. The main target is to make positive reviews more impactful. Extensive research has been conducted to provide insight towards mitigating negative messages (Folse et al. 2016, Kim and Gupta 2012, Sen and Lerman 2007, Laczniak et al. 2001), while creating a gap in our understanding of positive messages, especially in a Web 2.0 era.

The motivation for the next study would seek to close the gap between WOM and eWOM. The next study will apply theoretical elements of the Hyperpersonal Model of Communication to eWOM that will prove more effective. Specifically, Essay Three investigates whether additional humanized cues can extend to eWOM in order to mitigate the superior effects of WOM found in Essay Two.
ESSAY THREE: HOW ROBUST IS THE RELATIVE DIFFERENCE BETWEEN WOM AND EWOM: A REPLICATION AND EXTENSION SET OF STUDIES

INTRODUCTION

In Essay Two, word of mouth (WOM) and electronic word of mouth (eWOM) were empirically tested to reveal that WOM has a significantly higher impact on consumers’ evaluations than eWOM. The first question that motivates this essay is how robust is the relative effect of WOM versus eWOM on purchase-related attitudes? To answer this question, the first section of this essay will be a replication of these primary findings from the second essay. In the replication effort, the same innovative technique will use actual people to convey WOM stimuli in a verbal, face-to-face manner that allows for offline and online quantitative comparisons. Moreover, two different empirical approaches will be employed to assess not only the stability of the results, but its consistency when assessed using the PROCESS approach (Hayes 2012), or extended to testing versus Structural Equation Modeling (SEM), which allows for the inclusion of measurement error (Hair et al. 2010). Using these two methods provides robustness tests of the results, irrespective of the analytical approach used. Also, comparing these methods could contribute a case study on tools to analyze data for managerial practice. For example, marketing managers could use these results to help determine whether PROCESS or SEM may be more useful for marketing mix modeling.

Given a successful replication and confirmation of the basic differences between WOM and eWOM, the focus then shifts to developing a variant of eWOM that improves its impact on purchase outcomes. Of particular interest is whether certain elements from positive WOM communication are transferable to positive eWOM communications to enhance the effectiveness of the latter, allowing marketing practitioners to view a positive impact on revenue (DuBois et al. 2016). Based on Hyperpersonal Model of Communication Theory, I propose a third consumer-to-consumer WOM type: Hyperpersonal electronic word of mouth (HeWOM), which is hypothesized to bridge the gap on attitude toward the message between WOM and eWOM. The Hyperpersonal Model of Communication suggests that the additional WOM cues in eWOM messages produce a hyperbolic reaction within consumer perceptions (Walther 2011). In the absence of non-verbal cues found in WOM communication, eWOM receivers become very sensitive to the content of eWOM communications. The WOM elements that transfer to the online environment humanizes the eWOM communication, thus positively influencing the social communication process to make HeWOM recommendations significantly more impactful than eWOM communications alone. Similar to Essay Two, social communication is used to examine the underlying mechanism that explains the relationships between word of mouth types and consumer purchase attitudes. Providing evidence that eWOM can be improved and how to do it will be useful to managers in the increase of sales.

This essay addresses four research questions; the first two involve replication of the results found in Essay Two and the last two focus on the extension of eWOM:

RQ 4: Does the relative effect of WOM/eWOM on attitude toward the message replicate across essays?
RQ 5: Does the relative effect of WOM/eWOM on attitude toward the message replicate across methods?
RQ 6: Can eWOM be enhanced in a way that attenuates the relative difference between WOM and eWOM?
RQ 7: Does the mediating impact of the social communication process differentiate the extended form of eWOM?

This essay is presented in two sections: replication and extension. The replication section will recap the conceptual framework examined in Essay Two, and then present the method, results, and discussion concerning replication of the AIR model. The extension section will detail the theoretical development of the extended conceptual model through the introduction of the HeWOM form of eWOM, and then discuss the method and empirical results.

REPLICATING ACROSS ESSAYS AND METHODS

One of the main tenets of scientific research is the accumulation of knowledge through the scientific method. Stangor (2010) states that “most research is designed to replicate— that is, to repeat, add to, or modify – previous research findings.” The first objective of Essay Three is to replicate Essay Two in terms of different samples and multiple methods. If the findings replicate, then this dissertation provides stronger evidence that the relative difference between WOM and eWOM is robust, and a substantive blueprint for examining these types of effects using different operationalizations, moderators, marketing outcome variables, etc.; across different demographics, settings, and time periods. In Essay One, purchase-related attitudes were conceptualized as three separate marketing outcomes. However, Essay Two provided conceptual and empirical evidence that the three purchase-related attitudes were correlated in an attitudes-intention relationship (see Alternative Attitude-Intention Relationship Model section of Essay Two for more information). With this increased understanding of the relationship among the outcome variables, I used the attitude-intention relationship model going forward to investigate the impact of WOM type on the purchase-related outcomes.

Conceptual Framework—Essay Two Recap

Earlier essays conceptualized the concept of person-to-person communication for the purpose of purchase-related information exchange, traditionally termed word of mouth. WOM, whether of the more traditional personal interaction or its online variant, has long been considered an essential form of interpersonal communication that strongly impacts the consumer decision process. The emergence of e-commerce and the ability for consumers to now engage in communication with other consumers, while not requiring face-to-face interaction has extended our conceptualization of WOM into at least two variants. Building on recent literature, notably Hennig-Thurau et al. (2004); electronic word of mouth (eWOM) is defined as: a written product information transmitted through a public, asynchronous, computer-mediated-online channel from one consumer to another consumer. While building on the work of Berger et al. (2013), word of mouth (WOM) is defined as: product information orally transmitted through a private, synchronous, non-computer-mediated-offline channel from one consumer to another consumer.

In Essays One and Two, theoretical support for the relative impact of WOM versus eWOM (i.e., which will be hypothesized to be more impactful) was based on the introduction of Social Communication Theory, which defines the communication process through five elements: the source, the message, the channel, the audience, and the response (Lasswell 1948). Based on Social Communication Theory, I propose WOM will have a higher impact on purchase-related
attitudes, as a more dynamic communication exchange than eWOM. In other words, in a WOM communication exchange, receivers can perceive more information (both verbal and non-verbal) from the source (e.g., expertise clues), the message (e.g., verbatim or paraphrased information), the channel (e.g., talking over Facebook’s social network versus a Ruth Chris’ dinner table), the audience (e.g., private or public audience), and the response (e.g., the communication effort was time well spent or the communication exchange was a waste of time) than in an eWOM communication exchange. The Social Communication Theory posits that receiver evaluation of an object can change, based on how information about the object is conveyed (i.e., whether the information would be presented as a traditional word of mouth message or an electronic word of mouth message). The theory would predict that WOM consumers would perceive a more dynamic social interaction when the exchange is face-to-face than if the exchange is computer-mediated, as in an eWOM interaction. This change in perception would occur; even should the information be exactly the same.

The empirical results of Essay Two supported the social communication predictions (see Essay Two results section). Using the same informational message for both WOM and eWOM conditions, the results showed that individuals in the WOM condition did have a significantly higher attitude toward the message evaluations than those in the eWOM conditions. The results indicate consumers’ evaluations are different, based on the presentation of the message. After the presentation of the information, consumers form attitudes toward the message first, then the product, which then influenced the purchased intention. Since the focal outcome measure is the attitude toward the message, I will test the replicability of its antecedents and consequences. The first purpose of the replication is to test whether the results of Essay Two are comparable, using a different sample taken for Essay Three. The replication will be deemed successful if the results of the second sample collected for Essay Three match the results of the first sample collected for Essay Two.

For purposes of replication, the first hypothesis will re-examine the basic relationship, assessing the difference between WOM and eWOM.

Hypothesis 9: Participants in the WOM condition will have a higher attitude toward the message than those in the eWOM condition.

In addition to the replication across samples, the additional sample of respondents in Essay Three also allows for a replication of results across methods. This replication is a study on the application of measurement theory and its potential impact on the estimated results. Specifically, this study will entail a replication of the attitude-intention relationship found in Essay Two, using two different methods: PROCESS and Structural Equation Modeling (SEM). PROCESS was used in Essay One, primarily due to its capability to analyze small data. However, PROCESS does not take into account measurement error and therefore treats the variables as if they match the true score of a latent construct. One or more of the predicted paths may have been overinflated, which could have impacted the results. SEM measures and corrects for measurement error. Analyzing the data using both methods can show the robustness of the finding. It can also eliminate the alternative explanation that Essay Two’s AIR results were due to the analytic technique. The question that remains is if accounting for measurement error impacts the results between the PROCESS and SEM differently?

PROCESS is a regression based analytic method to estimate both mediator and moderator models, specifically the indirect and direct effects (Hayes, 2012). PROCESS is widely used due
to its flexibility in assessing a wide range of mediation, moderation, and even mediation/moderation combinations. Moreover, since it is a regression-based method, it can be used with relatively small samples. However, PROCESS does not provide any direct evidence of construct validity of the measures nor make an assessment of the impact of measurement error in the constructs. Since this research employed multi-item constructs in an effort to mitigate measurement error, it would be useful to employ those characteristics into the estimation of the WOM/eWOM relationship on purchase-related outcomes.

