Credibility in the Blogosphere:
A Study of Measurement and Influence of Wine Blogs as an Information Source

by

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A dissertation submitted to the Graduate Faculty of
Auburn University
in partial fulfillment of the
requirements for the Degree of
Doctor of Philosophy

Auburn, Alabama
May 14, 2010

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Abstract

The use of online sources for decision information continues to grow among wine consumers. One of these sources is the wine blog, a venue for user-generated content that simulates word-of-mouth (WOM) communication. The growth and influence of wine blogs creates opportunities for wine marketers to use them as part of strategy development.

To facilitate an understanding of wine blogs and their potential influence on consumers' decisions, a conceptual model of the influence of wine blog credibility was proposed. Within this model, this dissertation examined the influence of the credibility of wine blogs on wine blog readers' behavioral intentions (e.g., purchase), as mediated by trust and moderated by involvement. The appraisal of wine blog credibility was characterized as tri-dimensional – assessed by characteristics of site, message, and source.

The purpose of this research was to develop credibility scales for wine blogs (site, message, and source) and test the influence of a wine blog's credibility on wine consumers' behavioral intentions. Phase 1 implemented online focus groups to gather characteristics of the wine blog that signal credibility to the reader. Centering resonance analysis was used to generate items for scale development. Phase 2 used online survey

data to validate the proposed scales and test the influence of a wine blog's credibility on a reader's intentions as specified in the model.

       The research findings revealed that although all three credibility dimensions demonstrated a positive relationship and statistical significance with wine blog trust attitude, only source credibility indicated practical significance. In addition, the data supported the hypothesized influence of wine blog credibility on the intention to follow recommendations and to continue blog participation as mediated by trust. However, the findings indicated that source credibility was the main contributor to the proportion of variance in both intentions. Furthermore, the data did not fully support the central versus peripheral routes hypothesized according to the elaboration likelihood model (ELM). The hypothesized peripheral route of source assessment on trust was predictive for individuals with both levels of involvement and substantively more predictive than either of the other two dimensions (site assessment as peripheral route, message assessment as central route).

Acknowledgements

     I would like to thank all of my committee members (Dr. Michael Solomon, Dr. Wi-Suk Kwon, Dr. Sandra Forsythe, and Dr. Gwynedd Thomas) for their assistance and suggestions during this process. I offer special thanks to Dr. Kwon for her methodological guidance and emotional support. I am greatly indebted to Dr. Solomon who always supported me with words of wisdom, guidance, and encouragement as a mentor. Further, I could not have achieved my objectives without the interest, suggestions, and help from the wine blogging community. I also extend undying gratitude to Robert, my sounding board that endured relentlessly, Jessica and Tyler for their confidence and patience, my parents for their push, and especially my late grandmother, Ina Laverne King, who instilled in me forever "don't ever give up."

Table of Contents

List of Tables

List of Figures

Chapter 1: Introduction

Until October, 2009, the Federal Trade Commission (FTC) had not revised the (1980) Guides Concerning the Use of Endorsements and Testimonials in Advertising (Guides). One of the revisions in the Guides established new guidelines of disclosure for bloggers when "material connections" (payment or free products) are part of bloggers' evaluations. The FTC felt that viral and social media marketing have grown in prevalence and have erased consumer skepticism (Dunaway, 2010), which helps consumers sniff out the authenticity of the source. Without disclosure, consumers (and the FTC) must speculate about the relationship between the producer, advertiser, and reviewer (Pellechia, 2009). When consumers do not believe that bloggers have received some material compensation, the blog messages can be deceptive or misleading to consumers due to an erroneous perception of fair and unbiased reviewing. Therefore, the guidelines stipulate that bloggers must give the details surrounding the relationship of the blogger with a company or product and disclose any form of remuneration associated with a review. Interestingly, the new revisions do not apply to traditional media due to independent editorial responsibility.

The FTC's decision to specify blogs in the revision of the Guides indicates the perceived power and influence of the information in the blog. It also brings attention to the means consumers use to evaluate the credibility of blogs and how consumers are

influenced by the posted content. The relevance of the FTC revisions to this project is best articulated within the Guides: "…to the extent that consumers' willingness to trust social media depends on the ability of those media to retain their credibility as reliable sources of information…" (FTC, 2009, p. 11). While it is true that trust in a social media information source (such as a blog) is dependent upon a positive evaluation of credibility, disclosure of material connections is but one indicator that signals it. Other indicators of blog credibility are currently unexplored. To this end, this dissertation focuses on the assessment of the credibility of blogs with the goal of developing and validating a reliable measure of blog credibility.

Blogs as an Information Medium

According to Rebecca Blood (2002), the storage capabilities of the Web motivated the creation of blogs. The web made it possible to dump a large amount of information into one large information warehouse. However, finding relevant information on the web was an overwhelming task until content links and filters were developed to allow consumers to search for pertinent information. Blogs contain these links and filters which make them easily searchable with a few strokes on a keyboard.

Blogs cover a variety of topics and represent a virtual warehouse of searchable information. Blog information search has not only added a rich informational source to existing sources of information but has also provided a new stream of information research. Although considerable research on the consumer blogosphere has been conducted, none has specifically focused on the perceived credibility of the blog as an information source. Therefore, this study examines the characteristics of a blog that helps an individual develop trust that leads to specific behavioral responses (follow blog

recommendations, spread word-of-mouth about a blog, and continue to participate with a blog).

What are Blogs?

Blogs are technically websites. However, most websites are static (e.g., .com, .edu, .info), requiring information change when there is a shift in focus, definitions, or strategy (e.g., addition of a new product, service, procedure, or rating). In contrast, blogs are dynamic, independent sources of information. They are updated with commentary, descriptions of events, graphics or video on a regular basis.

Blogs are also a type of media channel, classified as social media. The term media refers to any format used to convey information. In traditional media such as newspapers, radio, and television, journalists produce content based on journalistic standards (e.g., validate sources, omit opinion). The content is disseminated through a one-to-many format. In social media, individuals create content (user-generated content) and disseminate it through social interaction. Blogs encourage interaction with readers through comments. This conversation is the primary focus of the blog platform. However, information via blogs is not always verified by journalistic standards and the task of evaluating the credibility of and trust in this information is left to the receiver of the information, the blog reader.

There are many types of blogs such as personal, corporate, or news. Roughly 70% of blogs are personal and maintained by a single author (Technorati, 2008). Personal blogs are written by ordinary individuals with ordinary passions. For example, a longstanding topic domain is Mommy blogs (Thompson, 2007), just ordinary moms sharing their advice via the WWW. Their content includes valuable information (kudos

or criticisms) on products and services which range from cars to nail polish. Personal blogs allow easy access to new and archived content and are particularly important because they merge technology with personal communication. These blogs give accessible breadth and depth of information sharing in the blogosphere (WWW). They allow millions of people to easily post their ideas and millions more to read the posts, comment on them, and act upon the suggestions that the posts offer. Therefore, the blog is an online outlet for word-of-mouth (WOM) communication. Although the potential of market conversations initiated by consumers in the blogosphere is widely speculated, the shift of communication power to the consumer is evident. Thus, the blog has the potential to alter how consumers search for decision information.

The number of blogs have grown because of easy-to-use publishing tools (e.g., Google®; eBlogger.com®; WordPress.com®; MovableType.com®) and it appears that they are widely accepted as an information exchange channel. As of the 2008 State of the Blogosphere report, Technorati® (WWW search engine for blogs) had indexed over 133 million blogs published in over 120 languages with a reported 346 million worldwide blog readers. However, it is likely that the amount of experience readers have with the blog environment will influence how blogs are evaluated and used.

What began as a mostly American media platform has emerged into a global phenomenon (Technorati, 2008). The proliferation and diversity of blogs makes them impossible to study as a whole. Therefore, this study focused on one specific product/blog domain (wine blogs) with the hope that the findings prove useful for future comparative studies of differing topic domains.

Why Wine Blogs?

Wine blogs are chosen for two important and interrelated reasons. First, the social context of wine motivates people to seek information in order to make a correct choice about wine or the lifestyle choices surrounding it. Knowledge about wine creates a sense of correctness in wine choice, and people are culturally conditioned to believe that some individuals are more knowledgeable than others. Thus individuals who are less knowledgeable about wine often need recommendations about appropriate wine choices (e.g., wine/food pairing, red vs. white). They tend to seek information from a perceived credible source. Further, there are over 5,000 different types of wine grapes. When coupled with the number of labels producing wine from the various varieties, the availability of choice is daunting. Since wine is an experience-type product, it creates an opportunity to study a constant consumer search for information. This information ranges from wine evaluation (e.g., ratings) to purchase recommendations (e.g., discussions that are part of the culture of wine), all of which are used by even the most wine savvy individuals. Since this study focuses on blogs as an information source, repeated sharing and seeking of information is considered a desirable component for the study. The community of wine blogs naturally contains this exchange.

Second, the current study examines the influence of a wine blog as an information source. The premise of this study is that wine blogs are evaluated by individuals for believability and trusted for various types of behavioral response (e.g., purchasing wine reviewed in post). Kozinets (2002) stresses that when considering a suitable online community to study, it is important for the interaction within the community to provide the answers to the major research questions. An environmental scan of wine blogs notes

multiple behavioral responses, evidenced within posted comments. Further, because wine is socially charged, trust is an important aspect of the behavioral response. Therefore, the wine blog domain appears to provide a good opportunity to examine the variables proposed in the model for this dissertation.

Purpose of Study

Given the exponential growth of blogs, it is important to understand their potential impact on consumers' information search and resulting behavioral response. To facilitate this understanding, a conceptual model of the influence of wine blog credibility on behavioral intentions as mediated by trust and moderated by involvement is proposed (see Chapter 3). Specifically, this dissertation seeks to answer the following research questions:

1)   What are the characteristics of the wine blog that individuals use to assess site, message, and source credibility?

2)   What are reliable and valid measures of the three dimensions of perceived wine blog credibility (site, message, and source)?

3)   How do evaluations of wine blog site, message, and source credibility impact trust in a wine blog?

4)   How does trust in a wine blog influence behavioral intentions?

5)   How do different levels of involvement associated with wine and wine blogs impact the relationship between credibility and wine blog trust?

The research questions were addressed in two phases. Phase 1 asked wine blog participants (writers and readers) how they perceive the credibility of a wine blog based

on an evaluation of site, message, and source characteristics. Focus groups were conducted through SKYPE™ Internet Telephony system. After the data were analyzed through graphical textual analysis using Centering Resonance Analysis, a credibility scale for each dimension was proposed. In Phase 2, the proposed measures of perceived wine blog credibility were purified and validated. In addition, the model encompassing relationships between wine blog site, message, and source credibility beliefs, wine blog trust attitude, and wine and wine blog behavioral intentions was tested in a structural equation model. The moderating effects of wine and wine blog involvement on the relationship between perceived credibility and trust attitude were also examined. The online participants were solicited through wine blog posts and Twitter® tweets and the data were collected using an online survey.

This research contributes to our understanding of credibility and trust of user-generated content and related behavioral intentions. Further, it explores new methodologies for data collection and analysis particularly suited to the social media environment. Finally, it provides a broad view of how marketers might take advantage of the power of the blog, based upon credibility and trust.

Chapter 2: Literature Review

Fishbein and Ajzen's (1975) multi-attribute model of attitude provides the conceptual framework to study the credibility beliefs and trust attitude effects of the wine blog on wine/wine blog behavioral intentions. Three dimensions of wine blog credibility (site, message, and source) are discussed as cognitive belief predictors of affect-based trust attitude that leads to behavioral intentions (follow product purchase or non-product recommendations, engage in word-of-mouth communication about the wine blog, and continue to interact with the same wine blog). This study also uses Petty and Cacioppo's (1981) elaboration likelihood model (ELM) to explore the moderating effect of wine involvement and wine blog involvement on the relationship between credibility beliefs and trust.

Consumer Decision Model

A heuristic step model of the consumer decision process can help explain the complexities of consumer decision making (see Figure 1). The literature does not specify the medium through which a consumer proceeds through the steps; thus it is appropriate to apply the framework to online venues (van der Heijden, Verhagen, & Creemers, 2002). However, van der Heijden, et al. (2002) state that two issues differentiate between the online and offline consumer. First, the individual must interact with technology. Second,

Figure 1. Stages in Consumer Decision Making Process (CDP) (Solomon, 2007, p. 305)

| Problem Recognition | → | Information Search | → | Evaluate Alternatives | → | Product Choice | → | Outcomes |
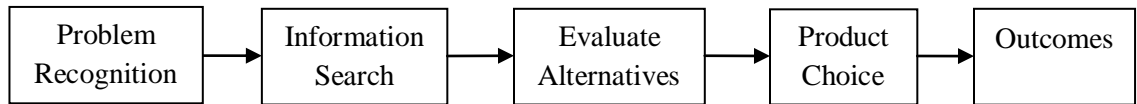
a greater degree of trust is required to engage in behavior in the online environment due to the absence of face-to-face data that normally allow participants to gauge credibility (Cassell & Bickmore, 2000).

The complexities of the consumer decision process have led many researchers to take a componential or micro view of decision making. This micro view typifies most current consumer decision studies (e.g., Bruner, 1987; Erdem & Swait, 2004). This study focused on the online information search stage and how it relates to behavioral outcomes such as, but not limited to, purchase.

Consumer information search behavior encompasses two types of prepurchase search: internal and external information search (Solomon, 2007, p. 310). An individual may possess adequate knowledge to make a purchase-related decision without seeking external information. This internal information comes from prior experience with or exposure to a product and is retrieved by a search of memory. When a buyer does not have adequate information to make a decision, an external information search is necessary. Traditional research identifies the sources of external search as (a) personal, word-of-mouth sources such as family, friends, and co-workers; (b) independent sources such as Consumer Reports®, product or service experts, and the World Wide Web (the web) bulletin boards and, (c) market-oriented sources such as company websites and advertising (Sheth, Mittal, & Newman, 1999). Based on the economics of information theory, the more information one has regarding a decision choice, the better the decision outcome (Stigler, 1961). However, this does not mean that the individual will search endlessly for information. Due to diminishing returns, the motivation of an information

seeker will decrease after a certain level of result is obtained (Goldman & Johansson, 1978).

In addition to the need for information gathering, there is a need for tools to filter the information. Individuals seek information for various reasons – knowledge, empowerment, even support – but by and large meaningful information is that which reduces the uncertainty of decision outcomes for the seeker (Belkin, 1978; Buckland, 1991; Dervin, 1977). Therefore, individuals look for good information to make their decisions, that is, information they can trust. Much of the vast daily information that individuals encounter is filtered out. One of these filters is the credibility of the information (Wathen & Burkell, 2002). As a filter, credibility allows consumers to evaluate the believability of the information based on their personal perspectives (Stanford, Tauber, Fogg, & Marable, 2002). Credibility is the validation that allows individuals to trust information enough to actually use it. Since credibility influences the impact of the message (if and how it will be used), it is important to understand how people decide what to believe (Wathen & Burkell, 2002).

Wine Information Search

The Role of Perceived Risk in Wine Purchase

Raymond Bauer (1960) was the first market researcher to identify the role of risk in the consumer's purchase decision process, introducing the concept of perceived risk as a subjectively determined expectation. The concept of perceived risk is generally defined in terms of consumers' uncertainty in decision-making along with the potential adverse consequences of their actions (Solomon, 2007, p. 316). Consumers view wine as a complicated and even threatening product (Johnson, 2004). They often have

11

considerable anxiety and insecurity when purchasing it (Gluckkman, 1990). Mitchell (1987) found that consumers perceive risk in wine purchasing in the following order: 1) functional (how it tastes); 2) social (perceptions from family and friends); 3) financial (the price/value); and 4) physical (hangover or other effects). In order to make a decision, the consumer will attempt to bring the total level of perceived risk to a tolerable level by some reduction strategy. Schiffman and Kanuk (2007, p. 188) identify six of the more common risk-reducing strategies: 1) information seeking, 2) brand loyalty, 3) brand image, 4) store image, 5) price, and 6) reassurance.

Risk Reduction Strategies in Wine Purchase

Of the six generic risk reduction strategies, information seeking is chosen most frequently in wine purchase (Mitchell & Greatorex, 1988). Information may be collected "from written descriptions, taste codes, wine lists, and especially more informed sources such as family or friends" (Mitchell & Greatorex, 1988, p. 35) or from the opportunity to taste the wine before purchase (Johnson, 2004). It is unlikely that individuals will have the opportunity to taste every wine before a purchase; thus they need to rely on recommendations from others who have had the opportunity. Since the interactive social network of wine blogs conveys a sense of community similar to friends or family, it seems plausible that individuals who use the Internet will search this online surrogate for information before purchase.