SEM uses a simultaneous equation framework to investigate the mediating structure of constructs (Hair et al., 2010). SEM is a more complex analytical approach, which not only can estimate the hypothesized relationships of Essay Two but do so in an approach that corrects for measurement error in the multi-item constructs. This provides an increased analytical precision by estimating the unattenuated relationships (i.e., relationships corrected for measurement error) within the specified model (Hair et al. 2010). Moreover, SEM can provide evidence of the required construct validity of the multi-item constructs employed in this research, particularly in terms of convergent and discriminant validity. Without assessing construct validity, there could be a chance the actual measures do not reflect what the researcher thinks they should measure or the theoretical relationships.

It should be noted that the replication across methods is incumbent on a successful replication across samples to provide adequate sample size for the use of SEM. Assuming that Hypothesis 1 is supported, the second aspect of replication is to assess if the two methods replicate the same results. The hypotheses that will be used to test and compare the results are as follows:

Hypothesis 10a: WOM versus eWOM positively impacts attitude toward the message; analyzed by PROCESS

Hypothesis 10b: Attitude toward the message positively impacts attitude toward the product; analyzed by PROCESS

Hypothesis 10c: Attitude toward the product positively impacts purchase intentions; analyzed by PROCESS

Hypothesis 11a: WOM versus eWOM positively impacts attitude toward the message; analyzed by SEM

Hypothesis 11b: Attitude toward the message positively impacts attitude toward the product; analyzed by SEM

Hypothesis 11c: Attitude toward the product positively impacts purchase intentions; analyzed by SEM

Method, Sample, Measures

The data used in testing the replication hypotheses came from both Essays Two and Three. The data collection procedure for Essay Two is described earlier (see Essay Two Method section) and results in a total of 92 responses, 47 in the WOM condition and 45 in the eWOM condition. There were 47 males and 43 females with two participants choosing not to disclose their gender identification. In Essay Three, the same data collection procedures were used, with participants from a subject pool at a major state university; these were recruited to participate in the study, administered in an on-campus behavioral research lab. The WOM condition was
presented live before a private audience of one while the eWOM message was presented on computer screens. As before, the stimuli was an online movie review for a fictitious “college movie.” This was used to avoid any brand effects. In Essay Three, an additional variant of WOM was introduced, resulting in a three-level factor (WOM, eWOM, and HeWOM), see Table 16 for stimuli treatments. The HeWOM level will be discussed in more detail in the following Extension section; therefore, HeWOM condition is ignored for purposes of replication across samples. The result is 125 respondents being used from Essay Three, 61 in the WOM condition and 64 in the eWOM condition. As in Essay Three, the sample had a reasonable balance in gender (70 males and 55 females). The complete sample consisted of 217 respondents with 117 males and 98 females. There were 108 in the WOM condition and 109 in the eWOM condition.

The same purchase-related outcomes measures were used as in Essay Two, including attitude toward the message, attitude toward the product, and purchase intentions (see Table 17 for individual items). Attitude toward the message is defined as the consumer’s overall evaluative judgment of the information communicated (MacKenzie et al. 1986), which is the product review itself. The 3-item attitude toward the message measure was adapted from Lee and Aaker (2004). Attitude toward the product is defined as the consumer’s overall evaluative judgment of the product or service (Solomon 1992). The 3-item attitude toward the product measure was adapted from Lee and Aaker (2004). Purchase intention is the likelihood a person will buy a product (Schiffman and Kanuk 2000). The 3-item measure was adapted from Grewal et al. (1998).

Results

Data Quality Tests

The first step is to assess the reliability of the multi-item constructs to ensure adequate construct reliability. The purchase-related attitudes demonstrated a high reliability with Cronbach’s alpha scores above 0.80. Acceptable reliability scores should be 0.70 and above (Hair et al. 2010). Attitude of the message had a Cronbach’s Alpha of .93, attitude toward the product had a Cronbach’s Alpha score of 0.96, and purchase intentions had a Cronbach’s Alpha score of 0.90 (see Table 17).

Before proceeding with the replication analysis, the manipulation check was performed to ensure correct interpretation of the stimuli. The study used two randomized manipulation check questions: “I was able to see the recommender’s face,” and “If I wanted to, I could have a conversation with the recommender.” The two items had a Cronbach’s Alpha of .81. The manipulation test using a summated measure of these two items, which supported the differences expected between WOM versus eWOM. The WOM (M=6.06) audience had a higher perceived face-to-face interaction than the eWOM (M=2.69) audience (F= 214.058; p = 0.00).

This hypothesis was tested by examining the main effects and interactions of a 2 x 2 ANOVA with WOM type (WOM, eWOM) and Essay (Essay Two sample—collected from 2015-2016, Essay Three sample—collected from 2016-2017)) as the independent factors. The outcome measure was attitude toward the message, the first outcome attitude in the AIR model. As seen in Table 18, the differences between WOM and eWOM were still significant (F(1, 216) = 30.457, p = .000), demonstrating that the hypothesized effect was still found. The main effect for Essay, which tests whether there were differences between the two Essay samples, was not
significant (F(1, 216) = 1.353, p = .246) along with a non-significant interaction effect (F(1, 216) = .455, p = .501).

Table 16: Essay Two and Essay Three Treatments

<table>
<thead>
<tr>
<th>Essay Three: Replication Study*</th>
<th>Essay Three: Extension Study</th>
</tr>
</thead>
<tbody>
<tr>
<td>WOM</td>
<td>eWOM</td>
</tr>
<tr>
<td>I saw the funniest movie of the year recently. It’s called “Before We Graduate” and it’s a bucket list full of the stuff you got to do before you graduate college. The story makes it easy to put yourself into those embarrassing situations you may have been through or had a friend go through. A group of us watched it and we couldn’t stop laughing. If you are looking for a good laugh, I highly recommend this movie.</td>
<td>I saw the funniest movie of the year recently. Since we are both in college, I thought you might like it too.” It’s called “Before We Graduate” and it’s a bucket list full of the stuff you got to do before you graduate college. The story makes it easy to put yourself into those embarrassing situations you may have been through or had a friend go through. A group of us watched it and we couldn’t stop laughing. If you are looking for a good laugh, I highly recommend this movie. Someone should pay me for telling everyone about this movie. Do you like movies like this? Any questions about anything?</td>
</tr>
</tbody>
</table>

Note: *Essay Two: Main Study and Essay Three: Replication Study used the same message treatment. **HeWOM treatment was not used in the replication analysis.

Examining the mean levels on each factor reveals the levels of WOM and eWOM on attitude toward the message were consistent across Essays. Essay Two results indicated that the WOM condition (M = 5.96) was significantly higher than the eWOM condition (M = 5.12). Essay Three’s results replicated the results in that the WOM condition (M = 6.10) was also significantly higher than the eWOM condition (M = 5.16; F(1, 123) = 20.654, p = .000; see Table 19). Given the replicability of results from Essay Two to Essay Three essays, H9 is supported (see Figure 15). With a non-significant interaction between Essays and WOM type, there is support for the equivalence of the difference between WOM/eWOM across Essays Two and Three (see Table 18). Thus, the two samples will be pooled for testing the replication across methods.

Hypotheses 2 and 3: Replication across Methods

The next step was to assess the predicted, mediated, attitude-intention relationship model for both PROCESS and SEM methods. To do so required a pooling of participants from Essay Two (N=92) and Essay Three (N=125), since SEM requires a sample of approximately 200 (Hair et al. 2010) for robust results (see Table 20 for descriptive statistics). The combined sample allows for the investigation of method replicability, comparing PROCESS and SEM with the
larger sample. To ensure the measurement properties of the latent constructs, a confirmatory factor analysis was conducted. With evidence of construct validity, hypotheses 2 and 3 will be tested.

Table 17: Essay Three Replication Study Dependent Measures

<table>
<thead>
<tr>
<th>Construct Basis</th>
<th>Definition and Operational Measures</th>
<th>α</th>
</tr>
</thead>
</table>
| Attitude Toward the Review (Lee and Aaker 2004) | Definition: The consumer’s overall evaluative judgment of the information communicated  
Measures: My attitude toward the movie review is primarily:  
(7-Point Semantic Differential Scale)  
• 1= Unfavorable / 7 = Favorable  
• 1 = Bad / 7 = Good  
• 1 = Negative / 7 = Positive | .93 |
| Attitude Toward the Product (Lee and Aaker 2004) | Definition: The consumers’ overall evaluative judgment of the product or service.  
Measures: My attitude toward the movie is primarily:  
(7-Point Semantic Differential Scale)  
• 1= Unfavorable / 7 = Favorable  
• 1 = Bad / 7 = Good  
• 1 = Negative / 7 = Positive | .96 |
| Purchase Intentions (Grewal et al. 1998) | Definition: The extent to which a firm’s marketing mix decision or action is based on involvement of a wide range of managers across functions.  
Measures (1 = strongly disagree, 7 = strongly agree):  
• I would like to see this movie.  
• I would consider this movie.  
• I would pay money to this movie.  
• I would watch this movie with my friends. | .90 |

A confirmatory factor analysis was performed, using IBM AMOS statistical software on the three multi-item purchase-related constructs. The first step is determining the acceptable model goodness of fit (GOF), for which three GOF measures will be used. The first is a chi-square measure to test the difference between actual covariance and estimated covariance. The results should be small and non-significant (Hair et al. 2010). This test is sensitive to many model attributes, such as sample size and number of constructs, and thus its results are not conclusive (Hair et al. 2010). The incremental GOF measure used was the comparable fit index (CFI), which should have a value higher than .90 (Hair et al. 2010). The final GOF measure is the root mean square error of approximation (RMSEA). Although academic scholars have argued against a set cutoff measure, Hair et al. (2010) provided a rule of thumb recommendation that the RMSEA estimate should have values at or lower than 0.8 to indicate a well-fitting model. The results support the inference of a good fitting model. Although, the chi-square test is significant ($\chi^2 = 61.159, p = .000$), the CFI is above .90 (.98), and RMSEA is approaching the
These results indicate acceptable GOF and allow for further examination of the results for construct validity.

Table 18: Summary Table for Replication Across Samples: WOM versus eWOM (Combined Sample)

<table>
<thead>
<tr>
<th>Condition</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig. (p = )</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dependent Variable: Attitude Toward the Message</td>
<td>W.O.M Type</td>
<td>37.766</td>
<td>1</td>
<td>37.766</td>
<td>30.457</td>
</tr>
<tr>
<td></td>
<td>Essay</td>
<td>1.677</td>
<td>1</td>
<td>1.353</td>
<td>1.353</td>
</tr>
<tr>
<td></td>
<td>WOM Type by Essay</td>
<td>0.564</td>
<td>1</td>
<td>0.564</td>
<td>0.455</td>
</tr>
<tr>
<td>Residual</td>
<td>264.115</td>
<td>213</td>
<td>1.24</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>6993.778</td>
<td>217</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 19: Summary Table for Replication: WOM versus eWOM (Essay 3 Sample)

<table>
<thead>
<tr>
<th>Condition</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig. (p = )</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dependent Variable: Attitude Toward the Message</td>
<td>W.O.M Type</td>
<td>28.043</td>
<td>1</td>
<td>28.043</td>
<td>20.654</td>
</tr>
<tr>
<td>Residual</td>
<td>167.002</td>
<td>123</td>
<td>1.358</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Results supported uni-dimensionality with neither significant cross-loadings nor residuals of 2.5+ to indicate a problem. To provide evidence of construct validity, composite reliabilities and average variance extracted (AVE), estimates were calculated. Composite reliability assesses internal validity, with values of .70 and greater indicating appropriateness for inclusion in this study (Hair et al. 2010). Attitude toward the message had a reliability score of .94, attitude toward the product had a reliability score of .96, and purchase intentions had a score of .91 (see Table 21). These composite reliability scores were comparable to the corresponding Cronbach’s Alpha: attitude toward the message (.93), attitude toward the product (.96), and purchase intentions (.90). Convergent validity was assessed with the AVE value having a value of at least .50 (Hair et al. 2010). The three measures indicated evidence of convergent validity by achieving AVE scores above .50: attitude toward the message (.83), attitude toward the product (.89) and purchase intentions (.73). The final test was for discriminant validity by comparing the AVE to a between-constructs correlation. If the AVE is greater than the squared between-construct correlations, the inference of discriminant validity is supported (Fornell and Larcker)
The results support that the three constructs are indeed discriminant from one another, in that no squared between-construct correlation was higher than a construct’s AVE (see Table 22). Now that the measurement model provided evidence of acceptable construct validity, the hypothesized paths were tested next, using PROCESS and SEM methods.

![Figure 15: Replication Across Essay Samples: WOM versus eWOM](image)

<table>
<thead>
<tr>
<th>Construct</th>
<th>Combined: N=217</th>
<th>Essay Two Data: N=92</th>
<th>Essay Three Data: N=125</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>STD</td>
<td>Mean</td>
</tr>
<tr>
<td>Attitude Toward the Review (AM)</td>
<td>5.55</td>
<td>1.19</td>
<td>5.46</td>
</tr>
<tr>
<td>Attitude Toward the Product (AP)</td>
<td>5.46</td>
<td>1.25</td>
<td>5.32</td>
</tr>
<tr>
<td>Purchase Intentions (PI)</td>
<td>5.16</td>
<td>1.23</td>
<td>4.93</td>
</tr>
</tbody>
</table>

**Testing the PROCESS Model**

Using PROCESS on the pooled sample, the three parts of Hypothesis 10 were tested in three steps (see Table 23). In step one, WOM versus eWOM did positively impact attitude.
toward the message ($\beta = .86$, S.E. = .15, p = .001), supporting H10a. H10b posited a positive relationship between attitude toward the message and attitude toward the product, which was also supported ($\beta = .88$, S.E. = .04, p = .000). Finally, H10c predicted that attitude toward the product positively impacts purchase intentions, and this was supported as well ($\beta = .41$, S.E. = .09, p = .000). Given these results, the total conditional indirect effect estimate shows that the relationship between WOM versus eWOM and purchase intentions was also significant (total indirect effects point estimate = .31, S.E. = .09, 95% CI = .1740 to .5524). Assessing the direct effect of WOM versus eWOM on purchase intentions in the presence of the two attitude mediators, the result was significant (direct effect point estimate = -.25, S.E. = .12, 95% CI = -.4972 to -.0094). This supports the finding of partial mediation by the two attitudinal constructs.

Table 21: CFA Construct Validity Results

<table>
<thead>
<tr>
<th>Constructs</th>
<th>Coefficient Alpha</th>
<th>Composite Reliability</th>
<th>Average Variance Extracted</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attitude Toward Message (AM)</td>
<td>.93</td>
<td>.94</td>
<td>.83</td>
</tr>
<tr>
<td>Attitude Toward Product (AP)</td>
<td>.96</td>
<td>.96</td>
<td>.89</td>
</tr>
<tr>
<td>Purchase Intentions (PI)</td>
<td>.90</td>
<td>.91</td>
<td>.73</td>
</tr>
</tbody>
</table>

Note: N = 217

Table 22: Testing for Discriminant Validity on Replication Measures

<table>
<thead>
<tr>
<th>Squared Construct Correlations</th>
<th>Average Variance Extracted</th>
</tr>
</thead>
<tbody>
<tr>
<td>AM</td>
<td>AP</td>
</tr>
<tr>
<td>AM</td>
<td>0.83</td>
</tr>
<tr>
<td>AP</td>
<td>0.83</td>
</tr>
<tr>
<td>PI</td>
<td>0.60</td>
</tr>
</tbody>
</table>

Note: The average variance extracted estimates are greater than the squared construct correlations providing evidence of discriminant validity.

Testing the SEM Model

Hypothesis 11 is tested using structural equation modeling path analysis, to ascertain whether comparable results are obtained to those found using the PROCESS approach. First, GOF is assessed with the same three measures used in CFA. The structural path model demonstrated good model fit: $\chi^2 = 107.455$, p = .001; CFI = .98; RMSEA = .06. These estimates provide evidence of acceptable model fit, using the above-recommended guidelines (Hair et al. 2010). Examining the structural model paths allows for testing mediation in a three-step process.
(see Table 24). H11a predicts that WOM type impacts attitude toward the message. This prediction is supported, WOM type positively impacted attitude toward the message ($\beta = .80$, S.E. = .219, $p = .000$). As expected, attitude toward the message positively impacts attitude toward the product ($\beta = .82$, S.E. = .091, $p = .000$), supporting H11b. Lastly, H11c is supported by attitude toward the product, positively impacting purchase intentions ($\beta = 1.027$, S.E. = .135, $p = .000$). The results of hypothesis 11 support the prediction of an attitudinal mediation. The inference is further supported by the significance of the total indirect effect for the attitude-intention SEM model (total indirect effects point estimate = .260, S.E. = .078, 95% CI = .1030 to .0425). One difference, however, was that the direct effect of WOM type on purchase intentions was not significant (direct effect point estimate = -.086, S.E. = .09; 95% CI = -.243 to .105). These results show that AIR fully mediates the relationship between WOM type and purchase intentions, which differs from the PROCESS results.