Perceived Risk and Information Search

Much of the research in support of the effects of perceived risk focuses on information handling (Taylor, 1974). It is generally understood that information search mitigates risk (Cunningham, Gerlach, Harper, & Young, 2005). Therefore, this study

12

assumes that when individuals have more information about their wine purchase, they are better able to predict the consequences of their decisions (Johnson, 2004) and their level of anxiety due to risk is reduced. However, it is not just a compilation of the information that reduces risk. Rather, it is information that comes from a trusted source – one that is validated as credible. Consequently, this study posits that the wine blog can help the reader make informed choices about wine-related decisions (e.g., which wine to purchase, proper wine storage) when it is trusted as a credible information source. The importance of this rationale will become further evident later in this chapter within the behavioral intentions discussion.

The Blog as an Information Source

The Web as an Information Source

The continuing Pew Internet & American Life Project (2008) indicates that the web is the first place many individuals turn to when they are looking for information and the majority of them (70%) find what they are looking for when they search online. Why the shift in behavior? The Web provides greater access to information sources than ever before (Peterson & Merino, 2003). As an aggregator of information, the Web increases the total volume of information available to an individual anytime and anywhere (Peterson, Balasubramanian, & Bronnenberg, 1997). Flanagin and Metzger (2001) observe that the perceptions and usage habits of media are evolving and the Web is used to obtain information more than magazines, newspapers, books, television, e-mail, telephone, or face-to-face communication. The Web also facilitates interaction between users (Kulviwat, Guo, & Engchanil, 2004), thus it is a tool for interpersonal information exchange.

Online Interpersonal Communication

Among the various external information sources that are available to individuals, interpersonal sources (word-of-mouth communication – WOM) appear to play an important role in decision choice (Brown & Reingen, 1987; Herr, Kardes, & Kim, 1991; Mourali, Laroche, & Pons, 2005). In fact, WOM affects decision-making more than any other communication channel (Bickhart & Schindler, 2001; Godes & Mayzlin, 2004). WOM communication is perceived to be more trustworthy than other channels of information (Derbaix & Vanhamme, 2003) and is the preferred information source when risk is involved (Ardnt, 1967; Cunningham, 1967; Ha, 2002; Hennig-Thurau & Walsh, 2003). The credibility of the source plays an important role in the influence of WOM (Bansal & Voyer, 2000; Gilly, Graham, Wolfinbarger, & Yale, 1998).

The Web has broadened the WOM communication environment to include word-of-mouth on the Web (electronic word-of-mouth – eWOM). Web tools such as e-mail, chat rooms, instant messaging, bulletin boards, discussions forums, and blogs are carriers of WOM on the web. Through these tools, individuals freely share information and opinions on any topic. Thus the Web is a hybrid channel of communication with applications that offer the broad reach of mass communication and also the persuasive qualities of interpersonal communication. Phelps, Lewis, Mobilio, Perry, and Raman (2004) argue that the speed, convenience, one-to-many reach, and absence of face-to-face human pressure make online WOM more influential than its traditional offline counterpart. This computer-mediated communication has attracted researchers' interest in online word-of-mouth (WOM) communication (Sun, Youn, Wu, & Kuntaraporn,

2006). Previous studies (e.g., Henderson & Gilding, 2004) have revealed distinct characteristics of online communication that set them apart from traditional WOM.

Traditional vs. Online WOM

New technologies that facilitate communication on the Web have caused paradigm shifts in WOM communication from oral to technological, acquaintances to strangers, spontaneous to supported, and local to worldwide (Godar, 2005). WOM has been traditionally conceptualized as a spontaneous oral exchange about a good or service between people who communicate directly in real life. (Ardnt, 1967; Stern, 1994). However, traditional research did not restrict the definition to face-to-face encounters but also included person-to-person oral conversations via alternative modes of communication such as the telephone (Godar, 2005). This person-to-person communication has expanded to include technological methods such as e-mail and more public venues such as the blog. These new venues require interaction with technology to access the WOM communication. Traditionally, WOM communication was considered to be between individuals who knew each other, typically friends or relatives (Ardnt, 1967; Bickart & Schindler, 2001). In contrast to the personal interaction of oral exchange, many of the available platforms on the Web are public which make the opinions of strangers available to anyone willing to read them. Traditionally, WOM has been viewed as spontaneous communication between individuals. This WOM communication was oral and vanished as soon as it was uttered except for what was remembered by the speaker and the receiver. The traditional temporal exchange has no record, but the technologies of eWOM permanently store the communication in cyberspace. Permanence is very important for information search. The conversation is

continuously accumulated on the Web as text and is available for search. The text is searchable by topics or tags via search engines which easily facilitates specific search. Most importantly, the Web shifts the geography of WOM communication from local to global. Formerly, the spread of WOM was limited. The Web accelerates eWOM communication, and because it is a virtual conversation warehouse, the eWOM is available whenever and wherever needed. With the Web, the diffusion of eWOM is limitless.

Blogs' Impact on Search Behavior

The digital, interactive, and conversational blogs on the web create an information warehouse that is different from traditional information sources and other web information sources (e.g., company website). Even the search tools available on the web have considered this difference by offering blog search engines subsumed within major web search tools like Google®, Yahoo®, Bing®, and Lexis Nexis®. Yet, individuals might access a blog without realizing it through a query on a search engine. As individuals have greater access to more diverse information sources such as the blog, previous control mechanisms (like professional gatekeepers, editorial review) that authenticated credibility may not be present or as effective. The responsibility of credibility evaluation is shifted to the receiver of the information. Further, the content posted by an individual blogger is available to anyone who seeks it, making it an open conversation that is not one-to-one, but one-to-any. Thus blog communication occurs largely between strangers within cyberspace. The blog reader is searching media with no gatekeeper, written by an author he does not know. Therefore, the user must make a

credibility evaluation of the wine blog based on observable characteristics before deciding to trust the information.

Wine Blogs as an Information Source

Wine blogs are an interpersonal source of information, and the wine blogging community creates an eWOM network (see Hoffman & Novak 1996; Kozinets, 1999). This rapidly expanding wine blog community amplifies the reach of eWOM communication and creates an abundant source of information and advice for consumer decision making (Thorson & Rodgers, 2006). As search habits continue to shift, it appears that wine blogs will be a preferred source of wine information and advice.

Stanford et al. (2002) found that trusting the information on a website is the number one criterion for choosing one website over another. Trust is determined by an assessment of the attributes of the wine blog including its format, its content, who is saying it, and what, if any, are the motives for saying it. Since information is used for decision making (see, Figure 1), it is logical to conclude that when a wine blog user perceives a particular wine blog to be credible and decides to trust it, the wine blog will impact the user's behavioral intentions. As the crux of this present study, the causal connection between credibility characteristics, trust, and behavioral intentions is examined through an attitude framework that is discussed in the following section.

Study Framework Development

Attitude research forms the basis of a plethora of marketing studies for at least two major reasons (Mitchell & Olson, 1981). First, attitudes are considered stable and enduring learned predispositions to respond favorably or unfavorably toward an object (Solomon, 2007). They are generally recognized as latent constructs that guide or

17

influence consumers' behavior; thus they are often used in research to predict behavior (e.g., Ajzen & Fishbein, 1980; Bagozzi & Warshaw, 1990; Fishbein and Ajzen, 1975; Mitchell & Olson, 1981; Rosenberg & Hovland, 1960). Second, several theoretical models of the attitude construct have been provided by social psychology (e.g., Ajzen & Fishbein, 1980; Bagozzi & Warshaw, 1990; Edell, J. A. & Burke, M. C., 1987; Fishbein, 1967; Fishbein & Ajzen, 1975; Rosenberg & Hovland, 1960).

The tricomponent attitude (TCA) model is credited to Rosenberg and Hovland (1960) and is the traditional approach to study attitudes (see Figure 2). Attitudes are comprised of cognitive, affective, and conative components. Cognition refers to a person's knowledge and the resulting perceptions that are acquired through personal experiences and other sources. Affect refers to a person's feelings or emotions toward a particular attitude object. It is an emotional response that enhances a willingness to be vulnerable (Young, 2006). Conation refers to the person's likelihood of acting in a specific way to an attitude object. Most often it is understood as a person's intention to do something such as purchase a product or act upon the advice of another. The TCA model assumes individuals behave in a rational manner; thus there is consistency between beliefs, feelings, and intentions. For example, a woman is in the market for a new vehicle and her personal relevance regarding car choice pertains to safety. She evaluates vehicle information and perceives that a Volvo is the safest car in the market in her price range. She develops strong feelings toward the car for the security that she perceives the car exhibits and intends to purchase it when her bonus comes due next month. She has a positive judgment of the Volvo; thus it is expected that the woman will indeed purchase the Volvo instead of a vehicle that she considers to be stylish but unsafe.

Figure 2. Schematic conception of the tri-partite nature of attitudes from Rosenberg and Hovland (1960)


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                                                    ┌──────────────────────────────┐
                                                    │          AFFECT              │
                                                    │                              │
                                                    │ Sympathetic nervous responses│
                                                    └──────────────────────────────┘

┌──────────────────────┐      ┌──────────┐          ┌──────────────────────────────┐
│      STIMULI         │      │          │          │         BEHAVIOR             │
│                      │ ───▶ │ ATTITUDE │ ───▶      │                              │
│ Individuals: social  │      │          │          │ Overt action                 │
│   issues             │      │          │          └──────────────────────────────┘
│ social groups; objects│     └──────────┘
└──────────────────────┘                            ┌──────────────────────────────┐
                                                    │         COGNITION            │
                                                    │                              │
                                                    │ Perceptual responses         │
                                                    └──────────────────────────────┘
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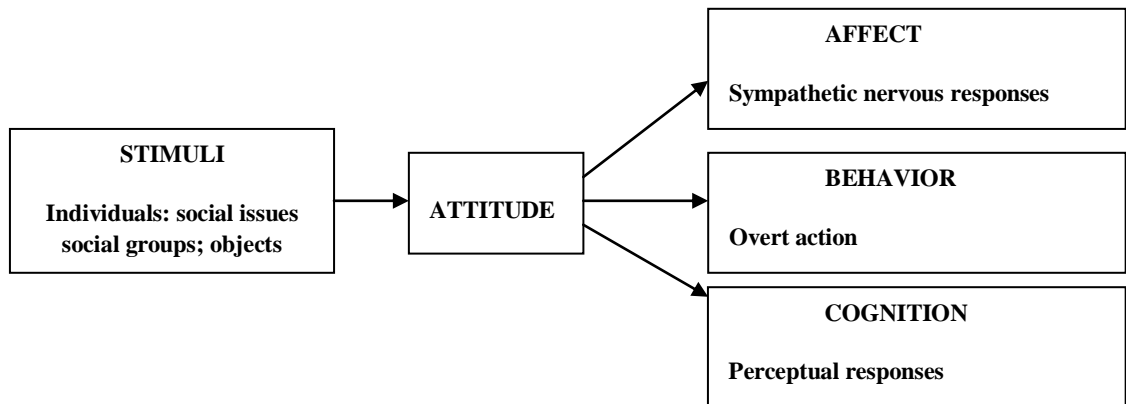
In contrast to the tricomponent conceptualization of attitude (TCA), Thurstone (1931) argued that attitude's distinguishing factor is its evaluative nature – its affect for or against something. Similarly, Fishbein and Ajzen (1975) reserved the term attitude for the affective category with information processing underlying its formation. Beliefs are regarded as the cognitive informational building blocks upon which attitude, intentions, and behavior are ultimately determined. If beliefs associate favorable attributes with the object, the attitude will tend to be positive. Likewise, a negative attitude will be based primarily on negative attributes. Further, an attitude is not necessarily formed on the basis of any one belief, but rather corresponds to a set of beliefs that individually may be positive or negative. For this reason, different individuals may possess a similar attitude toward something, yet differ on their beliefs about it. Similarly, attitude is related to various behavioral intentions and these intentions indicate a certain amount of affect toward the attitude object. Therefore, a favorable attitude leads to a set of intentions that are also favorable. Behavioral intentions are viewed as corresponding to a particular behavior; and barring some unforeseen hindrance, individuals should perform the behaviors they say they intend to perform.

Fishbein and Ajzen (1975) argue that viewing attitude as a unidimensional view of affect does not negate the importance of cognition and conation. Rather, cognition as beliefs and conation as behavioral intentions should be studied as independent phenomena related to attitude and behavior. Therefore, beliefs are regarded as the determinants of attitude and behavioral intentions are regarded as the consequences of attitudes, reflected in the causal relationship of Figure 3.

Figure 3. Conceptual study framework relating beliefs, attitudes, and intentions with respect to a given object from Fishbein and Ajzen (1975)

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┌─────────────────┐      ┌─────────────────┐      ┌─────────────────────┐
│  Beliefs about  │      │ Attitude toward │      │     Behavioral      │
│    Object X     │ ───> │  using Object X │ ───> │   Intentions with   │
│                 │      │                 │      │  respect to Object X│
└─────────────────┘      └─────────────────┘      └─────────────────────┘
```
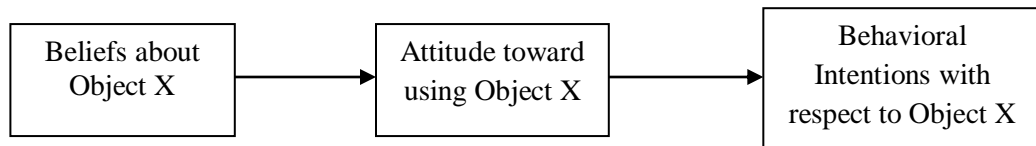
A survey of the literature indicates that the credibility of an information source influences trust that leads to various behavioral outcomes. Trust is a necessary condition to engage in various behavioral acts when the outcomes of those acts are uncertain. Trust, in this sense, is a summary evaluation of favorableness culminating from beliefs about the wine blog. Therefore, it is reasonable that the present study be based upon the attitude framework. Following the attitude framework of Fishbein and Ajzen (1975), this study also conceptualizes attitude as affective. The attitude is affective trust in a wine blog and the attitude object is the most recently visited wine blog accessed as an information source. The attitude of trust is developed through a cognitive evaluation of the credibility characteristics of a wine blog, thus cognitive trust is captured in credibility. The consequence of the attitude is the behavioral intention to engage in wine-related or wine blog-related behaviors such as (a) follow recommendations (purchase or other wine-related advice), (b) share word-of-mouth communication about the blog, and (c) continue to participate in the wine blog. Figure 4 depicts the conceptual framework for the present study of wine blogs. It illustrates the relationships of credibility beliefs, trust attitude, and behavioral intentions. As previously noted, attitude is related to beliefs that may differ between individuals. This study postulates that the amount of cognitive processing in credibility assessment that individuals are willing to undergo in their decision to trust a wine blog for information will differ due to their involvement with wine and wine blogs. Therefore, the model also reflects the moderating role of wine involvement and wine blog involvement in the relationship between credibility beliefs and trust attitude.

The application of the attitude framework in the present study requires an elaboration of the constructs that are developed (wine blog site, message, and source

Figure 4. Conceptual framework relating beliefs, attitudes, and intentions, moderated by involvement, with respect to a wine blog (Fishbein & Ajzen, 1975)
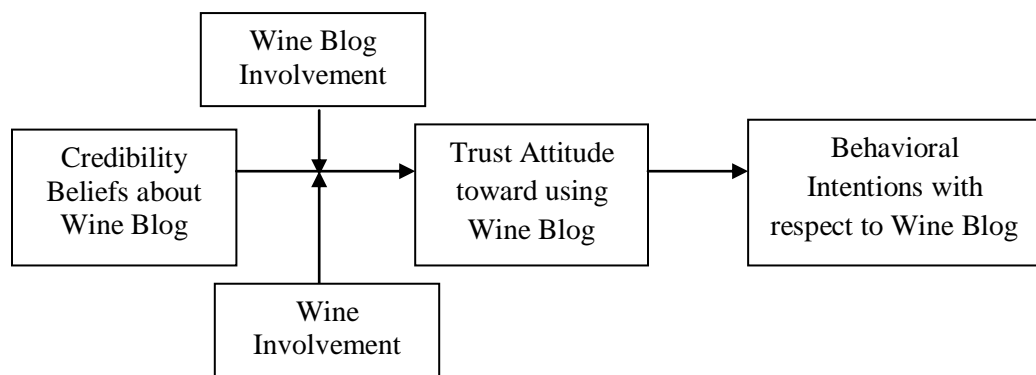
credibility) and those that are adapted in the causal study model. These constructs include wine blog site, message, and source credibility beliefs, trust, behavioral intentions, and involvement. Table 1 contains each of the constitutive definitions for the constructs along with the sources from which they are derived.

Credibility Beliefs (Antecedents/Independent Variables)

Credibility is often defined as synonymous with believability (Burbles, 2001). Credibility beliefs stem from the evaluation of the attributes of an attitude object that result in perceptive knowledge guiding feelings and action (Solomon, 2007, p. 237). In this sense, credibility beliefs result from a cognitive process. For this study, credibility beliefs are conceptualized as the result of an assessment of the attributes of a particular wine blog used as an information source. An individual looks for observable factors that corroborate the credibility of the wine blog. This assessment helps the blog user to determine if the blog can be trusted for information. Since the blog reader is looking for reliable information, the issue of trusting the blog is rooted in credibility (Van House, 2004).

Although different in meaning, the terms credibility and trust are often erroneously interchanged in academic and professional literature because they hold related meanings. However, at closer observation the distinction between credibility and trust relates respectively to believability and dependability (Fogg et al., 2003). In this study, when the wine blog is considered believable, it is dependable for use. Therefore, credibility is not trust itself, but provides a reason to trust. This notion of credibility as an antecedent to trust is supported in the literature (e.g., Cugelman, Thelwall, & Dawes, 2008; Sichtmann, 2007; Wakefield & Whitten, 2006). In a study of social marketing,

Table 1

Constitutive Definitions of Variables in Study

Construct	Constitutive definition	Source
Wine blog site credibility characteristics	The technical and aesthetic features of the wine blog site (e.g., load speed, graphics) that influence the believability of the wine blog.	Metzger, Flanagin, Eyal, Lemus, McCann, 2003
Wine blog message credibility characteristics	The degree to which and individual perceives the wine blog to be believable based on the characteristics of the wine blog content (e.g., perceived quality).	Slater & Rouner, 1996
Wine blog source credibility characteristics	The characteristics of a particular wine blog communicator that influence the believability of the wine blog (e.g., expertise or concern for audience).	Hovland, Janis, & Kelley, 1953
Wine blog Trust Attitude	An affective state toward the use of a particular wine blog emerging from the perceptions of the characteristics of the wine blog.	Zahedi & Song, 2008
Wine blog Behavioral Intentions	A behavioral intention to engage in a behavior suggested by or resulting from interaction with a wine blog. [Perceived risk is assumed to be present necessitating trust and assumed to be mitigated by trust upon intention to engage in behavior].	Mayer, Davis, & Schoorman, 1995
Involvement	A motivational state that drives an individual's overt behavior (e.g., shopping, cognitive processing) and is determined by the degree to which an individual perceives an object of interest to be personally relevant	Celsi & Olson, 1988
Wine Blog Involvement	Participation in wine blogs (writing, commenting, and/or reading) due to perceived personal relevance and importance of wine blogs.	Celsi & Olson, 1988
Wine Product Involvement	Purchase of, consumption of, or information seeking about wine due to perceived personal relevance and importance of wine.	Celsi & Olson, 1988

Cugelman et al. (2008) found that credibility had a significant association with trust that led to an intention to engage in campaign efforts. Using face-to-face interviews, Sichtmann (2007) found that credibility had high explanatory power in an analysis of the antecedents of trust in a corporate brand. Wakefield and Whitten (2006) also found support for the positive relationship between credibility and trust when applied to an e-retailer environment.

The study of credibility began with a focus on the influence of persuasive speakers on attitude change (Self, 1996). A research team at Yale University initiated a research program to develop a systematic theory of persuasion based on the evaluation of a source's influence on the change of attitude in a message recipient (Lowery & DeFleur, 1995). These studies led to the pervasive two-dimensional conceptualization of source credibility, expertise and trustworthiness (Hovland, Janis, & Kelley, 1953; Hovland and Weiss, 1951). The Yale Studies stimulated an interest in how message recipients perceived different communicators (McCroskey, 1966) which motivated researchers to explore further the dimensions of source credibility.

The credibility research stream was extended as communication theorists shifted their focus from information to media (channels). The findings about the credibility evaluation of media included characteristics such as objectivity, accuracy, fairness, and lack of bias (Gaziano & McGrath, 1986). The next progression was to channel effects such as the differences in the aforementioned media characteristics between newspapers and television (Newhagen & Nass, 1989). Notwithstanding the differing conceptualizations and measurement of the credibility construct, these communication

researchers found that credibility is an important concept in determining the influence of available information and the media sources that carry the information.

Digital communication theorists have extended the concept of credibility to digital information evaluation, initiating a renewed interest in message, sources, and media (e.g. Flanagin, & Metzger, 2000; Johnson & Kaye, 1998, 2000; Kim, Weaver, & Willnat, 2000). These digital theorists have approached web credibility study at three levels: 1) evaluation of the web, measured at the media level comparing web credibility to other channels (TV, newspapers); 2) evaluation of the website, measured at the source level, and 3) evaluation of web information (Rieh & Danielson, 2007). However, it is often unclear which of the objects of evaluation are actually being assessed. For example, Rieh and Danielson (2007) argue that a web site is viewed as the source, thus credibility should capture trustworthiness and expertise. Fogg and Tseng (1999) argue that a web site is a technology, thus credibility should also include world feel, ease of use, and tailoring – attributes more directed at the physical site. These discrepancies of conceptualization lead to confusing and conflicting conclusions. This study seeks to specify the conceptualization of the dimensions of the blog (see constitutive definitions, Table 1) and how these relate to the evaluation of credibility of a wine blog. The credibility construct for the study is hypothesized to contain the traditional evaluative dimensions from the literature (media, message, and source). However, they are conceptualized specifically for the online venue of the blog. The dimensions of wine blog credibility are discussed in the following sections.

Source Credibility

The perception of the credibility of "who said it" is a major influence in an individual's acceptance of information (Berlo, Lemert, & Mertz, 1969). Source credibility is traditionally defined as the degree to which an individual perceives a source to be believable (Austin & Dong, 1994). A vast number of constructs for source credibility have been offered with slightly different dimensions (e.g. Berlo, Lemert, & Mertz, 1969; Markham, 1968; McCroskey & Jenson, 1975; Ohanian, 1990). The credibility scale of Berlo et al. (1969) measures three dimensions: safety (i.e. trustworthiness), qualification (i.e., expertise) and dynamism while McCroskey and Jenson's (1975) source credibility scale measures five dimensions: character, competence, sociability, extroversion, and composure. Ohanian (1990) argues for a tri-component scale for source credibility that includes trustworthiness, expertise, and attractiveness. Attempting to validate the dimensions of source credibility, research revealed considerable inconsistency among the dimensions (Cronkhite & Liska, 1976; Powell & Wanzenreid, 1995). The inconsistency among identified factors appears to be the result of items chosen for measurement by the researcher (Metzger, Flanagin, Eyal, Lemus, and McCann, 2003). This disparity suggests that the source type and context of evaluation may influence the dimensions of source credibility.

The study of source credibility has broadened also to consider the web and has been approached through translating the traditional interpersonal dimensions of credibility to the web environment. For example, according to Metzger et al. (2003) who looked at dimensions of web source credibility, the dimensions of expertise, trustworthiness, and dynamism can be evaluated through particular web site

characteristics. Website expertise may be judged by the site's reputation, the display of credentials, or the site's informativeness. Trustworthiness may be evaluated by the site's lack of commercial advertising or policy statements. Dynamism may be communicated through the appearance of the website by features such as layout or graphics. However, most studies on web source credibility conflate the distinctive credibility characteristics of site, message, and source and focus on a general assessment of credibility. For example, Rieh and Belkin (1998) argue that web information is evaluated based on the perceived expert credibility of the source. Their study suggests that users of web content look for credibility markers such as author's credentials or institutional affiliations, referrals to specific trusted sites (i.e., known expert), or URL suffixes that suggest a credible source (i.e., .gov, .org., or .edu). However, these source characteristics are actually characteristics of the writer, the content, and the site itself.

From the literature, it is apparent that source of the channel is a dimension that is considered independently by users in the assessment of credibility. For example, in a comparative credibility study of source expertise and message content in online health information search (Eastin, 2001), the two manipulated variables operated independently in effecting the credibility of the online source. While all of aforementioned characteristics are certainly relevant to the evaluation of credibility, there is obviously a richer approach to the study of source credibility – to tease out the independent characteristics that are directly related to the perceived source of a particular channel. Therefore, the constitutive definition of perceived wine blog source credibility focuses explicitly on the wine blog author (see Table 1).

Message Credibility

Although it has been shown that source credibility has held prominence in the body of credibility research, message credibility has also been studied. Many of the attempts to study message credibility used experimental designs that manipulated messages in some manner, and then asked the participants to complete an instrument that measured their perceived credibility of the message. Closer observation of the instruments used in these experiments reveals a large number of source items rather than message credibility items. Therefore, the experiments obfuscate message credibility with source credibility (Metzger, et al., 2003). For example, one such message scale is the message measurement inventory (Smith, 1978). The inventory was developed to measure the perceptions of message, including credibility, and included verbiage such as uncooperative, passive, or confident in the items. The measurement focus appears more related to the message source as opposed to message elements. Rosenthal (1971) was among the first to identify this disparity and argued that the two dimensions could be mutually exclusive. He observed that in the absence of information about the source, message recipients evaluated the message based on the specificity and verifiability of the message content alone. Therefore, message credibility should be specified as the degree to which an individual perceives the message to be believable based on the characteristics of the content itself.

Research on the dimensions of message credibility suggests a multi-dimensional construct and indicates that credibility may be evaluated on information quality, plausibility, accuracy, use of evidence, language intensity, and message discrepancy (e.g., Bacon, 1979; Hamilton, 1998; McCroskey, 1969; Slater & Rouner, 1996). The

information science literature offers the dimensions of reliability, accuracy, validity, comprehensiveness, and currency (Rieh & Belkin, 1998).

A few studies have applied the concept of message credibility to the web. Alexander and Tate (1999) found that factors such as information accuracy, comprehensiveness, and currency are important for enhancing credibility on the web. Other researchers such as Sundar (1999) and Sundar and Nass (2001) have relied upon traditional media measures such as accuracy, objectivity, bias, believability, fairness, or sensationalism when evaluating web credibility. Also using these traditional measures, Johnson and Kaye (2004) and Johnson, Kaye, Bichard, and Wong, (2007) found that the information on news blogs is considered more credible than both traditional news sources and other online news sources by politically-interested users. Interestingly, the survey participants considered blog information highly credible when judged on the information depth but considered them weaker when evaluated on fairness.

It appears that fairness or lack of bias in the message is not of great importance when news blog readers judge credibility. Lasica (2002) contends that the aspect thought to be missing in traditional media and most coveted by the blog user is an opinionated, thoughtful analysis. In fact, a biased message may be preferred. Further, it stands to reason that in a decision question, a wine blog reader may want an answer to "what would you do?" Therefore, the difference in information types is an important consideration when considering message credibility. This study specifies the wine blog as a particular information type and message credibility is assessed through an evaluation of the characteristics of the blog message. Therefore, the constitutive definition of perceived wine blog message credibility limits the credibility evaluation to the

31

characteristics of the wine blog content that affects the reader's believability judgment for the particular wine blog (see Table 1).

Site (Media) Credibility

As researchers became interested in identifying dimensions of source credibility, some became interested in the differences between media and people as communication sources (Jacobson, 1969). Beginning in the late 1930s, media research compared the credibility of newspapers with its contemporary counterpart, radio. Due to television's threat to newspaper market share in the 1950s, comparative studies focused on the perceived credibility of the competing media. In the late 1950s, the Roper Organization began an ongoing collection of media preferences. Next, academic researchers (e.g., Carter & Greenberg, 1965; Jacobson, 1969) began the task of replicating the Roper studies. Reported media preference propagated research questions about why one medium would be viewed as superior over another (Mulder, 1981). Differences in media such as technological features and structural differences were offered as explanation of media preference (e.g., Carter & Greenberg , 1965; Chang & Lemert, 1968; Gaziano & McGrath, 1986; Newhagan & Nass, 1989; West, 1994). This change in focus from source of the message to the delivery channel of the message initiated the development of scales to measure the credibility of the delivery medium. One of the more prominent of these scales was developed and validated by Meyer (1988). Derived from the semantic differential scale adopted by Gaziano & McGrath (1986), the multi-dimensional scale included items that measured the fairness, bias, completeness, accuracy, and trustworthiness of the delivery medium.

To complement the media channel studies, current research on website credibility offers additional insight on how users evaluate site-related aspects of credibility. In a large scale (n = 2,384) qualitative study on 10 types of websites, Fogg, Soohoo, and Danielson (2002) noted participant comments about the design elements such as layout, color choice, image use, or typography. The positive and negative comments on the impression of visual design were often related to credibility perceptions such as "more professional looking, amateurish, or just looks more credible" (p. 24). These researchers concluded that design look is a universal factor in the evaluation of website credibility. However, the preferred look may vary depending on the type of site evaluated. This finding suggests that different types of websites produce different types of credibility assessment.

The definition of media credibility is generally accepted as the perceived believability of information by the receiver based on the characteristics of the channel through which the source sends the message (Abel & Wirth, 1977; Gantz, 1981; Newhagen, 1997; Westley & Severin, 1964). Therefore, constitutive definitions and operationalizations should reflect the distinctive nature of a particular channel type. The wine blog is a particular type of website with technological and structural features (e.g., multi-media use; unregulated flow of information) which are unlike traditional media. Therefore, for this study there is a danger of relying on existing scales developed predominantly for news delivery media. New media such as blogs carry all types of information in various delivery styles and thus do not neatly fit into this research stream. As Alterman (2003) aptly stated, "If all bloggers followed a journalism code of ethics, their blogs would be objective and edited…but would they still be blogs? (p. 85)." In