Table 23: PROCESS Mediation Results

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Path</th>
<th>Beta</th>
<th>Significance (p = )</th>
<th>Supported</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step 1: Effects of WOM/eWOM on Attitude Toward Message</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>H10a</td>
<td>WOM/eWOM to Attitude Toward Message</td>
<td>.86</td>
<td>.000</td>
<td>√</td>
</tr>
<tr>
<td>Step 2: Effects of Attitude Toward Message on Attitude Toward Product</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>H10b</td>
<td>Attitude Toward Message to Attitude Toward Product</td>
<td>.88</td>
<td>.000</td>
<td>√</td>
</tr>
<tr>
<td>Step 3: Effects of Attitude Toward Product on Purchase Intentions</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>H10c</td>
<td>Attitude Toward Product to Purchase Intentions</td>
<td>.41</td>
<td>.000</td>
<td>√</td>
</tr>
<tr>
<td>Step 4a: Conditional Indirect Effects of WOM/eWOM on Purchase-related Outcomes</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Path</td>
<td>Beta</td>
<td>Significance (95% CI)</td>
<td>Mediation Supported</td>
<td></td>
</tr>
<tr>
<td>WOM/eWOM $\rightarrow$ AM $\rightarrow$ AP $\rightarrow$ PI</td>
<td>.31</td>
<td>.1740 to .5524</td>
<td>√</td>
<td></td>
</tr>
<tr>
<td>Step 4b: Conditional Direct Effects of WOM/eWOM on Purchase-related Outcomes</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Path</td>
<td>Beta</td>
<td>Significance (95% CI)</td>
<td>Full or Partial Mediation</td>
<td></td>
</tr>
<tr>
<td>WOM/eWOM $\rightarrow$ Purchase Intentions</td>
<td>-.25</td>
<td>-.4972 to -.0094</td>
<td>Partial</td>
<td></td>
</tr>
</tbody>
</table>

**Discussion**

In Essay Two, the WOM/eWOM main effect on attitude toward the message was empirically tested. The result showed that WOM was significantly higher than eWOM on attitude toward the message. The results of this current replication study show that the Essay Two results replicated across Essays. Specifically, WOM is still significantly higher than eWOM on attitude toward the message, using a different sample. This shows the robustness of the original finding and further establishes in the literature a consistent finding that WOM is still
more impactful than eWOM, even after Web 2.0. While the two Essay samples were collected almost a year apart, a more interesting question would be to complete a longitudinal study in which the participants were the same, with data collected for multiple years to see whether the normalization of eWOM reduces the relative difference between WOM and eWOM over that time period.

Table 24: SEM Mediation Results

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Path</th>
<th>Beta</th>
<th>Significance (p = )</th>
<th>Supported</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step 1: Effects of WOM/eWOM on Attitude Toward Message</td>
<td>H11a</td>
<td>WOM/eWOM to Attitude Toward Message</td>
<td>.38</td>
<td>.001</td>
</tr>
<tr>
<td>Step 2: Effects of Attitude Toward Message on Attitude Toward Product</td>
<td>H11b</td>
<td>Attitude Toward Message to Attitude Toward Product</td>
<td>.90</td>
<td>.001</td>
</tr>
<tr>
<td>Step 3: Effects of Attitude Toward Product on Purchase Intentions</td>
<td>H11c</td>
<td>Attitude Toward Product to Purchase Intentions</td>
<td>.77</td>
<td>.001</td>
</tr>
<tr>
<td>Step 4a: Conditional Indirect Effects of WOM/eWOM on Purchase-related Outcomes</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Path</td>
<td>Beta</td>
<td>Significance (95% CI)</td>
<td>Mediation Supported</td>
<td></td>
</tr>
<tr>
<td>WOM/eWOM → AM → AP → PI</td>
<td>.26</td>
<td>.103 to .0425</td>
<td>√</td>
<td></td>
</tr>
<tr>
<td>Step 4b: Conditional Direct Effects of WOM/eWOM on Purchase-related Outcomes</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Path</td>
<td>Beta</td>
<td>Significance (p = )</td>
<td>Full or Partial Mediation</td>
<td></td>
</tr>
<tr>
<td>WOM/eWOM → Purchase Intentions</td>
<td>-.050</td>
<td>.537</td>
<td>Full</td>
<td></td>
</tr>
</tbody>
</table>

In addition to investigating the replicability of the main effects, Essay Three also seeks to examine whether the attitude-intention relationship was empirically supported in a similar fashion, using two different methods: PROCESS versus Structural Equation Modeling. This replication is a study in the application of measurement theory and its potential impact on the estimated results. PROCESS does not take into account measurement error; and therefore, treats the variables as if they match the true score of a latent construct. SEM measures and corrects for measurement error. PROCESS was used in Essay Two (N = 92), due to the small sample size inherited in studying WOM. Pooling both samples together provides an adequate sample size for the use of SEM (N = 217). Using this relatively large sample allows for the direct comparison between PROCESS and SEM, using the same combined sample. Testing the attitude-intention relationship path (WOM/eWOM → attitude toward the message → attitude toward the product → Purchase Intentions), the results demonstrate a great deal of similarity with both methods finding significant paths between constructs and a significant, indirect effect of WOM/eWOM on purchase intentions. A principal difference, however, is the estimate of the remaining conditional direct effect between WOM/eWOM and purchase intentions (see Table 25).
PROCESS found a significant direct effect suggesting a partial mediation, but the direct effect was non-significant using SEM, which indicates a full mediating path. From these results, a clear case can be made that measurement error does influence the results between methods. Not correcting for measurement error as SEM does, overinflates the latent constructs and the theoretical relationships between them. In this case, direct path from PROCESS is overestimated with a significant result. In contrast, SEM uses the unattenuated relationships (i.e., corrected for measurement error) and finds complete mediation by the attitudinal constructs. Given the results of both methods, I prefer the SEM results, yet there is still a substantive role for methods such as PROCESS when limited by sample size or exploring a variety of more complex model specifications.

Table 25: PROCESS versus SEM Replication Results

<table>
<thead>
<tr>
<th>Path</th>
<th>Hypothesis</th>
<th>PROCESS Standardized Path Estimate</th>
<th>SEM Standardized Path Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>WOM/eWOM → AM</td>
<td>H10a</td>
<td>.86*</td>
<td>H11a</td>
</tr>
<tr>
<td>AM → AP</td>
<td>H10b</td>
<td>.88*</td>
<td>H11b</td>
</tr>
<tr>
<td>AP → PI</td>
<td>H10c</td>
<td>.41*</td>
<td>H11c</td>
</tr>
<tr>
<td>Conditional Indirect Effect</td>
<td>.31*</td>
<td>.26*</td>
<td></td>
</tr>
<tr>
<td>Conditional Direct Effect</td>
<td>-.25*</td>
<td>-.086</td>
<td></td>
</tr>
</tbody>
</table>
* p < .05

With the relative difference between WOM and eWOM empirically tested and replicated, the extension section now explores methods that would increase the impact of eWOM to that of WOM.

DISTURBING THE WOM DICHOTOMY: AN EXTENSION TOWARD A THIRD WOM TYPE

The consumer-to-consumer communication dichotomy between WOM and eWOM disrupted the emergent growth of Web 2.0. Web 2.0 is the notion of online technology after 2005 that connects individuals around the world (Piecowye 2008). The assimilation and popularity of Web 2.0 have led to considerable and enduring shifts in marketing theory and practice (Kietzmann et al. 2011). The new technology has allowed eWOM communications to be more personal, and in a sense, human. With emoticons, increased online use, and oversharing the differentiation blurs between WOM and eWOM, and has led to the development of a hybrid construct that uses elements of WOM to enhance the impact of eWOM communication. This section of the essay introduces the Hyperpersonal Model of Communication as a theoretical lens that informs the development of a third hybrid WOM communication.
Theoretical Development

Hyperpersonal Model of Communication is an emerging theory that suggests elements of WOM communication can transfer to eWOM to make it more effective (Walther 2011). Hyperpersonal factors can be a catalyst that sparks the social steroids effect. Social steroids are the notion that the impact of cues in an offline WOM conversation will have a significantly enhanced impact in an online communication (Kimmel et al. 2014). In an eWOM context, non-verbal cues are limited, and senders develop their digital self-presentation by choosing cues that only enhance their images and reputations. Therefore, contextual signals take on a stronger value, due to the cue-limiting online environment (Tong et al. 2015). For example, eWOM receivers may assume the source has more expertise, due to the number of reviews he/she posted on a variety of topics than a WOM receiver who can more accurately assess the topic expertise of a face-to-face source (Kimmel et al. 2014). The Hyperpersonal Model of Communication suggests that humanizing a message with more salient WOM cues will lead the eWOM audience to overrate the signals, which will lead to a higher impact of HeWOM than eWOM on purchase-related outcomes (Walther 1996).

Hyperpersonal Model of Communication elucidates the psychological process of consumers’ purchase decision making in an online environment. The theory suggests consumers over-weigh additional relevant cues that aren’t present in typical eWOM messages. This is due to two important steps in the psychological process. Since WOM is a cue-rich environment, in which verbal and non-verbal signals are present in the communication exchange, receivers use cognitive resources to process all of the information sent. Some information is filtered out through a process of selective attention, whereas information may distract from the central message that is being conveyed. Walther (2011) posits that online receivers have additional cognitive capacity, because they do not have to process additional face-to-face non-verbal information (e.g., body language, demographic information, location noise) and therefore can focus all of their cognitive resources on processing the central message. The second step to an over-attribution or hyperbolic response is due to additional cues (over and beyond what is found in typical eWOM messages) that signal the usefulness of the recommendation would be highly attended to and highly impactful in the consumer decision-making process. Receivers “fill in the gaps” of the message and overweigh the additional cues leading to a hyperbolic impression of the message and product (Walther 1996). Hyperpersonal eWOM with humanizing cues would have higher purchase-related attitudes than the typical eWOM communication and become closer to that of WOM. Hyperpersonal humanizes an eWOM message by endowing it with selective emotional and interconnectedness cues.