addition, the personal nature of the informational blog in this study necessitates

divergence from the predominant view of website credibility which focuses more on

corporate and e-commerce credibility issues. Therefore, the constitutive definition of

wine blog site credibility in this study limits evaluation of the site to technological or

aesthetic features. Through these features, content is delivered that affect the reader's

believability judgment for a particular wine blog (see Table 1).

Site, message, and source: Information components of a blog

The three theoretical dimensions of credibility (site or media, message, and

source) are supported in the literature (Kiousis, 2001), yet they are somewhat intertwined

(Fragale & Heath, 2004; Slater & Rouner, 1996). The same is true with the dimensions

of blog credibility. They are interrelated (the blog as the medium, the blogger as the

source, and the post associated with the blogger as the message), but they have unique

functions. Evaluating them separately and specifically in the blog domain will help gain

an initial understanding of the user's approach to the evaluation of blog credibility.

Warnick (2004) argues that "one size fits all" for credibility on the web does not

work. Rather, websites should be considered in light of their purpose and function. For

example, an e-commerce website would have vastly different evaluative criteria than

would a health-related blog site. Further, the extension of credibility research to the

digital age emphasizes credibility as an outcome of the evaluation of digital information,

but little attention has been given to the online exchange of information between

individuals (Flanagin & Metzger, 2003). There is a vast difference between the

credibility of a website and the credibility of a person using the web to communicate. In

addition, there is a difference between personalized communication via the web that is

created for a specific audience such as e-mail and broadcasted messages for a virtually unlimited audience. Blogs, as one-to-many communication, fall into the second class of personal communication on the web.

Although there is a large body of research that looks at the credibility of various media channels, there is inadequate research pertaining to how the credibility of blogs is evaluated by their users (Johnson & Kaye, 2004). Thus far, studies of blog credibility have primarily focused on news or political blogs. Most often, blog credibility researchers compare blogs to other sources/mediums of information such as traditional/online broadcast TV, cable or newspapers. These research studies explore blog credibility using traditional measures from the literature (fairness, accuracy, lack of bias, believability and depth of information) (e.g., Johnson, Kaye, Bichard, & Wong, 2007; Yang, 2007). As a result, researchers are getting mixed results due to misleading data (Li, 2005). Blogs are qualitatively different than the media channels to which they are compared and the current measures do not capture these differences.

When choosing which credibility measurement items to include in a scale, the focus of measurement should be determined. For example, is the focus on the credibility of the source or the credibility of the content that is communicated? Additionally, information seekers utilize different evaluation criteria depending upon the type of media (newspapers, television, online) that is assessed (Newhagen and Nass, 1989). The chosen items to evaluate blog credibility must tap into how the users conclude that a particular blog is credible. For example, if the blog is perceived to be accurate, what is it about the blog that draws this conclusion? Therefore, new factors for credibility assessment must

be used in the study of new media (Wathan & Burkell, 2002). This omission creates a research gap that is addressed in this present study.

Trust (Moderating Variable)

Trust is a result. Whether we sit in a chair or go under the knife, we have developed an expectation with regard to the trusted object based on some assessment we have made. Basically, to trust something is to have optimism toward a favorable outcome. There is extensive literature on trust offered by the disciplines of philosophy, psychology, sociology, management, marketing, industrial psychology, ergonomics, human-computer interactions, and e-commerce (Corritore Kracher, & Wiedenbeck, 2003). Yet, it is a difficult construct for study because there is no singular definition agreed upon in the literature (Rousseau, Sitkin, Burt, & Camerer, 1998). Even within the perspective of each study discipline, there is lack of agreement on conceptualization, operationalization, and findings (Lewicki & Bunker, 1995). Still, researchers from all disciplines seem to agree on the value of trust (Corritore et al., 2003). Trust enables individuals to make decisions with less than perfect information (Mayer et al., 1995). Similar to the oft-used quote by Justice Stewart, "I can't define [trust], but I know it when I [feel] it."

Trust vs. Trustworthiness

Before explaining how trust is conceptualized in this study, it is helpful to clarify what it is not. Trust is not synonymous with trustworthiness, although this distinction is often neglected in the literature. In fact, Blois (1999) contends that most researchers of organizational relationships say they are examining trust when they are instead referring to trustworthiness. For example, Doney and Cannon (1997) state that companies should

teach their employees to develop trust. Blois (1999) rightly challenges this statement, arguing that salespersons demonstrate trustworthiness in the hope that buyers will develop trust. This distinction implies that trustworthiness is a characteristic of the object of trust. Trust is what emanates from a person with regard to the object of trust – individuals place trust in the object (Corritore et al., 2003). In the present study, trustworthiness relates to the credibility of the object of trust (the wine blog) and trust is what emanates from the wine blog reader. While distinct, the two terms are logically interrelated (Solomon & Flores, 2001). The chair or the surgeon is trusted based on characteristics of trustworthiness.

Online Trust

The previous section focused on the trust relationship between the trustor (wine blog reader) and the trustee (wine blog writer). This relationship occurs within an online environment; thus it is important to consider previous research on online trust when defining trust in this study.

Within online trust research there are two approaches to studying the online relationships between the trustor and the object of trust (Corritore, et al., 2003). The first approach focuses on computer-mediated communications in person-to-person relationships mediated through technology such as e-mail messages (Olson & Olson, 2000). The second approach focuses on technology as the object of trust (e.g., trust in a website or software agents) (Corritore, et al., 2003). That is, trust must occur toward the technology to be accepted for use. The latter approach is the most prevalent in the literature; however, its focus on website infrastructure does not capture the personal nature of the wine blog which includes a human "voice" in content and persona. Yet,

what can be extrapolated from the website trust literature is that trust in a website, or blog in this instance, occurs through interaction with and evaluation of the site (Bart, Shankar, Sultan, & Urban, 2005).

Trust in a wine blog combines both of these approaches. Because the wine blog is the personal voice of the writer, trust is established at the individual or person-to-person level. However, trust also stems from an evaluation of the wine blog as a whole which includes an assessment of the message and the website in addition to the personal source. Some of these evaluative characteristics pertain to technological attributes merging both approaches of online relationships – technological and interpersonal.

Trust as Affect

McAllister (1995) classified trust in two forms: cognitive-based trust which is rational and affect-based trust which tends to be emotional. Although the labels differ, empirical evidence supports the distinction between the two forms of trust (Johnson-George & Swap, 1982; Rempel, Holmes, & Zanna, 1985). Cognition-based trust is based on good, rational reasons to trust such as professional credentials of the trusted. This conclusion is a result of an evaluation of observable characteristics. Affect-based trust relies on the emotional or intuitive side of reasoning (Chowdhury, 2005).

There is debate in the literature if cognitive-based trust can be considered "real" trust at all (e.g., Young, 2006; Williamson, 1993). Researchers such as Williamson (1993) contend that trust is not strictly a calculative assessment, and that real trust relies on relational attributes. Blois (1999) argues that trust is emotive because it depends upon the goodwill of the trusted individual. Other researchers (e.g., Holmes & Rempel, 1989; Johnson-George & Swap, 1982; Lewicki & Bunker, 1996) make the case that affect-

based trust is a deeper trust that stems from a cognitive assessment. Sztompka (1999) argues that trust within an interpersonal context is actually a bet about the future actions of a trusted individual based on two main components: belief and commitment. A person first develops beliefs regarding the trusted person's actions. These beliefs are not trust itself but provide the basis for the second component, the action of commitment. While rare, the e-commerce literature distinguishes between cognitive and emotional trust. Cognitive trust is defined as the "rational expectations that a trustee will have the necessary competence, benevolence, and integrity to be relied upon" while emotional trust is defined as "the extent that a trustor feels secure and comfortable about relying on a trustee "(Komiak and Benbasat, 2004, p. 187). Thus, emotional trust is influenced by cognitive trust. Zahedi and Song (2008) followed this argument in their study of online health infomediaries. They designated the cognitive assessment of ability, benevolence, and integrity as trustworthiness beliefs and the emotional (affective) result as trust attitude. Their findings indicated a strong relationship between trustworthiness beliefs and trust attitude.

The assimilation of these studies provides evidence that the study of trust follows a similar pattern as the study of attitudes. Beliefs (cognitive assessment) provide the basis for attitude formation (affective summation) that leads to behavioral intentions. There is affective-evaluative consistency between the two constructs (cognitive beliefs and affective trust). The extent of the overall affect for a given object corresponds to the evaluative implications of the beliefs one has toward the object. Likewise, this present study adheres to the same logic. Therefore, the trust construct is defined as an affective state toward the use of a particular wine blog. This state stems from the cognitive

perceptions of the credibility characteristics of the wine blog and results in intentions to engage in specific behavior (see Table 1).

The Need for Trust

As discussed previously, individuals engage in information search to reduce the uncertainty (risk) in their decisions. They attempt to mitigate the potential adverse consequence of their behavioral choices. That is, they attempt to subjectively determine the probability of a positive outcome. Trust in another helps information seekers cross the threshold of uncertainty. Yet, willingness to trust (assume risk) in any given situation is determined by specific factors (Johnson-George & Swap, 1982). For example, the risk one is willing to take may vary from the individual trusted to feed your cat to the one trusted with your most intimate disclosures. Therefore, this study does not view trust as a general personality trait. Rather, trust is conceptualized as occurring in a specific situation. In this instance, it is the situation of trust in the wine blog searched for information use.

The role of trust in alleviating perceived risk in the online environment is well documented by the popular press and in the literature (Gefen, Karahanna, & Straub, 2003; Gefen, Rao, Tractinsky, 2002). In particular to the online environment, trust is noted as the key success factor for website success (e.g., Cheskin Research, 2000; Gefen, Rao, & Tractinsky, 2002; Jarvenpaa &, Tractinsky, 1999; Marcella, 1999). Since the literature on trust agrees that risk is only a condition for trust to arise (Cheung & Lee, 2006; Delgado-Ballester, 2004), trust is not directly measured. Rather, it is assumed that the intention to engage in the behavior means that risk has been mitigated by trust in the wine blog. The behaviors chosen for study assume risk, making them trust behaviors.

Behavioral Intentions (Dependent Variables)

Understanding the complexities of trust attitude development aids the prediction of an individual's behavior, the ultimate variable of interest to the consumer behavior researcher, the marketer, and even the blogger him (her) self. Considerable research within social psychology has explored predicting future behavior (Sheppard, Hartwick, & Warshaw, 1988). Because most of the studies have found a positive relationship between intentions and behavior using models such as the theory of reasoned action, the theory of planned behavior, and the theory of trying, most researchers accept that intention is the single best predictor of behavior (e.g., Armitage & Conner, 2001; de Canniere, Pelsmacker, & Geuens, 2009; Kraus, 1995). Behavioral intention is a conscious plan to engage or not engage in a particular future behavior. Although there is not a perfect relationship between behavioral intention and behavior, individuals that hold a strong attitude toward an object are more likely to act according to their convictions (Solomon, 2007, p. 253). Due to the difficulty of measuring actual behavior, the current study measures behavioral intentions. This proxy research strategy is very common in the literature (e.g., Armitage & Conner, 2001; de Canniere, de Pelsmacker, & Geuens, 2009; Kraus, 1995).

Because one can engage in a range of behavioral acts corresponding to an attitude object, it is important to reflect at least a part of the hypothetical range (Albrecht & Carpenter, 1976; McKnight, Choudhury, & Kacmar, 2002a). The marketing literature has emphasized the key role of trust on marketing success (Sichtmann, 2007), focusing mainly on loyalty or commitment to a supplier or corporate brand (Doney & Cannon, 1997; Sichtmann, 2007). The impact of trust on purchase intentions and WOM behavior

has received less attention in the literature but both are considered to be key success factors in many markets (e.g. Pauwels, Silva-Risso, Srinivasan, & Hanssens., 2004; Turnbull, Leek, & Ying., 2000; Mitchell & Greatorex, 1993). Therefore, the wine/wine blog-related behavioral intentions in this present study include: (a) follow recommendations – purchase or other wine-related advice, (b) share word-of-mouth about the wine blog (external outcome), and (c) continue participation with the wine blog (reading and/or commenting). These behavioral intentions are also chosen because they are associated with risk, making trust necessary.

Intention to follow recommendations

Following recommendations is not a new concept in the behavior literature. The influencer tries to sway the outcome of a decision (usually a purchase or related behavior, like going to a concert, buying a wine opener, or reading a specific wine book) by providing some information and suggesting a course of action. The influencer uses personal judgments about products, situations, and venues to provide input to a decision maker's evoked set. Usually, this input is either verbal or word based and is almost always personal. As discussed previously, the Web exponentially increases the amount of recommendation information available for a decision maker. In the case of wine blogs, some of the recommendations pertain to making an actual purchase while others are wine-related advice not related to a direct purchase. Both types of recommendation information possess potential perceived risk. The perceived risks associated with wine purchase are functional (taste), social (approval of family and friends), and financial (price) (Mitchell, 1987). An example of a non-purchase recommendation is the proper storage of wine. The risks associated with this decision are functional (taste ruined),

financial (investment lost), and social (embarrassment for following bad advice). The

importance of trust in the influence of purchase intentions has found support in the

relationship marketing literature (e.g., Sichtmann, 2007) and has been widely researched

and supported in the e-commerce literature (e.g., Battacherjee, 2000; Corbitt,

Thanasankit, & Yi, 2003; Pavlou, 2003; Pavlou & Gefen, 2004; van der Heijden,

Verhagen, & Creemers, 2003). Since following recommendations, in particular purchase,

is important to the field of social/marketing research (McKnight, Choudhury, & Kacmar,

2002b), it is included as an outcome variable in the present study.

Intention to spread word-of-mouth

Word-of-mouth (WOM) communication is defined as an exchange of ideas,

comments, or opinions between individuals who do not represent a marketing entity

(Bone, 1992). This exchange may be about a brand, a product, a service, an organization,

or even an idea. As previously discussed, the wine blog is an electronic WOM

communication source about the product of wine. However, WOM communication

delivered through the wine blog can lead to additional positive or negative WOM about

the accessed blog. Thus, WOM is internal to the study of wine blogs and is also an

outcome variable. In this study, the WOM outcome variable is defined as a wine blog

reader's exchange of opinions and recommendations about the wine blog searched for

information.

The spread of WOM communication about the blog is important when

considering the reach of user-generated content. In the online world, the ranking of a

blog, or any website, is most often determined by its traffic. Therefore, the success of the

wine blog can be significantly impacted by the influence of recommendations. The wine

blog reader has the capacity to greatly increase the readership of the blog. A Jupiter Communications study (Slack, 1999) found that a personal recommendation was greater than any other source of influence for people visiting a new website (57%). Offline, the recommendations are through one-to-one conversation. Online, the impact of recommendations can be exponential. Thus, WOM behavior is an important outcome in this study.

Wine blogs are predominantly authored by individuals the user does not know. Perceived social risk is present in the decision to recommend the wine blog as a good information source. If an individual determines that the wine blog is a credible information source and it is later discovered to be in error, the individual risks social embarrassment among referent group members, especially if there are negative ramifications for following recommendations within the wine blog. Users of blogs are more likely to engage in positive word-of-mouth communication about a blog when they trust them.

Support for the positive influence of trust in the WOM behavior of consumers is found in the relationship marketing literature. Sichtmann (2007) found that trusting a brand reduced the perceived social risk related to making a recommendation. She concluded that an individual would not want negative repercussions from making a bad recommendation and would only give a recommendation if he or she had trust in the brand. In a study of relationships between employees of banks and a dental office with patients, Gremler, Gwinner, and Brown (2001) found that interpersonal trust influenced positive WOM behavior about the organizations. Therefore, this present study argues

that an attitude of trust toward a wine blog will positively influence an individual's positive WOM behavior about it.

Intention to continue wine blog participation

The relationship marketing literature emphasizes commitment as motivation to stay in a relationship (e.g., de Ruyter, Moorman, Lemmink, 2001; Doney & Cannon, 1997; Kumar, Hibbard, & Stern, 1994; Morgan & Hunt, 1994). Kumar, Hibbard, and Stern (1994) categorize two types of commitment based on affective and calculative motivation. In affective commitment, an individual is motivated to continue the relationship based on a general positive feeling toward the relationship partner (de Ruyter, Moorman, & Lemmink, 2001). In calculative commitment, an individual is motivated to continue the relationship because he or she feels that the relationship could not be easily replaced – a calculative assessment of benefit and cost. Morgan and Hunt (1994) suggest that an individual will make maximal effort (commitment) to maintain a relationship when it is believed that the relationship is important. They further posit that the commitment to a valued relationship is based on trust. In this study, commitment is viewed as the intention to return to the same wine blog. It is defined based on the consideration of value and loyalty.

The value consideration in the calculative component of continuing participation with the same wine blog is based on the perceived benefits of using the wine blog and the cost of leaving to find another information source. After an individual has determined that a wine blog is a valuable source for information, the cost of finding another wine-related information source is associated with time risk. Thus, continued participation with a wine blog in this present study stems from the importance of recognizing the value

associated with use of the wine blog and the cost (perceived time risk) associated with

finding another information source. The affective component of continuing to participate

is understood to be the degree of personal meaning the user feels for the wine blog. In

other words, do the participating individuals feel a sense of connectedness or loyalty to

the wine blog? In addition, Seddon (1997) argues that the more frequently individuals

access and continue to use an information system, the more successful the information

system. Ultimately, continuing to participate in a wine blog might be most pragmatically

understood by the frequency the user intends to return to it.

It is important to the present study to determine whether blog credibility and trust

can predict an individual's decision to return to the same wine blog. A blog's success,

and thus its influence, is dependent upon the continued development of participation with

the wine blog (Chen, 2007; Chiu, Hsu, Sun, Lin, & Sun, 2004; Hsu & Lin, 2008; & Lu &

Hsiao, 2007). In this study, trust in a particular wine blog is viewed from an

interpersonal perspective. The confidence in using the wine blog as an information

source is developed from the words and actions of the trusted party – the author of the

blog. Morgan and Hunt (1994) posit that "commitment entails vulnerability, [thus] parties

will only seek trustworthy partners" (p.24). Commitment to a relationship is

conceptualized in this study as the continued use of a target wine blog. Trust is

considered a major determinant of that decision. The relationship between trust and a

commitment to stay in a relationship has been supported in the relationship marketing

literature (Doney & Cannon, 1997; Kumar, Hibbard, and Stern, 1994; Morgan & Hunt,

1994; de Ruyter, Moorman, & Lemmink, 2001). The intention to return to a website as

an outcome of trust is supported in the e-commerce literature (Hallegatte & Nantel, 2006;

Koufaris & Hampton-Sosa, 2004). In theory, an attitude of trust toward a particular wine blog will influence an individual's decision to return (continue participation) to the same wine blog.

Involvement as a Moderating Variable

The information contained within the wine blog is of primary interest to the wine information seeker. However, before the information can be trusted for decision making, an individual must determine the credibility of the wine blog. The factors of site, message, and source credibility as antecedents to trust attitude were identified and discussed in a previous section. The existing literature suggests that trust in a wine blog is dependent upon an evaluation of different characteristics that can be scrutinized for credibility evaluation. However, individuals do not evaluate all characteristics.   Some of the credibility characteristics are more influential than others in influencing a trust in the wine blog.

Petty, Cacioppo, and Schumann (1983) argue that although there are different theories pertaining to persuasion in the psychology and social-psychology literature with "different terminologies, postulates, underlying motives, and particular 'effect' that they specialize in explaining" (p. 135), the theoretical approaches all emphasize two distinct routes to attitude change (see Petty & Cappioppo, 1981; Petty, Cacioppo, & Schumann 1983 for an extensive literature review). Known as dual process theory, the two-route classification explains why some characteristics are more influential than others in attitude change pertaining to a persuasive message (e.g., Chaiken, 1980; Petty & Cacioppo, 1981). According to research in social psychology, characteristics may have a

different effect on persuasion under conditions of high or low involvement with the attitude object (Petty, Cacioppo, & Schumann, 1983).

ELM (Argument Quality and Peripheral Cues)

The specific theory of dual process pertinent to this study is the elaboration likelihood model (ELM), proposed by Petty and Cacioppo (1981). It is chosen for its explanation of persuasive influence of the wine blog dimensions that may vary among users and contexts. ELM posits that there are two routes to attitude change, the central route and the peripheral route, both of which relate to the amount of cognitive processing that occurs in information evaluation. The central route occurs when an individual engages in issue-relevant thinking about the message through cognitive processing. Namely, the quality of the persuasive argument will determine the influential significance. Not only do individuals evaluate and critically process the arguments contained in the message, they also elaborate and develop their own thoughts that are relevant to the argument. As a result, attitudes developed through the central route are more permanent in nature and more predictive of behavior. On the other hand, the peripheral route is based less on content and more on simple acceptance or rejection cues that are irrelevant to the content of the message. This route requires less thoughtful processing. The resulting attitudes are relatively temporary and are less strong predictors of behavior. Figure 5 depicts the relationship between the quality of the argument, peripheral cues, and a changed attitude. Elaboration is likely to occur in the central route and unlikely in the peripheral route.

Figure 5. Elaboration Likelihood Model depicting the likelihood of elaboration in the two routes to attitude change (Bhattacherjee & Sanford, 2006, p. 809)
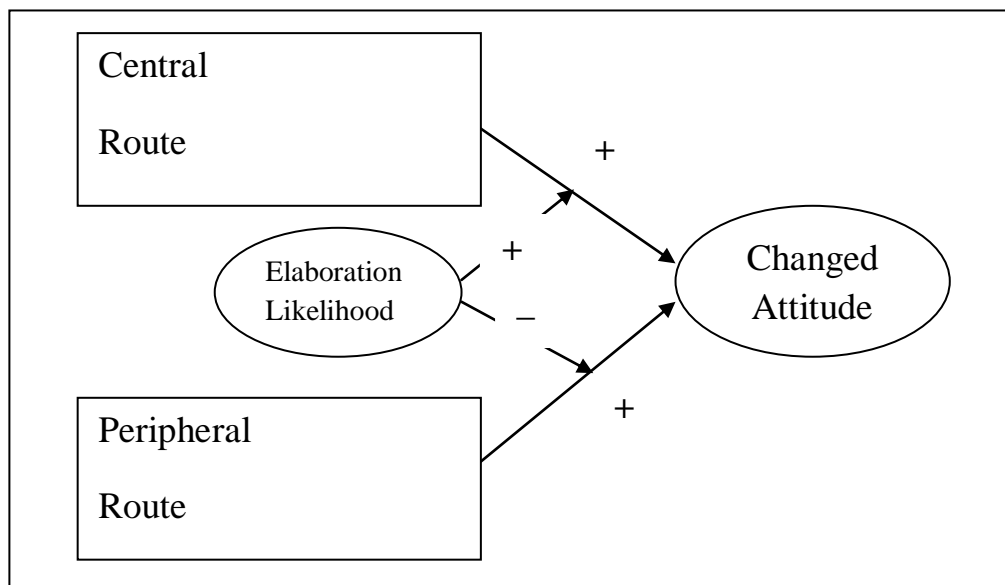
Although the two routes to persuasion are distinct, the model does not imply that the individuals choosing different paths will experience different outcomes (Bhattacherjee & Sanford, 2006). Individuals may certainly arrive at the same conclusion (attitude change) by either evaluating peripheral cues of the message or by focusing on the quality of the argument. The route chosen is dependent upon how motivated an individual is to elaborate on the message. The decision is related to the personal relevance and prior expertise an individual has in a situational context (Bhattacherjee & Sanford, 2006).

Influence of Involvement on Elaboration Likelihood

Involvement plays an important role in the study of attitude change (Barki & Hartwick, 1989). In this study, involvement is defined as a motivational state that drives an individual's overt behavior (e.g., shopping, cognitive processing) and is determined by the degree to which an individual perceives an object of interest to be personally relevant (Celsi & Olson, 1988). Involvement is often conceptualized on a continuum with the range from high to low. If an individual finds an object to be important or personally relevant (e.g., ego, self esteem, values, needs) and/or risky (e.g., financial, social, or psychological), the individual is considered to be highly involved. Alternatively, if the object is not perceived to be personally relevant or important and is not considered to be particularly risky, the individual is considered to have low involvement. Involvement research has primarily focused on the differences associated with high and low involvement (Reid & Crompton, 1993).

Involvement as a moderator in the amount and type of processing of information that is produced by a persuasive communication is central to ELM (Burnkrant & Sawyer,

1983; Petty & Cacioppo, 1981; Petty, Cacioppo, & Schumann 1983). Different characteristics are more instrumental than others in persuasion and this depends on the involvement level (high/low) of the individual. For example, under the condition of high involvement, the quality of the message has more impact in persuasion. Under low involvement, peripheral cues such as attractiveness of the message source have more impact. People are motivated to spend more cognitive effort evaluating an object or situation when involvement is high rather than low. Thus, Petty, Cacioppo, and Schumann (1983) suggest that involvement is the prime determinant of whether an attitude is changed through the central or peripheral route.

The role of involvement in the route to persuasion is supported in the literature. Empirical results indicate that the content of a persuasive message is a powerful determinant of attitude change under the condition of high involvement with a product (Petty, Cacioppo , & Heesacker, 1981; Petty, Cacioppo, & Schumann, 1983). Alternatively, source cues (celebrity endorser) are found to be a significant determinant of attitude change under the condition of low involvement with no effect under the condition of high involvement (Chaiken, 1980, Petty , Cacioppo, & Goldman, 1981). Because individuals possess varying levels of involvement, Petty, Cacioppo, and Shumann (1983) stress that both routes of influence are important to persuasion. Burnkrant (1976) and McGuire (1969) argue that the route chosen tends to be situational. In some situations people avoid difficult information processing when evaluating a persuasive argument and in other situations they are avid seekers and processors of information.

ELM Applied

The present study uses the ELM framework to evaluate the formation of wine blog trust attitude. Yang, Hung, Sung, and Farn (2006) applied the ELM framework to their investigation of initial trust toward e-tailers. They argued that website trust formation highly depends on one's product involvement. Their study results indicated that high involvement individuals build trust through a central (direct) route using cues such as product information quality or privacy policies and low involvement individuals build trust through a peripheral route using cues such as presentation style or third party seals. Corritore et al., (2003) also found that website trust can be conveyed through more peripheral cues such as ease of navigation, professional images, or visual and design elements while information content is evaluated on currency, comprehensiveness, or usefulness which requires more cognitive effort. Summary findings of Stanford et al. (2002) offer additional support. Health and finance experts were asked to evaluate and compare the credibility of two real websites within a particular website category. The findings revealed that the domain experts were less concerned with the superficial aspects of the site, focusing primarily on the informational quality of the site, reputable sources, and author credentials.

As discussed previously, the wine blog is characterized as having three dimensions for credibility evaluation. Each dimension has particular characteristics which may act as cues for the credibility assessment of a particular wine blog. For example, the site of the wine blog possesses characteristics which include aspects subsumed under functionality, design, or appeal. Characteristics such as search function, layout design, or just gut liking do not require cognitive processing per se and are

evaluated quickly under the peripheral processing route. Likewise, source characteristics such as indicators of the blog author's expertise, trustworthiness, or liking may be assessed relatively quickly on the blog through personal background disclosure in the "About Me" section of the blog or the absence or presence of blog roll links. On the contrary, message characteristics are not easily evaluated and require cognitive processing to persuade an attitude of trust. The receiver must evaluate the content of the message through such characteristics as relevancy of the topic, timeliness of information, or believability of the blogger's opinions.

In this study, the ELM framework posits that the influence of the dimensions of credibility on trust will vary depending on the level of wine and wine blog involvement. If individuals have high involvement with wine and/or wine blogs, they will use the direct or central route to develop trust attitude. Since individuals feel more equipped or motivated for this type of processing, they will thoughtfully evaluate the message content (Petty & Cacioppo, 1986). If individuals have low involvement with wine or wine blogs, they will use the peripheral route to develop trust attitude through more easily accessible cues such as disclosed evidence of wine industry knowledge (e.g., wine judge panelist) or a professional look of the wine blog site. This is not to say that they will not read the blog post and use the information, they will just look for more readily accessible cues to determine if they can trust the wine blog for information use.
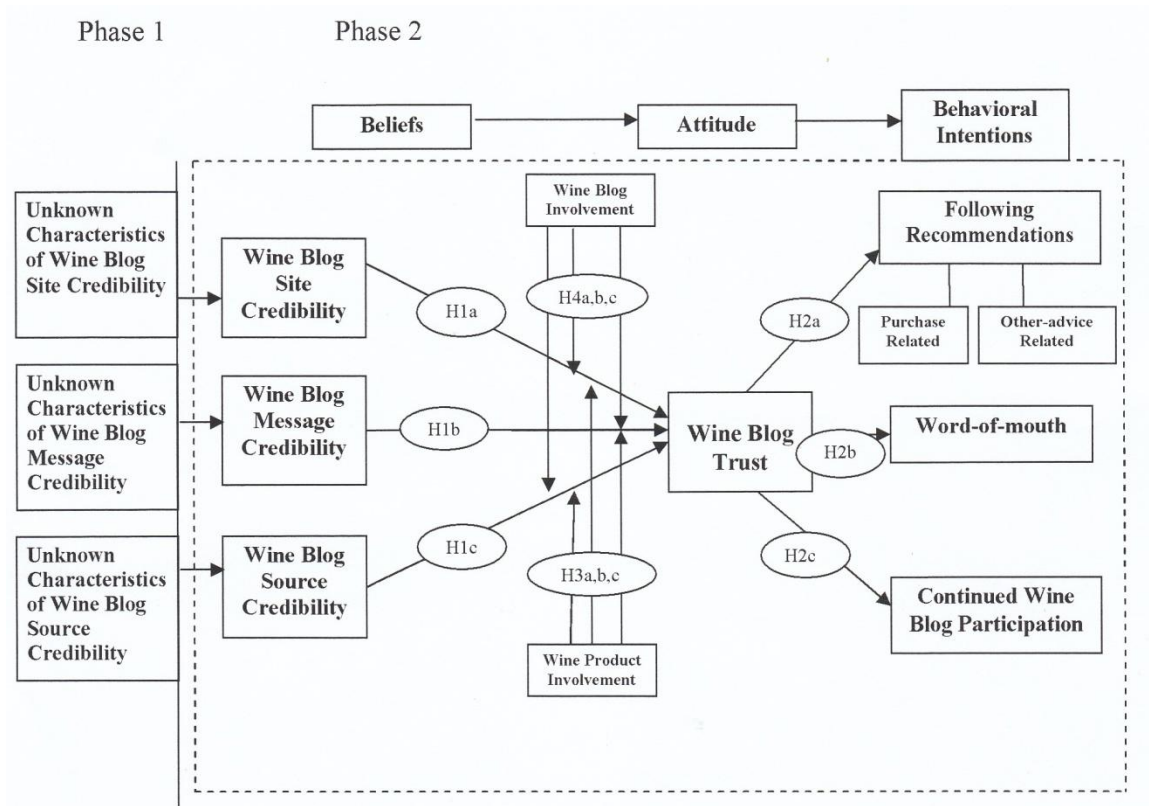
Based on the above literature, a conceptual model is developed along with hypotheses addressing the relationships between wine blog credibility characteristics, trust, wine-related behavioral intentions, and involvement which will be discussed in the following chapter.

Chapter 3: Conceptual Model and Hypotheses

The preponderance of literature investigated suggests that the credibility of media channels is paramount to their trust and influence. This literature also indicates that although all media channels have a source, message, and format, they differ considerably and may vary in how they are assessed for credibility. Further, the credibility of the dimensions (source, message, and format) may vary in their impact on trust, depending on an individual's level of involvement.

Based on this synthesis, a conceptual model is presented in Figure 6 that reflects relationships in the literature established in Chapter 2. The model addresses the influence of wine blog credibility (beliefs about site, message, and source) on behavioral intentions as mediated by an attitude of trust. As indicated in the literature review, the predominance of trust studies focus on the role of credibility in trust development and e-commerce studies demonstrate the importance of trust on behavioral intentions. Consequently, the model (arrows) reflects the influence of credibility on trust leading to behavioral intentions. The literature also indicates the effect of involvement on the cognitive processing of information that produces attitude change. Therefore, the model also reflects the moderating role of involvement with wine and wine blogs in the relationship between credibility beliefs and trust in the wine blog. As depicted in Figure 6, the unknown indicators of wine blog credibility are identified in Phase 1 before the

Figure 6. Conceptual model of the influence of wine blog credibility on behavioral intentions as mediated by trust and moderated by involvement

model is tested in Phase 2. Based upon the literature review and the conceptual model, four main hypotheses are offered.

Hypotheses for the Role of Credibility Characteristics on Trust

People look for information to make their decisions and they must make some type of evaluative judgment to determine if the information is good. This study posits that the evaluative criteria to make this judgment centers on the observable characteristics of the wine blog. The evaluation of the characteristics of the wine blog produces the individual's beliefs (accumulated through knowledge and perceptions) about the viability of a wine blog as a good source of information. When credibility is affirmed, an attitude of trust toward the wine blog can be determined.

Support for this rationale lies in the number of studies that find a positive relationship between credibility and trust. A long history of source credibility research finds that credible sources of information produce more positive attitudes and behavioral responses than do sources of information that are not deemed as credible (e.g., Hovland & Weiss, 1951; Petty, Cacioppo, & Schumann, 1983). This observation particularly supports the critical role of credibility in the development of trust (Mayer et al., 1995; Rieh & Danielson, 2007). Further, the predominance of online trust studies also focus on the role of credibility in trust development (e.g., Cheung & Lee, 2006; Corritore et al., 2005; Zahedi & Song, 2008), indicating the importance of credibility to the development of trust on the web. This linkage can be further supported by Morgan and Hunt (1994) who posit that individuals assess the characteristics of a situation and then calculate whether or not to trust or not. Therefore, as depicted in H1 (a, b, c), a positive wine blog credibility assessment provides the reason to trust the wine blog as an information source.

H1. Credibility perceptions positively predict trust formation in the wine blog.

The review of media credibility literature indicates that wine blog credibility can be studied within the context of wine blog site, message, and source credibility (Kiousis, 2001). Because it is anticipated that the three theoretical components of blog credibility serve different functions in credibility assessment, three sub-hypotheses are offered to reflect their independent contribution to trust development in the model.

> H1a. Wine blog readers who perceive a wine blog site to be more credible will form a more positive attitude of trust toward the wine blog.

> H1b. Wine blog readers who perceive the posts in a wine blog to be more credible (message credibility) will form a more positive attitude of trust toward the wine blog.

> H1c. Wine blog readers who perceive the author of the wine blog to be more credible (source credibility) will form a more positive attitude of trust toward the wine blog.

Hypotheses for the Predictive Relationship between Trust and Behavioral Intentions

Ultimately, predicting behavior is the crux of studying consumer behavior. Building on the prior hypothesis, this study further argues that an attitude of trust positively influences consumers' intention to engage in various types of behaviors. According to the theory of reasoned action (TRA), intention indicates a readiness to perform a particular behavior and can be considered an antecedent to behavior (Armitage & Conner, 2001; de Canniere, Pelsmacker, & Geuens, 2009; Kraus, 1995).

The literature is replete with support for the trust–intention hypothesis. Studies from the social sciences literature support the linkage between the state of trust and the

behavior that ensues (e.g., Pearce, 1974; Tanis & Postmes, 2005). Studies from the marketing literature demonstrate the impact that an attitude of trust toward a seller has on intentions to purchase, make a commitment, or have future interactions (e.g., Crosby, Evans, & Cowles, 1990; Garbarino & Johnson, 1999; Morgan & Hunt, 1994). The extension of this research stream online (e.g., Gefen et al., 2003; Jarvenpaa & Tractinsky, 1999; Komiak & Benbasat, 2004) consistently demonstrates the critical role of trust on behavioral intentions in e-commerce environments and recommendation systems. Keeping with this line of reasoning, the hypothesis for the trust-intention relationship is depicted in H2 (a, b, c).

> H2. Wine blog trust will positively predict a wine-/wine blog-related behavioral intention