Humanizing: Emotional Cues

One of the main threats to optimizing eWOM messages is the loss of the consumer emotion trust, due to an increasing amount of fake recommendations. Even though distrust has been decreasing over the years (Anderson 2014), popular press has repeatedly reported that fake reviews are on major websites. The Gartner (2012) research firm reports that at least 15 percent of eWOM messages are faked and influenced by companies. For example, Samsung was found to have paid students to praise its smartphones while providing negative comments on competitors’ products (Kerr 2013). The New York Times reported of companies paying Amazon Mechanical Turk workers to post positive reviews on Yelp websites (Segal 2011). This is not a
new concern; Amazon itself, at the turn of the century, discovered book authors were writing their own positive reviews to their novels (Smith 2004). Research has shown that Hyperpersonal emotion can be enhanced by online websites, especially with Western society consumers (Henderson and Gilding 2004). Emotions are defined as mental states of arousal that arise from cognitive appraisals of events or thoughts (Bagozzi et al., 1999). Emotions in eWOM are expressed as words and punctuation that highlight these mental states. In the context of online messages, the higher the arousal from an eWOM message, the higher the perceived emotional intensity (Henderson and Gilding 2004). Folse et al. (2016) suggested that consumers perceived high emotional intensity in eWOM, as a passionate plea, which increases trust perceptions and helpfulness evaluations. Consumers attend to eWOM in order to lower their risk in purchasing a bad product. Passionate messages humanize the eWOM communication, thereby increasing its effectiveness. Hyperpersonal eWOM would contain emotional cues to increase the level of trust more than the typical eWOM communication, thereby increasing the perceived purchase-related attitudes to be higher than eWOM and closer to that of WOM (see Figure 16).

**Humanizing: Interconnectedness Cues**

Interconnectedness is the notion of having access to others. In a typical eWOM message on a website such as Amazon or Yelp, there fewer interconnected cues than in a WOM interaction. These social cues are signals that indicate an individual’s personality, homophily, and willingness to engage with others (Wang et al. 2007). Even in a more transactional context of e-commerce, where the social norm is a one-way, one-time exchange, consumers have been shown to have higher attitudes and intentions when provided more social signals. For example, Wang et al. (2007) found that consumers had higher evaluations and patronage intentions for websites that had more avatars endowed with social cues than website avatars that were not endowed with these cues. The Hyperpersonal Model would similarly suggest that HeWOM messages that contain social linking cues would be perceived as more human and interpersonally connected than the typical eWOM to not only the source but to other audience members as well. Interconnectedness is an increasing sense that you interact with the source. It is the sense that other audience members also respond positively to the message. This increased level of closeness would position HeWOM higher than eWOM, but lower than traditional WOM on perceived interconnectedness (see Figure 16).

Thus,

Hypothesis 12: Participants in the HeWOM condition will have (a) higher attitudes toward the product than those in the eWOM condition, but (b) lower attitudes toward the product than to those in the WOM condition.

**Hyperpersonal cues increase the perceived Social Communication**

Social Communication Theory helps describes the process of a communication effort. In Essay Two, I proposed a model in which the four social communication elements mediated the impact of WOM/eWOM on attitude toward the message. Experimentally, when examining the difference between WOM and eWOM, the message was kept the same between WOM and eWOM conditions in Essay Two. In this extension, the eWOM message is endowed with
Hyperpersonal cues, presenting both emotional and interconnectedness that will influence the remaining social communication elements (source, channel, audience, and response) in a positive way. These humanizing cues would impact the social communication by increasing the perceived social dynamic. The Hyperpersonal Theory would suggest that HeWOM heightens the perceived social presence, which would positively impact source credibility and commonality. HeWOM would also heighten the social link to the communication effort, which would impact the channel and response. The link would not only connect the audience to the source but also connect to the messages in making these seem more relevant. The use of Hyperpersonal eWOM would allow the receiver to perceive higher levels of trust and lower levels of skepticism. The increased, perceived social communication will impact purchase-related attitudes in a manner that will increase the effectiveness of eWOM to that of WOM. In sum, Hyperpersonal electronic word of mouth increases the dynamic socialization of the perceived source, channel, audience, and response, which would then impact the purchase-related attitudes (see Figure 17). Similar to Essay Two, the constructs that will reflect the social communication elements are as follows: credibility (source), engagement (channel), commonality (audience), and helpfulness (response). Each will be discussed below.
Source Credibility. Source credibility is the belief that the sender is knowledgeable and has a non-incentivized motivation to share product information (Wiener and Mowen 1986). Extant research has shown that trust perceptions can be elevated for enhanced, as opposed to non-enhanced eWOM communications (e.g., Brown et al. 2007). In HeWOM communication, there are additional cues that signal trust to the receiver. Wang et al. (2016) suggested that the emotional cues in HeWOM lead to higher arousal, and higher hedonic evaluations. Also, higher trust perceptions should lead to fewer reasons to discount the message as a fake review. Therefore the receiver finds the personal product experience of the source more credible than a typical eWOM message that has a 15 percent chance to be a fake review (Gartner 2012).

Channel Engagement. Engagement refers to the level of involvement of the receiver to the communication effort (Spielmann et al. 2013). Active involvement is the notion of a high level of motivation and effort. WOM is socially engaging. This socialization increases the level of interest and involvement in the receiver (Berger and Schwartz 2011). The Hyperpersonal Model of Communication suggests that additional interconnectedness cues would enhance HeWOM messages to be more engaging than typical eWOM messages.

Audience Commonality. Commonality may be defined as the notion that the recipient is similar to the source in certain aspects related to the message. Extant research has shown that people tend to be more persuaded by a message when the source is perceived to be similar to them (Eccleston and Griseri 2008). In contrast, when sources are perceived as dissimilar to the
message recipient, then the message is not evaluated as favorably (Brown and Reingen 1987). Similarity increases persuasion because it reinforces the receivers’ self-concepts and helps them in their categorization of others (Burgoon et al. 2002). Typically, eWOM communications, as well as limited or ambiguous social cues, force its readers to guess at the level of commonality with the source leading to misattributions. The additional interconnectedness cues found in HeWOM messages provide direct and relevant information in which to draw similarity assessments.

**Helpfulness Response.** Helpfulness is the measure of the utility of a message. Consumers want to know if the message is relevant and whether one can use or apply the information (Sussman and Siegal 2003). Helpfulness is associated to information diagnosticity in the literature (Mudambi and Schuff 2010). Information diagnosticity (i.e., information value) refers to the adequacy, usefulness, and relevancy of information to assist a consumer in making a decision (Andrews 2013). Relevancy refers to the match between the information provided and the motivation to read the product review. Klar (1990) found that the more relevant the information, the more diagnostic it becomes, and the more it aids in judgment. When seeking to buy a product, consumers desire applicable product-specific information, as well as product performance-related information. Prior research has focused on the text of a product review to investigate information diagnostic aspects, such as review usefulness (Kim and Gupta, 2012; Li and Zhan, 2011). Review usefulness refers to the practicality of the information. Does it provide value in enabling one to progress toward a goal? Adequacy refers to the completeness or thoroughness of the information. In typical eWOM communications, readers of eWOM messages are asked to assess the helpfulness of an online product review with a dichotomous indicator: Yes or No, thumbs up or down, etc. The Hyperpersonal Model would add an additional interconnectedness cue that would aid the consumer in his or her consumer decision-making process. HeWOM would provide a more adequate, useful, and relevant recommendation than that of eWOM. Also, in Essay Two, WOM versus eWOM was predicted to have a lower impact on helpfulness. This prediction was not supported. WOM was significantly higher on all four social communication mediating constructs. Going forward, this essay will use a revised hypothesis, that WOM will have a higher impact than HeWOM and eWOM. Making WOM the reference construct means that the impact will be negative, as HeWOM and eWOM have lower impacts than WOM.

Thus,

Hypothesis 13: WOM/HeWOM/eWOM negatively impacts (a) credibility, (b) engagement, (c) commonality, and (d) helpfulness

Hypothesis 14: (a) Credibility, (b) engagement, (c) commonality, and (d) helpfulness will have a positive relationship with attitude toward the message

Essay Two and the replication study both showed evidence that the purchase-related attitudes are associated in an attitude-intention relationship. Therefore, this study will also test the outcomes measures in the predicted path (see Figure 18).
Thus, Hypothesis 15a: Attitude toward the message positively impacts attitude toward the product

Hypothesis 15b: Attitude toward the product positively impacts purchase intentions

**Method**

The data was collected using a three-level (WOM, HeWOM, eWOM) single factor (WOM Type) experimental design. The sample consisted of 178 participants from a subject pool at a major state university. The study was administered in an on-campus behavioral research lab. The sample contained 98 males and 79 females. One participant chose not to identify his/her gender. WOM and eWOM were operationalized using the procedure previously described in Essay Two (see page 68 for more information), except for the HeWOM additions to the eWOM message. The stimuli will be the same online movie review for a fictitious “college movie” used in Essay Two. In brief summary of Essay Two procedures, the eWOM message was presented.
on computer screens as well as the HeWOM message. The WOM message was presented live before a private audience of one.

Participants in the eWOM and HeWOM conditions completed the study using a computerized online survey process. The environmentally controlled study was conducted in an on-campus behavioral lab at a major southern state university. After entering through the main lab entrance, a group of no more than 26 participants at a time were assigned to one of 26 individual computer stations in which the experimental materials were presented, including the HeWOM and eWOM stimuli. Attention check questions, the social communication theory and purchase-related measures, manipulation check questions, and finally a demand check question were presented following the display of the stimuli. Upon completion of the study, each participant departed out of the main entrance.