Trusting behaviors are situational and are thus manifested by different decision outcomes. In this present study, wine-related behavioral intentions include the individual's intention to engage in three behaviors: (a) follow recommendations – purchase or other wine-related advice, (b) share word-of-mouth communication about the wine blog, and (c) continue participation in the wine blog (reading and/or commenting). Each of these behavioral intentions relates to a behavior that is associated with risk, making trust necessary.

Therefore, there are three non-sequential sub-hypotheses to capture the situational outcomes.

> H2a. Positive wine blog trust predicts a behavioral intention of following the recommendation given within the wine blog.

58

H2b. Positive wine blog trust predicts a behavioral intention of

recommending the accessed wine blog to others.

H2c. Positive wine blog trust predicts a behavioral intention of continuing

participation with the accessed wine weblog.

Hypotheses Regarding Moderator Role of Involvement (Wine and Wine Blogs) on the Relationship between Credibility Assessment and Trust

Hypotheses 3 and 4 identify the moderating effect of wine and wine blog involvement on the relationship between credibility beliefs and trust. Like Petty and Cacioppo's (1981) elaboration likelihood model (ELM), the proposed model suggests that involvement acts as a moderator in the amount and type of processing that is produced by a persuasive communication. The persuasive communication is viewed as the characteristics of the wine blog's site, message, and/or source that signal credibility. These characteristics either succeed or fail to persuade the reader to trust the wine blog. An individual's involvement with wine and wine blogs will determine the extent of evaluation in which the user is willing to engage. Highly involved users are predicted to spend more time cognitively evaluating the wine blog than those individuals who are less involved. Therefore, wine blog users who are highly involved with wine or wine blogging activity are expected to develop their trust toward wine blogs via the central route (message characteristics). On the other hand, those who have low involvement with wine or wine blogs are expected to develop their trust via the peripheral route (site and source characteristics) which requires less cognitive effort. Therefore, the following two related hypotheses are offered.

H3. The impact of wine blog users' wine blog credibility perceptions on their

trust in a wine blog is moderated by their levels of involvement with wine.

H3a. The positive impact of a wine blog's perceived source credibility on

trust in the wine blog is greater for wine blog users with low versus

high involvement with wine.

H3b. The positive impact of a wine blog's perceived site credibility on trust

in the wine blog is greater for wine blog users with low versus high

involvement with wine.

H3c. The positive impact of a wine blog's perceived message credibility on

trust in the wine blog is greater for wine blog users with high versus

low involvement with wine.

H4. The impact of wine blog users' wine blog credibility perceptions on their

trust in a wine blog is moderated by their levels of involvement with wine

blogging activity.

H4a. The positive impact of a wine blog's perceived source credibility on

trust in the wine blog is greater for wine blog users with low versus

high involvement with wine blogs.

H4b. The positive impact of a wine blog's perceived site credibility on trust

in the wine blog is greater for wine blog users with low versus high

involvement with wine blogs.

H4c. The positive impact of a wine blog's perceived message credibility on

trust in the wine blog is greater for wine blog users with high versus

low involvement with wine blogs.

Chapter 4: Methodology

This chapter describes the qualitative and quantitative research designs, instrument development, sample selections, data collection, and data analysis strategies for this study. The initial goal of this study was to create a valid measure of the underlying construct of wine blog credibility. Thus, a qualitative research method was used to develop measures of perceived wine blog site (medium), message, and source credibility. Then, the hypothesized credibility scales were purified and validated using online survey data. Finally, the relationships between wine blog credibility beliefs, trust attitude, and behavioral intentions, including the moderating role of involvement were examined using Structural Equation Modeling (SEM).

Phase 1

The type of media used as an information source determines the evaluative criteria for the credibility assessment of the information (Newhagen & Nass, 1989; Wathan & Burkell, 2002). The assumption in this dissertation is that there are evaluative criteria for credibility specific to blog media. In Phase 1 of the present study, the wine blog participants' (writers and/or readers of blogs) development of credibility beliefs for a particular wine blog was assessed. The goal was to identify the universal content domains appropriate to develop new, reliable, and valid measures for the dimensions of wine blog credibility.

For this study, the three dimensional wine blog credibility construct is conceptualized as beliefs based on the characteristics of the wine blog through which a wine blog participant makes a credibility judgment about a particular wine blog. This conceptualization emphasizes the observable characteristics of a wine blog and was used to guide the generation of items in the measurement development process. The aim was to identify the observable characteristics of the wine blog that are used to deduce the unobservable construct of credibility.

Research Design

The qualitative aspect of Phase 1 of the study utilized online focus groups for the purpose of item generation for scale development. Thus, wine blog participants were invited to discuss their views of what makes a wine blog believable. The intention was to isolate the evaluative characteristics of the wine blog and establish a content domain for the construct. To aid discussion, a focus group guide with four sections of questions was created (see Appendix A). The questions in the first three sections were designed to generate evaluative comments about each of the three theoretical dimensions of the wine blog credibility structure (site, message, and source) supported in the literature. The final section pertained to overall wine blog credibility. The participants were asked about the qualities of an ideal wine blog, what turns them off, or what makes them want to return to the wine blog again. The last section was designed with enough freedom in dialog to allow participants to include what they thought was missed in the discussion.

The guided discussion asked participants to think about the particular dimension of focus (site, message, or source), probing for the characteristics that they consider when making credibility assessments about the wine blog. The qualitative inquiry first

solicited comments on the assessment of perceived credibility of a particular dimension, and then, if not already mentioned, used probes derived from the literature – traditional terms that define credibility. For example, in dealing with questions pertaining to message, fairness and objectivity were probed; for source, expertise and trustworthiness were probed. The intent was to extract the dimensions of blog credibility from the perspective of the blog user and also explore users' perspectives regarding dimensions from the traditional literature. This questioning elicited a set of credibility items to ensure content validity for the development of the wine blog credibility measures.

This process ensured that the Phase 1 research question was answered and subsequent analyses in Phase 2 could be completed.

Phase 1 Question

1)   What are the characteristics of the wine blog that individuals use to assess site, message, and source credibility?

Sampling Strategy

A sample for the focus groups was obtained through a combination sampling method. First, a purposive sampling method was used. A purposive sample is appropriate when a researcher has adequate knowledge about the population and its elements, and when it fits the purpose of the study (Babbie, 2005). Two prominent wine bloggers were solicited to post invitations for participation on their own blog pages. The bloggers were chosen based on their substantial and diverse traffic (US and abroad) and their willingness to participate. Because blogs are a personal voice, the bloggers were permitted to introduce the invitation with their original copy. However, to minimize potential undue influence, the bloggers were requested to limit their invitation to the

importance of participating in the dialog. The solicitation was extended to all wine blog participants (wine blog writers who maintain their own wine blog and wine blog readers who only read or comment on blogs) provided they could speak English and were at least 21 years old. Second, quota sampling, which relies on key characteristics to define the composition of a sample, was used. Adequate representation from both readers and writers of blogs was necessary to capture a broad spectrum of perceived characteristics. Therefore, an even sample was desired to evenly represent the views of wine blog users.

Individuals that responded were scheduled for interviews during a two week period. Online focus groups were implemented using SKYPE™, an Internet-based communication technology. SKYPE™ allows conference calls to other SKYPE™ accounts free of charge or to cell phones and landlines for a nominal fee. Due to the absence of interpersonal cues which inhibits discussion control, the groups were purposively held to a small size.

Sample Information

The composition of the focus groups used in Phase 1 of the study included nine groups of two to four participants. The focus group pool breakdown was: 25 interviewees; 13 wine bloggers, 8 inside the wine industry, 5 outside the industry; 12 non-bloggers (readers), 6 inside the industry, 6 outside the industry. A relatively even sample between bloggers and readers, inside and outside the industry was achieved to gather adequate diversity of characteristics for item generation.

Data Analysis Strategy

The narratives (developed from the online focus group procedure and questions in Appendix A) were content analyzed to derive the themes for generation of adequate

indicators (items) that reflect content validity for each wine blog credibility construct. Content analysis is an objective and systematic method of analyzing communication to gain structure, meaning, and relationships from the words and/or phrases in the communication. One methodology for content analysis uses the frequency of words appearing in a large array of words to establish themes (Kerlinger, 1986). The level of implication and subsequent text reduction is determined by rules created for coding. This type of content analysis quantifies the existence of words but does not examine how words are related.

On the other hand, relational analysis such as centering resonance analysis (CRA) examines the relationships among concepts in a text as opposed to looking for the frequency of concepts, words, or phrases. Drawing on the centering theory of communication, the meaning of a text can be understood by examining the location of influential words, relative to other words in a text array. Influential words are those that act as connections to several other words. The algorithms used to identify important words are derived from network theory. It is similar to a social network where certain people hold important positions due to their connections to other people in the network. Those with many connections are as described as being "very central." As more people connect through an individual, the betweenness score increases. CRA focuses on identifying words with high betweenness scores.

Crawdad Desktop 2.0© is a centering resonance analysis software program. It was used in this study to identify the characteristics used by individuals when considering the credibility of a wine blog choice. CRA is a research tool that still requires a degree of personal annotation. However, the computer automation simplifies a very complex

relational evaluation of word meaning. In essence, the computer finds the relationships and the researcher defines the meaning. The recurring themes within actual statements were used to generate an extensive set of items that most accurately reflect each dimension of wine blog credibility. The CRA was interpreted and dimensions were created based on insights accumulated from knowledge of the literature and interaction with participants in the focus groups. The items were categorized, selectively reduced for redundancy, and sent to three wine blog writers (experts) for evaluation and categorization. The three wine bloggers were chosen based on their experience with and activity in wine blogging. The bloggers received the scrambled item pool (see Appendix B3) and written instructions describing their tasks (see Appendix B1): evaluate the statements for clarity, rewriting them as deemed necessary; complete a sorting task, assigning each item to a dimension of credibility. The dimensions were provided for this exercise although they could create dimensions of their own or not assign statements at all (see Appendix B1). The item pool was categorized by the results of the wine blogger categorization sorting task and sent to two marketing professors specializing in interactive marketing and web application for further reduction. The resultant structure formed the credibility scale used in Phase 2.

Phase 2

Research Design

Constructs to investigate the proposed conceptual model of wine blog credibility driven trust behavior were identified from Phase 1 (wine blog credibility scale development) of the study and from the literature review. Operational definitions of the

constructs are shown in Table 2. A self-report online survey was used to collect data to validate the credibility measures and quantitatively test the proposed model.

Domain of Attitude Object. The attitude object (AO) for the Phase 2 study was developed from the conceptual study framework in Chapter 2, Figure 3. This AO is the particular wine blog visited most recently by the individuals in the Phase 2 study sample. The individuals were asked to respond to the survey questions while considering specifically the particular wine blog visited most recently.

A self-administered online questionnaire was hosted on Questionpro® and contained the credibility scales developed from Phase 1 data along with measures of trust, intention to purchase or intention to follow other non-purchase-related wine recommendations, intention to spread WOM communication about the wine blog, intention to continue participating with the particular wine blog, and wine/wine blog involvement. The existing measures (minus credibility) were chosen based on compatibility with this study's focus, their reliability in other contexts, and their adaptability to the wine blog context. The results from this portion of the study provided the data to answer the Phase 2 research questions.

Phase 2 Questions

2)   What is a reliable and valid measure of the three dimensions of wine blog credibility (site, message, and source)?

3)   How do evaluations of site, message, and source wine blog credibility impact wine blog trust?

4)   How does trust in the wine blog influence behavioral intentions?

Table 2

Operational Definitions of Variables used in Study

Operational Definition
Source

Wine Blog Site (Medium) Credibility [STE CRED]

The evaluation of the surface characteristics of the wine blog that influences the believability of the site.	Developed in Phase 1 Study

Wine Blog Message Credibility [MSG CRED]

The evaluation of the worth of the blog information that influences the believability of the message.	Developed in Phase 1 Study

Wine Blog Source Credibility [SRC CRED]

The evaluation of the writer's knowledge and presentation of the blog information that influences the believability of the writer.	Developed in Phase 1 Study

Trust Attitude [TRUST]

The degree of feelings reliance, confidence, and benevolence toward using a particular wine blog.	Young & Albaum, 2003

Following Recommendations Intention [FREC]

The intention to follow recommendations after reading the information in the wine blog	McKnight, Choudhury, Kacmar (2002)

Word-of-Mouth Intention [WOM]

The intention to commicate with others positive recommendation about the wine blog and encouragement to use the wine blog.

Zeithaml, Berry, & Parasuraman (1996)

Continued Blog Participation Intention [CBP]

The intention to frequently return and participate in the wine blogs most recently accessed based on loyalty and perceived value.

Allen & Meyer, (1990); Hsu & Lin, (2008); Morgan & Hunt (1994)

Wine Involvement [WI]

The degree to which a person reports interest in the product category of wine.

Srinivasan & Ratchford (1991)

Wine Blog Involvement [WBI]

The degree to which a person reports enjoyment of participating in activities associated with wine blogs.

Wilkes (1992)

5)   How do different levels of involvement associated with wine blogs and wine

impact the relationship between credibility and wine blog trust?

Instrument development

The survey instrument (see Appendix C) incorporates multi-item scales to

measure (a) wine blog users perceived site, message, and source credibility, (b) wine blog

trust, (c) involvement with the product of wine, (d) involvement with wine blogging, and

(e) intentions – to follow blog recommendations, to spread WOM communication about

the most recently used wine blog, and to continue participation with the most recently

used wine blog. Existing scales from the literature were chosen and modified based on

compatibility with the theoretical focus of this study. The following sections indicate the

variables' names in the model and describe the measurement instruments adopted. The

general SEM model, later formalized in Chapter 5, is depicted in Figure 7.

Wine blog site credibility [STE CRED]. The wine blog perceived site

credibility scale was developed from the qualitative analysis in Phase 1 of the study. The

measure captures the observable characteristics of technological or design features that

indicate credibility to the wine blog participant. Site credibility was assessed with three

items measuring respondents' perceptions of the layout, design, and function of the wine

blog. Respondents recorded their answers on a 7-point likert scale (1 = strongly disagree,

7 = strongly agree).

Wine blog message credibility [MSG CRED]. The wine blog perceived

message credibility scale was developed from the qualitative analysis in Phase 1 of the

study. This measure captures the observable characteristics of content quality and

delivery style that indicate credibility to the wine blog participant. Message credibility

Figure 7. General depiction of variables in Phase 2 study model
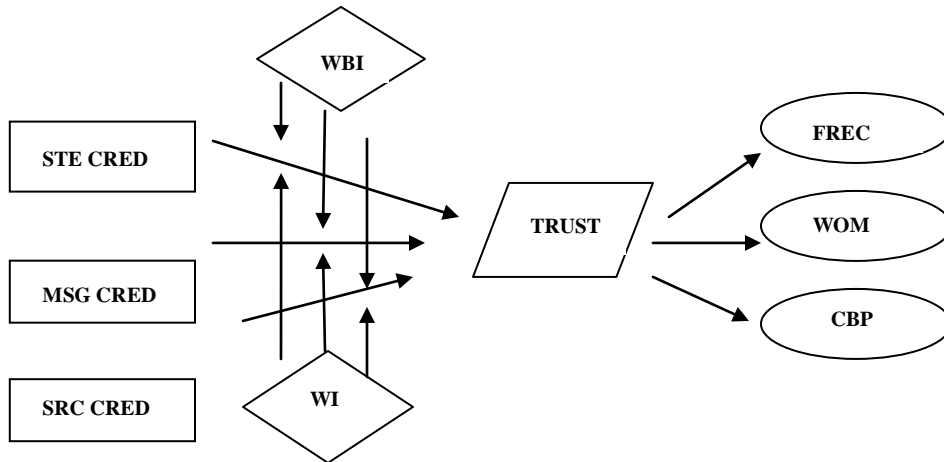
was assessed with three items measuring respondents' perceptions of the entertainment value, uniqueness, and believability of the information on the wine blog. Respondents recorded their answers on a 7-point likert scale (1 = strongly disagree, 7 = strongly agree).

Wine blog source credibility [SRC CRED]. The wine blog perceived source credibility scale was developed from the qualitative analysis in Phase 1 of the study. This measure captures the observable characteristics of the author that indicate credibility to the wine blog participant. Source credibility was assessed with three items measuring respondents' perceptions of the wine and industry expertise of the author of the wine blog. Respondents recorded their answers on a 7-point likert scale (1 = strongly disagree, 7 = strongly agree).

Wine blog trust attitude [TRUST]. Wine blog trust attitude was measured with three items adapted from Young and Albaum's (2003) trust scale. Originally developed by Young (1996) to measure trust by assessing emotions in different types of relationships, the scale was purported to measure the centrality of emotions in the development of trust. The Young (1996) scale was modified by Young and Albaum (2003) to examine trust within the context of direct selling. Direct selling most often occurs within the context of personal, social relationships (Young & Albaum, 2003). This scale is appropriate for use in the current study because the wine blog operates in a personal, social context and also because of the influential effects of the wine blog on the perception and/or consumption of certain products and other behaviors related to the domain of wine. In addition, the content posted on the wine blog is actually direct-selling, whether products or ideas. In this study, the respondents were asked to indicate

the extent of their feelings toward using the wine blog as an information source. For example, one of these feelings is the confidence they have in the wine blog.   This feeling is assessed with the statement: "I have confidence in the accuracy of the information on this wine blog." Participants recorded their answers on a 7-point likert scale (1 = strongly disagree, 7 = strongly agree).

Following recommendations intentions [FREC]. Intention to follow recommendations in the wine blog (following product purchase or non-product recommendations) was measured with three questions adapted from a scale developed and validated by McKnight, Choudhury, and Kacmar (2002). The scale was originally created to measure the behavioral intention-subjective probability of acting on advice. The original scale statements were modified to assess the intention of the participant to follow the advice in the blog post to purchase wine or wine related products or follow non-product recommendations. For example, in the original scale the respondents were asked about their intention to follow e-vendor advice. Similarly, this intention was assessed with the statement: "I would feel comfortable acting upon the information given to me by this wine blog." Respondents recorded their answers on a 7-point likert scale (1 = strongly disagree, 7 = strongly agree).

Word-of-mouth intentions [WOM].   Intention to spread WOM about the wine blog was measured with three questions adapted from a behavioral intentions scaled developed and validated by Zeithaml, Berry, & Parasuraman (1996). The three items chosen for adaptation to the present WOM scale were labeled a priori by Zeithaml, Berry, & Parasuraman (1996) as word-of-mouth communication intentions. The items use wording such as "say positive things," "recommend to someone," and "encourage friends

and relatives." The items were modified to ask the intention of the participant to say positive things, recommend, or encourage others to seek wine-related advice from the most recently used wine blog. For example, the intention to recommend the target wine blog as an information source was assessed with the statement: "I would recommend this wine blog to someone who seeks my advice about wine." Respondents recorded their answers on a 7-point likert scale (1 = strongly disagree, 7 = strongly agree).

Continuing participation with wine blog intentions [CBP]. Intention to continue participation with the most recently visited wine blog was measured with multiple indicators from the literature (Allen & Meyer, 1990; Hsu and Lin, 2008; Morgan & Hunt, 1994). The amalgam of items was chosen based on the premise that an exchange partner (wine blog participant) will desire to cultivate or maintain a relationship with a wine blog that is perceived to be a valuable source of information. The items capture the benefit of using the wine blog, the general personal feeling toward the wine blog, and the probability of returning to read the wine blog and comment in the wine blog. For example, the respondents' intention to continue participation with the target wine blog based on the benefit they feel they receive from the wine blog was assessed with the reverse coded statement: "I feel that there are no benefits associated with participating in this wine blog." Respondents recorded their answers on a 7-point likert (1 = strongly disagree, 7 = strongly agree).

Wine Involvement [WI]. Wine involvement was measured by adapting a product involvement scale developed and validated by Srinivasan and Ratchford (1991). The original scale measured the interest an individual has with a specific product category. A high score on the scale indicates that the respondent has very high interest

(involvement) with the product category whereas a low score indicates the respondent has very low interest (involvement) with the product category. The six item scale was reduced to four items based on fit with the target product in this study and also due to the need for length reduction of the survey. An example statement to assess the respondents' involvement with wine was: "I have a compulsive need to know more about wine." Respondents recorded their answers on a 7-point likert scale (1 = strongly disagree, 7 = strongly agree).

Wine Blog Involvement [WBI]. Wine blog involvement was measured using a modified social involvement scale developed and validated by Wilkes (1992). The scale was created to measure how much individuals report enjoyment of an activity and being around other people. Wilkes (1992) attributed the items to the Activities, Interests, and Opinions (AIO) Item Library (Wells, 1971), a measurement tool used to categorize individuals by lifestyles. It was appropriate for modification and use in the product-based, community setting of wine blogs. Wine blog participation is a social activity not limited to consumption. It is a lifestyle encompassing food pairings, winery visits, virtual or actual wine making, and collecting wine to name just a few behaviors. The wine blog is an outlet of expression with other like-minded individuals, a third place for those who are highly involved. Even if an individual chooses to be a lurker in a wine blog, he or she is in the circle of conversation through virtual eavesdropping and may consider participation very important to him or her. Therefore, the four items chosen were modified to capture the respondents' feelings about the activity of wine blog participation and also about other people participating in wine blogs. For example, the enjoyment of participating in wine blogs was assessed with the statement: "Participating in wine blogs

is one of the most enjoyable activities that I do." Respondents recorded their answers on a 7-point likert scale (1 = strongly disagree, 7 = strongly agree).

Sample Selection / Data Collection Method

Questionnaire Design. The questions for the measures in Table 2 were ordered in a planned structure on the Questionpro® online survey platform. The platform uses a restrictive answer format which ensured completion of every question asked although the respondent could choose to discontinue survey completion at any time. Therefore, because a complete set of questionnaire responses was collected for all respondents who chose to continue to the end of the survey, there was no missing data. Questionpro® provided an online percent (%) completion indicator to motivate respondents to complete the survey. The questionnaire contained 116 questions in five sections (see complete questionnaire in Appendix C).

Sampling Method. Purposive sampling was implemented to solicit a survey sample of writers and readers of wine blogs. Eight wine bloggers with substantial and diverse traffic were asked to post an invitation to participate in the survey on their personal wine blog pages along with the link to access the survey. These bloggers were chosen for their experience with wine blogging and also for the traffic they receive on their respective blogs. Two bloggers declined to post the invitation, stating that they felt such a request would impose upon their readers. Additionally, an attempt was made to broaden the response sample by posting on the online forums of the two most prestigious wine boards: eRobertParker.com and The Wine Spectator. The administrators of both of these venues declined the request.

The blog post (message written by the wine blogger) included the blogger's own perceptions of my research, a hyper-linked URL to take part in the study, and a request to pass the survey URL along. They were not required to post on a given day. The bloggers posted over a 1 ½ week period. As planned, the result was a viral data collection method. Additional bloggers e-mailed to request permission to post about the survey on their own blogs, although some posted without contact. One wine blogger (a professional journalist) requested an interview prior to posting. Still others chose to tweet the URL with an influential, less than 140 character sales pitch.

The survey began with an informed consent statement (ICS) that included a legal stipulation for participation to 21 years of age or older. Consent was given by clicking on the proceed button on the QuetionPro® start page containing the ICS. Incentives for participation have significant positive response rates (Church, 1993); thus incentive was used in this study. The respondents had the option to give their e-mail address for the chance to win one of ten $25 e-certificates.

The final sample needed an adequate number of cases to be split for scale purification and validation and then recombined for the SEM analysis. One of the issues for split sample cross validation confirmatory factor analysis is to obtain enough sample representation to adequately deal with the sample size and model misspecification issues inherent to CFA. These issues include not only the fit issues but the indices associated with evaluating the CFA model. (Bandalos, 1993; Marsh and Balla, 1994,; Schreiber, Nora, Stage, Barlow, & King, 2006). Kline (2005) argues for sample size based on choice of statistical analysis. Although the size needed is affected by the normality of the data and the estimation model that researchers use, it is generally agreed that the sample for

factor analysis should be 100 or larger with a preferred minimum of at least five times as many observations as variables in the analysis (Hair, Anderson, Tatham, & Black., 1998). The structural model was estimated with maximum likelihood estimation (MLE). While MLE can provide valid results with samples as small as 50, it is generally accepted that 100-200 cases is a better minimum (Hair, et al., 1998).

Analytics of Credibility Measurement Development

After the data collection, the sample was split randomly into two scale development data sets. The first half of the sample was used to refine and purify the scales. The second half of the sample was used to validate the scales. Ordinarily, a pilot study would be used. However, in the essence of time management for this study, the cross-validation approach was implemented (Delgado-Ballester, 2004). It is assumed that none of the power of measure was lost with this procedure. After scale purification and validation, the two samples were combined to complete the model analysis.

Scale Purification

First, an item analysis was performed on the first half of the data to select those items that correlate strongly on the hypothesized dimensions. Items that have high item-to-total correlation ($r > .50$) with the measure as a whole and on their hypothesized dimension were retained. Next, a principle components factor analysis, adopting Promax for oblique rotation, was conducted to eliminate redundant, irrelevant, or unclear items. The analysis was also used to identify the meaningful factors in the data set. Because of an a priori belief that although the dimensions of wine blog credibility are somewhat distinct, they may not be fully independent, Promax rotation was chosen.

According to rule of thumb, factor loadings should exceed .70 to confirm that the observed variables are represented by a particular latent variable. This level indicates that the factor explains about half of the variance in the indicator variable. However, because of the exploratory nature of this study, the threshold of .60 for practical significance of a reliable construct was used as suggested by Bagozzi and Yi (1988) and Hair et al. (1998).

It should be noted that the items were not retained or eliminated on correlation or EFA results alone. For example, if an item that reflects the theoretical core of the construct does not produce strong correlation, consideration will be given to why the item did not behave as expected (e.g., poor wording) (Clark & Watson, 1995).

Scale Validation

Construct validity generally refers to the hypothetical correlation between an unobservable construct and the measure of the construct at an operational level (Blalock, 1968). Construct validity is not assessed directly but is inferred (Peter, 1981) and a single study does not establish it (Cronbach, 1971). For example, if a construct is hypothesized to have three dimensions, then three meaningful factors produced by factor analysis is interpreted as supportive evidence of construct validity (Peter, 1981).

A confirmatory factor analysis (CFA) using AMOS 16.0 (Arbuckle, 2009) was performed with the second half of the data. CFA was used to assess the factors and loadings of variables. Whereas in EFA where all factor loadings are free to vary, CFA allows for the explicit constraint of certain loadings to be zero. This constraint gives a more rigorous and robust analysis. CFA has added to the body of construct validation

science by replacing older methods of analyzing construct validity such as the MTMM (Multi-trait—Multi-method) Matrix as described in Campbell & Fiske (1959).

Assessment of overall model fit. The CFA model was evaluated according to recommended fit indices using AMOS 16.0, maximum likelihood estimation (MLE) (Arkbuckle, 2009). To evaluate model fit, the chi-square statistic, its degrees of freedom, and p value were assessed for non-significance. A p value of χ^2 indicating good model fit should be above a minimum of .05, although, a more conservative threshold above .10 is desired (Hair et al., 1998). However, large samples almost always reject a model (Bentler & Bonnet 1980; Joreskog & Sorbom, 1993) and small samples often lack power and may not discriminate between a poor and good fit (Kenny & McCoach, 2003). Thus in addition to chi-square, the model was also evaluated with practical indexes of fit (Bentler & Bonett, 1980). Jaccard and Wan (1996) recommend the use of at least three fit tests, one from each of the fit index categories (absolute, relative, and parsimonious), so as to reflect diverse criteria. To assess the practical fit of the model to the data, four additional goodness-of-fit indices were chosen. Three of these indices were based on recommendations by Kline (2005): (a) the root mean square error of approximation (RMSEA), developed by Steiger and Lind (1980); (b) the comparative fit index (CFI), developed independently by Bentler (1990) and McDonald and Marsh (1990); and (c) the standardized root mean square residual (SRMR). The absolute fit measure, RMSEA, measures the discrepancy between the sample coefficients and population coefficients and favors parsimony (Diamantopoulos & Siguaw, 2000). RMSEA in the range of .08 to .10 indicates mediocre fit and below .08 indicates evidence of good fit (MacCallum, Brown, & Sugawara, 1996). Presently in the literature, a value above .95 for the relative

fit measure, CFI, implicates good fit while a value above .90 implicates adequate fit (Hu & Bentler, 1999). Values of the relative fit measure, SRMR, range from zero to 1.0. Well fitting models obtain values of less than .05 (Byrne, 2001), yet values less than .08 are considered acceptable (Hu & Bentler, 1999). Additionally, the parsimonious fit measure, normed chi-square (CMIN/DF) as proposed by Joreskog (1970), was assessed. There is not a consensus for this statistic; however, Krause, Scannell, and Calantone (2000) suggest a cut-off value of 3.0. These indices have been found to be less sensitive to sample size, model misspecification, and parameter estimates (Hooper, Coughlan, & Mullen, 2009). After the overall fit of the model was evaluated, the measurement of each wine blog credibility construct was evaluated for convergent and discriminant validity according to common practice in the literature.

Convergent validity and reliability. Convergent validity can be inferred when the measures of the construct that should be related to each other are observed to be related to each other, that is, they share variance (Schwab, 1980). In this study, items should relate to each other according to each individual credibility scale (source, site, and message). Internal consistency is a necessary condition for convergent validity, although is it is not sufficient (McKnight, et al., 2002). Internal consistency was evaluated using Cronbach's alpha and composite reliability. Cronbach's alpha estimates were examined for a .70 acceptance. The composite reliability (CR) is a better measure of internal consistency because factor scores are calculated from the actual loadings (Kim, Ferrin, & Rao, 2008). The CR for each construct was calculated by dividing the squared sum of the standardized loadings for a construct by the squared sum of the standardized loadings plus the sum of the measurement error for each indicator (measurement error = 1 minus

the square of the factor loading). While a value of .70 is the common threshold for reliability (Churchill, 1979), .60 is acceptable for exploratory studies (Fornell & Larcker, 1981).

Convergent validity was tested by multiple means. The individual factor loadings were evaluated for the hypothesized positive direction and significance as recommended by Bagozzi and Yi (1988). In AMOS, the t-value is the critical ratio (C.R.) and is a calculation of the parameter estimate divided by its standard error. A C.R. greater than 1.96 supports statistical significance of the individual factor loadings (Byrne, 2001). Large factor loadings offer evidence that measured variables represent the underlying construct (Bollen, 1989).   Bagozzi and Yi (1988) suggest that loadings greater than .60 indicate convergent validity.

Convergent validity was also tested with the average variance extracted (AVE) method (Fornell & Larcker, 1981). The AVE estimate is the average amount of variance that a latent construct explains in the observed variables to which it is theoretically related (Hair, et al., 1998). Latent constructs correlate with observed variables and the calculation is referred to as the factor loading. The square of this loading is the amount of variance of the observed variable accounted for by the latent variable. The AVE was calculated by squaring the factor loadings and averaging the variances of the observed variables that are theoretically related to a latent construct. Convergent validity is implied when the AVE exceeds .50 (Fornell & Larcker, 1981).

Discriminant validity. Discriminant validity can be inferred when the measures of the construct that should not be related to each other are observed to not be related to each other. Discriminant validity was assessed by a comparison of the shared variance

between two constructs and the AVE of each construct. Validity is supported when both

AVE estimates are greater than the shared variance estimate (Fornell & Larcker, 1981).

Discriminant validity was also assessed with the constrained analysis method. This

method examines the χ^2 difference for paired constructs in a constrained and

unconstrained model conducted for one pair of factors at a time (Anderson & Gerbing,

1988). Two variations of the same model were specified, one with the parameter

estimate for the two constructs constrained to 1.0 and the other permitted to freely

estimate. Chi-square difference tests were examined for statistical significance to support

discriminant validity. Additionally, multiple goodness-of-fit measures offer support that

the constructs in the model discriminate.

Hypothesis Testing Strategy

Structural Equation Modeling (SEM) allows both confirmatory and exploratory

modeling; thus, it is suited to both theory testing and theory development. Modeling

usually starts with a hypothesis represented as a model, then operationalizes the

constructs of interest with a measurement instrument, and tests the fit of the model to the

obtained measurement data. The causal assumptions embedded in the model often have

falsifiable implications which can be tested against the data (Bollen & Long, 1993).

There are two main components of models that are distinguished in SEM. The

structural model shows a potential causal dependency between endogenous and

exogenous variables. The measurement model shows the relationships between latent

variables and their indicators. The analytics of exploratory and path confirmatory factor

analysis models, for example, contain only the measurement part, while path diagrams

can be viewed as a SEM that only has the structural part. Both are used in the analyses of Phase 2 of this dissertation.