Participants in the WOM condition entered the research lab through the main door individually. Then each individual interacted with a student volunteer trained to deliver the WOM script. After the student volunteer had performed the WOM message, each participant was assigned a private computer station to complete the same questions and measures presented to the HeWOM and eWOM participants. Once the responses were recorded, each WOM participant departed out of a secondary door opposite the main entrance to circumvent interaction with other participants taking or waiting to start the study. The following information was used for both the WOM and eWOM conditions:

“I saw the funniest movie of the year recently. It’s called “Before We Graduate” and it’s a bucket list full of the stuff you got to do before you graduate college. The story makes it easy to put yourself into those embarrassing situations you may have been through or had a friend go through. A group of us watched it and we couldn’t stop laughing. If you are looking for a good laugh, I highly recommend this movie.”

In the HeWOM condition, the message was enhanced with emotional and interconnectedness cues. The following information was used for the HeWOM condition:

“I saw the funniest movie of the year recently. Since we are both in college, I thought you might like it too.” It’s called “Before We Graduate” and it’s a bucket list full of the stuff you got to do before you graduate college. The story makes it easy to put yourself into those embarrassing situations you may have been through or had a friend go through. A group of us watched it and we couldn’t stop laughing. If you are looking for a good laugh, I highly recommend this movie. Someone should pay me for telling everyone about this movie. Do you like movies like this? Any questions about anything?”

The emotional additions to the message were: “Someone should pay me for telling everyone about this movie” and “Since we are both in college, I thought you might like it too.” The interconnectedness additions to the message were: “Do you like movies like this?” and “Any questions about anything?”
Measures

The same measures were discussed and collected as in Essay Two. The mediators that reflect the Social Communication Theory are credibility, engagement, commonality, and helpfulness (see Table 26 for mediator items). The purchase-related attitudes are attitude towards the message, attitude toward the product, and purchase intentions (see Table 27 for

<table>
<thead>
<tr>
<th>Construct Basis</th>
<th>Definition and Operational Measures</th>
</tr>
</thead>
</table>
| **Credibility** (Ohanian 1990) | Definition: The belief that the sender is knowledgeable and affable (Wiener and Mowen 1986)  
Measures: How strongly do you agree or disagree with each of the following statements:  
(1=strongly disagree, 7=strongly agree)  
   • I would characterize the recommender as honest.  
   • The recommender is sincere and genuine. |
| **Engagement** (Li et al. 2000) | Definition: The active participation (i.e., motivation, involvement, and effort) of an individual (Petty and Cacioppo 1986, Spielmann et al. 2013).  
Measures: (7-Point Semantic Differential Scale)  
   • How interested were you in the movie?  
     (1=Not Interested At All, 7=Very Interested)  
   • How motivated were you in learning about the movie?  
     (1=Not Motivated At All, 7=Very Motivated) |
| **Commonality** (Burgoon et al. 2002) | Definition: The perceived similarity, between two or more people (Brown and Reingen 1987).  
Measures: How strongly do you agree or disagree with each of the following statements:  
(1=strongly disagree, 7=strongly agree)  
   • I can see myself hanging out with the recommender.  
   • The recommender would fit into my circle of friends. |
| **Helpfulness** (Connors et al. 2011) | Definition: The utility of a message to aid consumers in their decision-making process (Sussman and Sielgal 2003).  
Measures: How strongly do you agree or disagree with each of the following statements:  
(1=strongly disagree, 7=strongly agree)  
   • The information provided was easy to understand  
   • The language was appropriate. |
measures descriptive statistics). A Confirmatory Factor Analysis was conducted to test the measurement properties of the constructs and items (see the replication results section for procedures and recommended cutoffs). The composite reliability scores of all of the measures were above .80, indicating high reliability (see Table 28). Convergent validity will be assessed by calculating the average variance extracted (AVE) value. All measures were at or above the .70 recommended AVE cutoff score (Hair et al. 2010). Finally, all measures passed the strict Fornell and Larcker (1981) test of discriminate validity. All measures had an AVE estimate that was greater than the squared between construct correlations; therefore the assertion discriminant is supported (see Table 29).

Table 27: Extension Measures-Descriptive Statistics

<table>
<thead>
<tr>
<th>Construct</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attitude Toward Message (AM)</td>
<td>5.60</td>
<td>1.21</td>
</tr>
<tr>
<td>Attitude Toward the Product (AP)</td>
<td>5.51</td>
<td>1.28</td>
</tr>
<tr>
<td>Purchase Intentions (PI)</td>
<td>5.28</td>
<td>1.21</td>
</tr>
<tr>
<td>Credibility (CR)</td>
<td>5.14</td>
<td>1.07</td>
</tr>
<tr>
<td>Engagement (EN)</td>
<td>4.64</td>
<td>1.35</td>
</tr>
<tr>
<td>Commonality (CR)</td>
<td>4.75</td>
<td>1.35</td>
</tr>
<tr>
<td>Helpfulness (HP)</td>
<td>5.82</td>
<td>1.08</td>
</tr>
</tbody>
</table>

Results

As a check on the basic perceptions of the stimuli, two manipulation check measures reflecting the basic character of face-to-face word of mouth versus online electronic word of mouth were analyzed. The first of two check questions is as follows: “I was able to see the recommender’s face.” The second manipulation question is “If I wanted to, I could have a conversation with the recommender.” The questions were randomly displayed among the items and items were summated with a correlation of .77. The results indicated a successful manipulation. Participants in the WOM (M=6.24) condition were significantly higher than
Table 28: Reliability Scores for Essay Three Extension Measures

<table>
<thead>
<tr>
<th>Constructs</th>
<th>Coefficient Alpha</th>
<th>Composite Reliability</th>
<th>Average Variance Extracted</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attitude Toward Message (AM)</td>
<td>.93</td>
<td>.94</td>
<td>.83</td>
</tr>
<tr>
<td>Attitude Toward Product (AP)</td>
<td>.97</td>
<td>.97</td>
<td>.91</td>
</tr>
<tr>
<td>Purchase Intentions (PI)</td>
<td>.90</td>
<td>.92</td>
<td>.73</td>
</tr>
<tr>
<td>Credibility (CR)</td>
<td>.82</td>
<td>.82</td>
<td>.70</td>
</tr>
<tr>
<td>Engagement (EN)</td>
<td>.83</td>
<td>.85</td>
<td>.74</td>
</tr>
<tr>
<td>Commonality (CM)</td>
<td>.87</td>
<td>.91</td>
<td>.77</td>
</tr>
<tr>
<td>Helpfulness (HP)</td>
<td>.82</td>
<td>.84</td>
<td>.73</td>
</tr>
</tbody>
</table>

Note: N = 178

HeWOM (M = 3.075), which was significantly higher than eWOM (M = 2.566) (F = 146.478; p = 0.00). Not only did the mean scores demonstrate the higher perceived face-to-face nature of WOM, but also the relatively higher scores for HeWOM compared to eWOM. This initial result provides a good indication that the social communication constructs worked as planned and will mediate the relationship between WOM Type and attitude toward the message.

Table 29: CFA Discriminant Validity Results

<table>
<thead>
<tr>
<th>Squared Construct Correlations</th>
<th>Average Variance Extracted</th>
</tr>
</thead>
<tbody>
<tr>
<td>AM</td>
<td></td>
</tr>
<tr>
<td>AP</td>
<td></td>
</tr>
<tr>
<td>PI</td>
<td></td>
</tr>
<tr>
<td>CR</td>
<td></td>
</tr>
<tr>
<td>EN</td>
<td></td>
</tr>
<tr>
<td>CM</td>
<td></td>
</tr>
<tr>
<td>HP</td>
<td></td>
</tr>
</tbody>
</table>

Note: The average variance extracted estimates are greater than the squared construct correlations providing evidence of discriminant validity.

Differences among WOM, eWOM, and HeWOM

The first examination was to test for differences between WOM Type (i.e., WOM, eWOM, and HeWOM) on the attitude toward the message measure. These differences were significant (F(2, 177) = 12.304, p = .000) and the mean scores ordered them in the hypothesized order (WOM highest (6.152), then HeWOM (5.583) and eWOM lowest(5.109)) (see Figure 19). Examining the pairwise comparisons among the WOM types shows that all differences among groups were also significant: WOM (6.152) versus HeWOM (t(1, 114) = 3.028, p = .003);
HeWOM (5.583) versus eWOM (5.109) ($t(1, 118) = 2.080, p = .040$) and WOM (6.152) versus eWOM (5.109) ($t(1, 115) = -2.020, p = .047$).

These results provide empirical evidence that HeWOM is a distinct group apart from the other forms of WOM and a unique extension of the eWOM toward WOM; thus, the finding supports H12.

**Mediation by Social Communication**

In a process similar to Essay Two, the mediating effects of Social Communication Theory through its four constructs are examined, this time using SEM instead of PROCESS. A unique characteristic of this analysis is the three conditions (WOM, eWOM, and HeWOM) now being tested for their effects on purchase-related outcomes. Given the three WOM conditions, SEM was modeled using a multi-categorical approach where one of the WOM levels is set as a reference condition, and then each remaining condition is compared to the WOM level separately, as dummy variables (Hayes and Preacher 2014).
In this case, WOM is set as the reference group with HeWOM and eWOM set as the conditions in which to compare. Since there are three levels of WOM, there will be two dummy variables (see Figure 20). The first dummy variable (D1) was coded “1” for the HeWOM level and “0” for both the WOM and eWOM levels. The second dummy variable (D2) was coded “1” for eWOM and “0” for WOM and HeWOM. Once again, WOM is the reference level and therefore will maintain a “0” code for both D1 and D2 (see Table 30). The result is that the estimates for the effects for both HeWOM (D1) and eWOM (D2) are relative to WOM. For example, if the estimated effects are highest for WOM, followed by HeWOM and eWOM as the lowest, then the values for D1 (HeWOM) would be negative, followed by D2 (eWOM), even more of a negative value.

Figure 20: SEM Extended Model
The test of mediation will be assessed by examining the component paths (i.e., paths from WOM Type to the social communication constructs, and then the paths from these constructs to attitude toward the message, followed by an assessment of the total indirect and direct effects. The first step is to assess the overall model GOF (same measures as discussed Essay Three Replication Results section). The model demonstrated a good model fit: \( \chi^2 = 376.674, p = .000; \) Norm \( \chi^2 = 2.79; \) CFI = .92; RMSEA = .10. Per the general rules of thumb presented on page 103 (Hair et al. 2010), the SEM GOF indicators support the inference of an acceptable model fit, using the above-recommended guidelines.

Table 30: Coding for Multi-Categorical Levels

<table>
<thead>
<tr>
<th>Category Label</th>
<th>WOM Level</th>
<th>D1</th>
<th>D2</th>
</tr>
</thead>
<tbody>
<tr>
<td>WOM</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>HeWOM</td>
<td>2</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>eWOM</td>
<td>3</td>
<td>0</td>
<td>1</td>
</tr>
</tbody>
</table>

Hypothesis 13 and Hypothesis 14 examined the component paths of mediation by social communication. In Step 1 the first set of paths test Hypothesis 13 that involves the impact of WOM/HeWOM/eWOM on credibility, engagement, commonality, and helpfulness, which are the social communication constructs (see Table 31). H13 predicted that HeWOM and eWOM in comparison to WOM would have a negative impact (i.e., going from WOM to HeWOM and eWOM resulting in lower values of the social communication constructs) for (a) credibility, (b) engagement, (c) commonality, and (d) helpfulness. This hypothesis is supported, since there were significant and negative paths from WOM/HeWOM/eWOM to (H13a) credibility (D1, \( \beta = -.303, S.E. = .083, p = .000; \) D2 \( \beta = -.537, S.E. = .76, p = .000), \) (H13b) engagement (D1, \( \beta = -.300, S.E. = .077, p = .000; \) D2 \( \beta = -.409, S.E. = .079, p = .000), \) (H13c) commonality (D1, \( \beta = -.400, S.E. = .073, p = .000; \) D2 \( \beta = -.593, S.E. = .073, p = .000) and (H13d) helpfulness (D1, \( \beta = -.296, S.E. = .085, p = .000; \) D2 \( \beta = -.374, S.E. = .082, p = .000). Step 2 examines the pathways from the social communication constructs to attitude toward message. H14 is fully supported since (H14a) credibility (\( \beta = .459, S.E. = .074, p = .001 \)), (H14b) engagement (\( \beta = .793, S.E. = .084, p = .001 \)), (H14c) commonality (\( \beta = .366, S.E. = .087, p = .033 \)), and (H14d) helpfulness (\( \beta = .359, S.E. = .084, p = .014 \)) did promote an attitude toward the message.

In Step 3, full or partial mediation is now determined by testing both the total conditional indirect effect for WOM/HeWOM/eWOM \( \rightarrow \) Social Communication \( \rightarrow \) to each outcome measure and the conditional direct effects with the mediators included. The results indicate that social communication does mediate the path from online WOM Types (D1 and D2), in comparison to offline WOM, to attitude toward the message (D1, \( \beta = -.194, S.E. = .056, 95\% \text{ CI} = -.091 \text{ to } -.413; \) D2, \( \beta = -.328, S.E. = .064, 95\% \text{ CI} = -.213 \text{ to } -.328 \)), which is significant, since 95\% bias-corrected confidence intervals do not include zero. Moreover, the direct effect from WOM/HeWOM/eWOM on attitude toward the message (controlling for social communication) was not significant (D1, \( \beta = .125, S.E. = .154, p = .092; \) D2, \( \beta = .113, S.E. = .183, p = .192 \)). Together, the significant total indirect effect with a non-significant direct effect supports a claim of full mediation. Thus, H13 and H14 are supported in the social communication, and fully
mediate the relationship between WOM Type and attitude toward the message. Table 31 provides an overview of the constituent paths in the mediating hypotheses.

Table 31: Overview of Hypotheses of Social Communication Mediation

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Path</th>
<th>Beta</th>
<th>Significance (p =)</th>
<th>Supported</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Step 1:</strong> Effects of WOM/eWOM on Social Communication Mediating Constructs</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>H13-1a</td>
<td>WOM/HeWOM (D1) to Credibility</td>
<td>-.303</td>
<td>.000</td>
<td>√</td>
</tr>
<tr>
<td>H13-2a</td>
<td>WOM/eWOM (D2) to Credibility</td>
<td>-.537</td>
<td>.000</td>
<td>√</td>
</tr>
<tr>
<td>H13-1b</td>
<td>WOM/HeWOM (D1) to Engagement</td>
<td>-.300</td>
<td>.000</td>
<td>√</td>
</tr>
<tr>
<td>H13-2b</td>
<td>WOM/eWOM (D2) to Engagement</td>
<td>-.409</td>
<td>.000</td>
<td>√</td>
</tr>
<tr>
<td>H13-1c</td>
<td>WOM/HeWOM (D1) to Commonality</td>
<td>-.400</td>
<td>.000</td>
<td>√</td>
</tr>
<tr>
<td>H13-2c</td>
<td>WOM/eWOM (D2) to Commonality</td>
<td>-.593</td>
<td>.000</td>
<td>√</td>
</tr>
<tr>
<td>H13-1d</td>
<td>WOM/HeWOM (D1) to Helpfulness</td>
<td>-.296</td>
<td>.000</td>
<td>√</td>
</tr>
<tr>
<td>H13-2d</td>
<td>WOM/eWOM (D2) to Helpfulness</td>
<td>-.374</td>
<td>.000</td>
<td>√</td>
</tr>
<tr>
<td><strong>Step 2:</strong> Effects of Social Communication Mediating Constructs on Purchase-related Outcomes</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>H14a</td>
<td>Credibility to Attitude Toward Message</td>
<td>.459</td>
<td>.001</td>
<td>√</td>
</tr>
<tr>
<td>H14b</td>
<td>Engagement to Attitude Toward Message</td>
<td>.793</td>
<td>.001</td>
<td>√</td>
</tr>
<tr>
<td>H14c</td>
<td>Commonality to Attitude Toward Message</td>
<td>.366</td>
<td>.033</td>
<td>√</td>
</tr>
<tr>
<td>H14d</td>
<td>Helpfulness to Attitude Toward Message</td>
<td>.359</td>
<td>.014</td>
<td>√</td>
</tr>
<tr>
<td><strong>Step 3a:</strong> Conditional Indirect Effects of WOM/eWOM on Purchase-related Outcomes</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Path</td>
<td>Beta</td>
<td>Significance (95% CI)</td>
<td>Mediation Supported</td>
<td></td>
</tr>
<tr>
<td>WOM/HeWOM (D1) (\rightarrow) SC (\rightarrow) Attitude Toward Message</td>
<td>-.417</td>
<td>-.631 to -.262</td>
<td>√</td>
<td></td>
</tr>
<tr>
<td>WOM/eWOM (D2) (\rightarrow) SC (\rightarrow) Attitude Toward Message</td>
<td>-.610</td>
<td>-.821 to -.433</td>
<td>√</td>
<td></td>
</tr>
<tr>
<td><strong>Step 3b:</strong> Conditional Direct Effects of WOM/eWOM on Purchase-related Outcomes</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Path</td>
<td>Beta</td>
<td>Significance (p =)</td>
<td>Full or Partial</td>
<td></td>
</tr>
<tr>
<td>WOM/HeWOM (D1) (\rightarrow) Attitude Toward Message</td>
<td>.260</td>
<td>.092</td>
<td>Full</td>
<td></td>
</tr>
<tr>
<td>WOM/eWOM (D2) (\rightarrow) Attitude Toward Message</td>
<td>.239</td>
<td>.192</td>
<td>Full</td>
<td></td>
</tr>
</tbody>
</table>

The final analysis of the AIR model involves Hypothesis 15, which predicts the attitude-intention relationship among the purchase-related outcomes in three steps of mediation. Step 1) Attitude toward the Message is predicted to positively impact attitude toward the product (H15a). In step 2, attitude toward the product is predicted to impact purchase intentions (H15b). In step 3, the total indirect and direct paths are assessed for full or partial mediation by attitude toward the product. The results of step 1 support H15a, in that attitude toward the message did positively impact attitude toward the product (β = .89, S.E. = .065, p = .001). H15b, step two, is also supported on attitude, by the product positively impacting purchase intentions (β = .74, S.E. = .064, p = .001). The results of hypothesis 15 support the attitude-intention relationship prediction. Additionally, in step 3, the total, indirect effect for the path from attitude toward the
message through attitude toward the product to purchase intentions was significant (total indirect effects point estimate = .662, S.E. = .052, 95% CI = .560 to .662). The direct effect from attitude toward the message to purchase intentions was still significant, controlling for attitude toward the product ($\beta = .992$, S.E. = .065, $p < .05$). This result suggests that attitude toward the product partially mediates the attitude-intentions relationship since zero is not within the confidence intervals. Attitude toward the message was mediated through attitude toward the product, but it still has some unique variance that directly impacts purchase intentions (see Table 32). This shows that influencing a positive reaction to a message can have many different downstream effects.

Table 32: SEM AIR Mediation Results

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Path</th>
<th>Beta</th>
<th>Significance ($p =$)</th>
<th>Supported</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step 1: Effects of Attitude Toward Message on Attitude Toward Product</td>
<td>H15a</td>
<td>Attitude Toward Message to Attitude Toward Product</td>
<td>.89</td>
<td>.001</td>
</tr>
<tr>
<td>Step 2: Effects of Attitude Toward Product on Purchase Intentions</td>
<td>H15b</td>
<td>Attitude Toward Product to Purchase Intentions</td>
<td>.74</td>
<td>.001</td>
</tr>
<tr>
<td>Step 3a: Conditional Indirect Effects of WOM/eWOM on Purchase-related Outcomes</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Path</td>
<td>Beta</td>
<td>Significance (95% CI)</td>
<td>Mediation Supported</td>
<td></td>
</tr>
<tr>
<td>AM $\rightarrow$ AP $\rightarrow$ Purchase Intentions</td>
<td>.662</td>
<td>.560 to .767</td>
<td>√</td>
<td></td>
</tr>
<tr>
<td>Step 3b: Conditional Direct Effects of WOM/eWOM on Purchase-related Outcomes</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Path</td>
<td>Beta</td>
<td>Significance ($p =$)</td>
<td>Full or Partial Mediation</td>
<td></td>
</tr>
<tr>
<td>AM $\rightarrow$ Purchase Intentions</td>
<td>.992</td>
<td>.000</td>
<td>Partial</td>
<td></td>
</tr>
</tbody>
</table>

Discussion

Essay Two and the replication in this essay clearly and consistently show that traditional word of mouth has a superior impact on consumer attitudes, rather than electronic word of mouth. The purpose of this extension was to determine if electronic word of mouth can be enhanced to have a greater impact, closing the gap between it and traditional word of mouth. Specifically, this study uses the Hyperpersonal Model of Communication and Social Communication Theory as the theoretical lens in which to examine an extended form of eWOM: Hyperpersonal eWOM (HeWOM). Using Hyperpersonal Model of Communication as guiding principle, eWOM was endowed with emotional and interconnectedness cues to humanize the communication effort.

In viewing a plot of the mean scores of WOM, HeWOM, and eWOM (see Figure 21), WOM still had a higher significant difference over both HeWOM and eWOM on all four of the social communication elements. Interestingly, HeWOM was significantly higher than eWOM on credibility and commonality. This result suggests that the participants felt a higher social
presence in the HeWOM condition versus the eWOM condition. Engagement and helpfulness were not significantly different between HeWOM and eWOM. This result might suggest that it would be more difficult to establish a link to others online, even if there is a strong, social presence felt. A future research direction would be to explore factors that would positively influence the perceived engagement and helpfulness of online WOM.

The Hyperpersonalized electronic word of mouth created a more dynamic social communication exchange, which elevated consumers’ attitudes toward the new message form. The main effects of the study bore this out. Hyperpersonal eWOM was significantly higher on attitude toward the message evaluations than eWOM. The mediation analysis supported social communication as the explanatory mechanism.

The methodological contribution is the application of multi-categorical structural equation modeling. This method overcomes the limitations of treating the nominal variable as ordinal or interval, and continues to analyze the data as such (Chandler and Pronin 2012). Another common “fix” this approach avoids is dropping levels in a factor that reduces the variable to a dichotomous form (Werle et al. 2011) or combined multiple levels into two groups in which to compare (Calogero and Jost 2011). The use indicator, or dummy coding, provides a
parsimonious exercise that maintains the richness of the data while providing a more accurate
analysis of multi-category constructs.

The contribution to the marketing literature is threefold: 1) An extended conceptual model
using the Hyperpersonal Model of Communication to increase the efficacy of online WOM
communication (Walther 1996, 2011); 2) An application of the under-researched multi-
categorical structural equation modeling model that overcomes limitations of nominal multi-level
variables (Hayes and Preacher 2014), and 3) the following key managerial implications.

The important managerial implication of this study is that the all-powerful eWOM can be
improved to help practitioners sell more goods and services. For practitioners, this research
provides a collective set of recommendations that will allow managers of e-tail websites (i.e.,
Amazon) to close the gap on the relative difference of WOM versus eWOM through a set of
Hyperpersonal initiatives that should significantly improve the number 1 tool that consumers use
to make an e-commerce purchase on positive eWOM consumer reviews (Lab 42 2012). Adding
emotional cues to increase social presence would increase trust and lower risk perceptions
impacting the source credibility and audience commonality elements of the Social
Communication Theory. Also, adding interconnectedness cues would increase a perceived
social link to others in order to ask questions or see what others thought about the messages.
Based on the results of this research, several implications may be drawn.

One managerial implication could be for e-retailers to add a badge to the message that
would signal the eWOM is not a fake. At present, Amazon has an indicator that verifies the item
was actually purchased, yet doesn’t speak to a competitor’s buying a product to write a bad
review. If Amazon could show that a review or consumer reviewer has not been flagged as a
fake, then this would reduce audience anxiety and increase review and website credibility. Past
research suggests that fake reviews amount to 15% of all eWOM messages (Gartner 2012). With
the recent news about fake reviews on Yelp and Amazon (Segal 2011), consumers may think that
the percentage is even higher. Adding a cue like this may improve consumer confidence in e-
commerce shopping.

A second managerial implication could be for general e-retailers to add a lifestyle
indicator that helps the audience connect more with the experience being recommended in an
eWOM message. Travel websites have already been using indicators to let consumers know if
the trip was business or personal. Including this and other options (e.g., college student,
housewife, married, mother) would improve the social presence of eWOM. This additional
information helps a family of five to see whether they can base their once-a-year vacation plans
on the writings of a college sophomore.

A third managerial implication would be to form a discussion community or link to a
larger online consumer forum, to allow individuals to ask questions regarding products when
they think of purchasing them. This would improve the engagement with potential product
supporters and could be the genesis of a brand love movement. Research has shown that the
mere perception of an interactive community would favorably impact consumer liking of a

A fourth managerial implication would be to add an indicator besides helpfulness to show
the utility of an eWOM message. For example, e-retailers like Amazon could add a sales
indicator that reflects the number of products sold after reading the eWOM post. Right now the
only signal that others found an eWOM useful was the helpfulness percentage. A powerful
addition would be a counter that shows the number of products (e.g., cameras) that were sold
after consumers read the eWOM message. The technology is out there. Facebook currently
CONCLUSION

This research empirically establishes and replicates the higher impact of traditional WOM than eWOM on consumer attitudes, specifically on attitude toward the message. The Social Communication Theory was tested and supported as the underlying mechanism that mediated this relative difference of WOM Type on attitude toward the message. Finally, the Hyperpersonal Model of Communication theory was used to extend the WOM Type towards a third hybrid construct, HeWOM, that reduced this relative difference, providing evidence that eWOM can be enhanced to become more effective.

Future studies could investigate contextual factors that might influence the strength and direction of the WOM Type on consumer attitudes. Factors to consider from the literature include product type (Meuter et al. 2013), website brand (Chevalier and Mayzlin 2006), message quality (Bhattacherjee et al. 2006), timeliness (McKinney et al. 2002), eWOM volume (Gupta and Harris 2010), review type (Xia et al. 2008), and eWOM rating (Lee and Lee 2009). Specific to this study, credibility seems to be a multifaceted construct with attributes that might impact WOM, HeWOM, and eWOM differently. Future studies could further explore empirical credibility across the three WOM Types. Another future direction in this research stream would be to explore the path to purchase using various WOM presentations, including text to speech and visual eWOM.

Finally, there are a few limitations to this research. These studies were designed to control for many factors, including familiarity and eWOM volume. A key benefit to WOM is the audience’s familiarity (e.g., friends, family, co-workers) to the source. By being limited to unfamiliar sources, the impact of traditional WOM may have been reduced. However, it does speak to the power of traditional WOM, in that it still carried significantly more impact than eWOM and HeWOM in this experimental study. Similarly, a key benefit to eWOM is the volume and valence of recommendations found online. Even with unfamiliar sources, there might be a strong sense of security found in the convergence of opinion online. Increasing the number of eWOM messages may reduce the relative difference between WOM and eWOM. This set of studies, as a starting point for future scholars, can replicate the method to examine WOM/eWOM and thus extend into many different areas that impact consumer purchase behavior.
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