Structural equation modeling (SEM) analysis was carried out using the AMOS statistical program, version 16.0 (Arbuckle, 2009). SEM was chosen as the best statistical methodology for several reasons. SEM has the ability to reduce measurement error by having multiple indicators per latent variable, test models with multiple dependent variables, model mediating variables rather than restrict to an additive model, test coefficients across multiple groups, and test the model overall rather than coefficients individually. Further, the graphical representation provides better visualization of the model.

The assessment of the SEM fit was conducted along three dimensions: overall, measurement, and structural (Meyers, Gamst, & Guarino, 2006). The overall fit in the SEM looks at the model as a whole through a variety of fit indices. The measurement and structural fit are evaluated separately because the two may indicate conflicting results. The measurement model fit is basically the confirmatory factor analysis of the latent variables. Indicators (the measured variables) are evaluated based the degree to which they represent the intended latent variable. The structural model fit is an evaluation of the causal paths between the variables of interest in the model.

Structural Model Testing

Figure 8 depicts the initial structural equation model. This model tested the nomological validity of the wine blog credibility scales developed in Phase 1 of the study by including three endogenous variables of trust behavioral intentions. The hypothesized relationships of the model were tested with the full data set. Specifically, the intent was

Figure 8. Structural Equation Model for Hypothesized Causal Testing
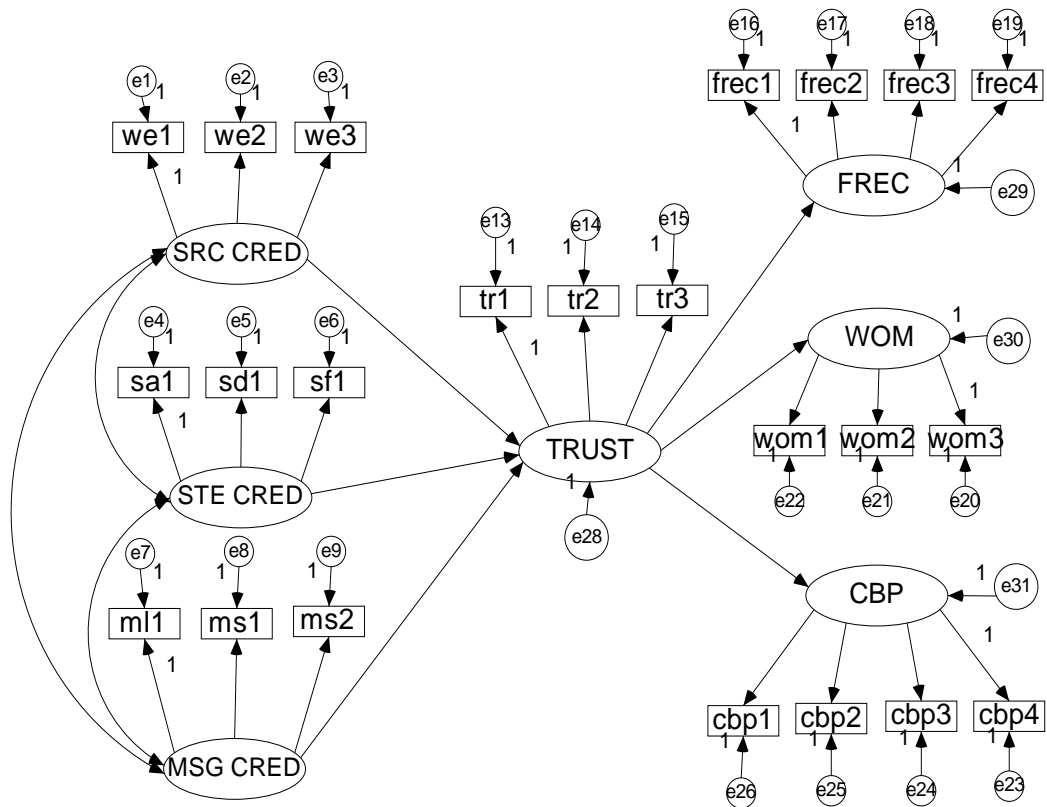
to test a model in which the three exogenous variables of wine blog credibility were hypothesized to have a direct effect on trust and an indirect effect on behavioral intentions as stated in Hypotheses H1 (a,b,c) and H2 (a,b,c).

The overall fit of the hypothesized model was evaluated by the same criterion used in the CFA analysis. Once the overall fit was conducted, the measurement model fit was assessed by examining the estimated factor loadings of each indicator for statistical significance. In addition, the composite reliability (CR) and the average variance extracted (AVE) was examined.

The hypothesized model was also assessed for structural fit at three levels to determine if the data supports the theoretical relationships specified at the conceptual stage. First, the signs of the parameter estimates (+/-) were examined for the hypothesized relationship between constructs. Second, because the strength of the relationship is indicated by the magnitude of the estimated parameters, the estimated parameters were examined for statistical significance (C.R. in excess of $|1.96|$) and practical significance ($\beta > .3$). Finally, the strength of variance in each endogenous variable was evaluated by the squared multiple correlations (R^2) with larger R^2s indicating greater explanatory power of the hypothesized antecedents.

Testing for Moderating Effects of Involvement

It was hypothesized in H3 (a,b,c) and H4 (a,b,c) that wine blog participants would develop their trust toward wine blogs via the central route (message credibility) under the condition of high involvement with wine the product and wine blogging, while those under the condition of low wine involvement and low wine blog involvement would develop their trust via peripheral routes (site and source credibility).

86

It is common in the involvement research literature to split the continuous involvement variable into categories. For this present study, the wine involvement scale and the wine blog involvement scale were categorized to produce two distinct groups using a procedure suggested by Bei and Widdows (1999) and Celsi and Olson (1988). A multiple-group SEM analysis was conducted to compare the standardized coefficients from the two groups, followed by chi-square difference tests to establish the statistical significance of the moderating effects. The chi-square difference test eliminated the need to compute alternate measures of fit (Sauer & Dick, 1993).

Chapter 5: Analysis and Results

The initial focus of this chapter is the step by step development of the wine blog credibility scales. This development was achieved through qualitative inquiry in Phase 1 and online survey data collection in Phase 2. The conceptualization of the constructs for wine blog credibility was outlined in Chapter 2. Based upon the initial literature review, it was concluded that wine blog credibility seemed to fit an initial structure of media evaluation through message, source, and site. Although it was not conclusive that the resultant structure from the data analysis would conform to the singular aspects of this component structure, it seemed appropriate to begin the phase one analysis with this structure as a benchmark. This structure was hypothesized to capture the credibility dimensions of the wine blog and also adequately predict trust and behavioral intentions in the subsequent Phase 2 model testing. Therefore, the chapter also discusses the use of these measures for hypotheses testing in a causal model. The data from both phases were analyzed using the analytic plan set forth in Chapter 4. The structural equation model (SEM), depicted in Figure 8, was tested via the conceptual model and hypotheses developed in Chapter 3.

Qualitative Inquiry

Online focus groups were used to develop the original item pool. The primary consideration for scale development was to obtain adequate content representation of the

88

domain from the focus group participants. After researching the wine blog domain, the geographical and timing considerations, and the timeframe of this dissertation, it seemed that an online digital Skype™ based set of focus groups would provide a methodology to generate items that would ensure that the scales for site, message, and source credibility characteristics had content validity.

Data Collection

The online focus groups were scheduled during a two week period. Geographical time zones were considered when creating available time slots. For ease of scheduling, half of the available time slots were sent to each half of the participants. Individuals indicated their first and second choice for a time slot. Only one participant did not receive his first choice. Reminder e-mails were sent to the participants the day prior to the chosen time slot. At the scheduled time, a conference call was initiated through SKYPE™ to the participants. On four occasions, a participant did not answer the preferred contact mode (landline, cell, or SKYPE™ account). One of these was due to a SKYPE™ to SKYPE™ failure (SKYPE™ account showed as offline). Two of the four no shows rescheduled for a later date.

The call began with a personal introduction, an indication that the call was being recorded, and an invitation for them to introduce themselves. All participants chose to introduce themselves and volunteered their relationship to wine blogging (e.g., blogger, reader, wine distributor). Some of the participants recognized each other from wine blog participation. The participants were reminded of the informed consent letter they each received and asked if they had any questions or concerns before proceeding. All participants verbally affirmed their desire to continue.

The focus group guide, previously described in Chapter 4, was followed as closely as possible. At times the lack of non-verbal cues diminished control and allowed avid commenters to jump around in the discussion of the dimensions. The conversation was guided back to the appropriate context but the interrelationships between dimensions perceived by the participants were noted. The conversational tone between participants was noted as they often directed their comments to each other, asking what the others thought about what was said. The focus group members participated on average for an hour with some calls lasting over 90 minutes. Fifteen plus hours of recorded material resulted from the completed focus groups. The focus group recordings were transcribed using Express Scribe© and individual text files were created for each participant to be used in the Crawdad Desktop 2.0© analysis (centering resonance analysis, CRA). The intent was to make sure that bloggers and readers, inside and outside the industry, were fairly represented in item generation. The digital translation yielded 106 pages of transcript, size 11 font, single spaced text.

Item Generation

The focus groups transcripts were analyzed using CRA. Research has shown that CRA accurately represents the "collective mind" (Crawdad Technologies, 2005). CRA Networks correspond to the average concept map produced by a group of people who have read the text. CRA analysis produced recurring themes that reflect the dimensionality of wine blog credibility. Using the CRA analytics, knowledge of the literature, interactions with the focus group, and the transcripts, an initial pool of 650 statements was developed. For example, several statements emerged within the "topical" theme and many of them recurred. One such statement that recurred was – *the*

consistency of posts within a wine blog makes the writer appear more professional. After reducing the statement pool for clarity, redundancy, and study application, 180 statements remained. These items were then sent to the independent wine blog expert evaluators and the Interactive Marketing expert academicians for clarification, redundancy reduction, deletion due to non-necessity of inclusion, rewriting, additions, and sorting into a tabular structure developed based upon the recurring themes from CRA and the hypothesized wine blog credibility structure set forth in Chapter 3.

From the independent evaluations, 63 statements were retained and developed into 7 point likert measures for use in the online survey questionnaire. For example, from the consistency theme mentioned above and the evaluations, a seven category likert item measure (SD-SA) was developed: *This wine blogger consistently talks about a particular wine geography*.

A questionnaire was developed to include the 63 statements from Phase 1 scale development, and also the scales for measuring the other variables of interest for testing the hypotheses in the model. The survey also included additional measures not analyzed for this study.

Questionnaire Development. The online instrument in the Questionpro® format was administered to a sample of 5 wine bloggers and 5 wine blog readers, who were not included in the final sample of the study. These individuals made comments on the administration difficulties, question wording, and timing of the survey on the online venue. This process enabled me to eliminate 6 problem items, leaving 57 items for full data collection. The questionnaire was adjusted for efficiency and reloaded into the

Questionpro® venue. This questionnaire can be found in Appendix C, in Questionpro® format.

Qualitative Phase Findings

The conceptual model in Chapter 3 hypothesizes the influence of wine blog credibility using three dimensions, site, message, and source. Blogs are both a media source and a website, so they invite evaluation by these dimensions. Since blogs have only recently been studied as an information source, the characteristics of these dimensions that indicate credibility are unknown. Therefore, the first step of this study was to identify the characteristics of the wine blog that individuals evaluate for credibility. This study confirms the importance of the three dimensional character for the evaluation of the wine blog. Focus group participants commented about the author of the content (source), the platform for the content (site), and the posted content (message) suggesting that, to some degree, an evaluation of each of the dimensions takes place. This study also confirms that some of the characteristics that are important for evaluation differ from previous traditional media studies due to the qualitative differences of blogs in general and the specific nature of the wine blog. Focus group comments implied that the voice of the wine blog is an independent author that is not subject to standards such as the independent review of traditional media.

The finding of an independent assessment of source, media (site), and message credibility conveyed in the previous paragraph is supported in the literature (Kiousis, 2001). However, the dimensional nature of the wine blog is not particularly clear cut. The sorting task by the wine bloggers indicated that there was some subtle overlap between the sub-characteristics of the dimensions. For example, "the credentials of this

wine blogger are impressive" was perceived to reflect both source expertise and trustworthiness. At other times the discrepancy was more severe, confounding the message and the source (e.g., "I trust the information in a post when the post seems to be objective") or the site and the message (e.g., "headlines make me interested").

Phase 2 Online Survey

The scales developed in Phase 1 were tested in an online survey. This section highlights the procedures adopted for further wine blog credibility scale refinement and the procedures and results of the causal model testing.

Online Survey Sampling Metrics

Although the length of the questionnaire was known to be a problem from the outset, the large number of questions (57) was needed for adequate development of the wine credibility scale. The tradeoff for the length of the questionnaire was the higher probability of a small response rate and, thus, a small sample for analysis. The intent was to host the survey in a timeframe to allow an incremental sample that would be adequate to run the analyses. Data collection was shut down when the incremental increase in sample size did not outweigh the timeframe for completion of the dissertation. The data collected was considered adequate for analysis.

The viral sampling procedure over a period of 40 days produced 285 completed surveys. It is very difficult to develop a metric for non-response bias in a viral campaign like the one used in this study. The number of hits on the survey during the survey timeframe was 1618. Of the 482 respondents that started the survey, 285 completed it. The hit to start ratio was 30%, the completion rate was 59%, and a hit to completion ratio was 18%. The high start to completion ratio was affected by the incentive. A completed

survey was necessary to be entered in the incentive drawing and the online survey platform required the completion of all questions to complete the last incentive question. The low hit to start ratio was most likely due to curiosity, an interest factor generated by the viral campaign. The completion ratio was higher than the average completion ratio found in all of the Questionpro© online surveys.

Online Survey Participant Profile. Confirmatory demographics for wine blog users were not available. Therefore, the profile of the study sample was compared to what is known about bloggers and wine drinkers in general in an effort to extrapolate representativeness. General blogger demographics were compared to the wine bloggers in the study sample. Wine drinking demographics were compared to the full sample because of the overwhelming majority of professed involvement with wine.

According to PEW Internet and American Life Project (2008), bloggers typically skew male (64%), are college graduates (75%), and have an annual income in excess of $75,000 (50+%). The study sample also skews male (76%), are college graduates (78%), and have an income in excess of $100,000 (50+%). According to winebusiness.com (1997), 45% of wine drinkers are male, 43% hold a college degree, 45% are 45 years or older, and 77% earn an annual income in excess of $50,000 a year. In the study sample, 76% are male, 81% holds a college degree, 49% are 45 years or older, and 81% earn an annual income over $50,000. The domain topic of wine gives the best explanation for discrepancies between the findings among bloggers. While the results were quite similar on education and gender, the increase in income among wine bloggers is likely due to the monetary outlay for the product of wine. The vast majority of wine blogs contain reviews and apart from receiving promotional wine to review (as relatively few do),

bloggers must buy their own product. When comparing the findings among wine drinkers, involvement with blogging gives the best explanation for the discrepancies. Most bloggers are male, educated, and affluent. It makes intuitive sense that those who engage with the community (readers) would possess similar demographics, affecting the profile of the sample. The similarity in the age categories suggests that the sample does indeed bear resemblance of wine drinkers at large. In addition to the comparative demographics, more than 10% of the sample has been blogging for at least a year and 43% have been blogging for more than three years. Overall, 32% participate with blogs more than 2 hours a day.

The Pre-analytical Process

The pretesting of the data collection instrument afforded the opportunity to create a small set of data to ensure that any conceptual and/or technical problems were eliminated before the analysis began. After the actual data collection, the data set was examined to remove any foreseeable inconsistencies in the data that could add additional error into the subsequent analyses (see Sonquist & Dunkelberg, 1977, p. 41). This editing process allowed inspection of the data to reveal aspects that could add error to the analysis and reduce efficiencies. The data was checked for redundancy in answers and abhorrent variation in answers, a particular problem for research conducted online (Briggs, Burford, De Angeli, & Lynch, 2002). Although normality tests are questionable at best, standard significance tests and visual graphs were conducted in the SPSS 17.0 program.   The Boxplots were examined for outliers and skewness. From these observations and analysis, items were eliminated that appeared to be severe outliers in the data. This analysis reduced the data set to n = 263. However, as will be seen in the

following SEM analysis, the resultant sample was further reduced to n = 249 due to incremental SEM specific analysis.

Phase 1 item generation was used to develop an online questionnaire to collect data to isolate reliable and valid wine blog credibility scales. The following Phase 2 analytics deal with purifying the 57 items by a 263 respondent data array (split 118 and 145) in order to isolate reliable and valid wine blog credibility scales.

Credibility Scale Analytics

Both a qualitative and quantitative approach was used to refine and purify the dimensions of the credibility scale. As specified in Chapter 4, detailed item analysis, exploratory factor analysis, and confirmatory factor analysis was used to guide the initial scale development and to assess scale reliability, dimensionality, and convergent and discriminant validity. In addition, knowledge amassed from the theoretical literature and interactions with the focus groups was used to qualitatively guide the purification process. This purification and refinement followed the recommendations for scale development as specified by Churchill, (1979); Delgado-Ballester, Munuera-Aleman, and Yague-Guillen (2003); Forsythe, Liu, Shannon, and Gardner (2006); Morokoff et al. (1997); and Sweeney and Soutar (2001).

As discussed in Chapter 4, the sample was split randomly to mimic a two prong independent sample data collection. Although independent samples are traditionally used to purify and confirm a scale, this procedure produces calibration and validation sub-samples (Delgado-Ballester,et al., 2003). Since there were timing issues and cost considerations in the data collection, this procedure was determined to reasonably imitate

the standard procedures and provide a robust assessment of the scale during the purification and refinement process.

Scale Purification. Using data from the random split of the dataset (n = 118), item analysis was conducted as suggested by a SPSS white paper (1998). Based upon this procedure items were selected that highly correlated with the measure (all items) as a whole and with the dimensions developed from the original content analysis and evaluation. The critical value for high correlation in the item analysis was (r > .50). Items that did not highly correlate with other items within a construct were eliminated, and the remaining items were assumed to have maximum internal consistency. Additionally, items that did not have a high correlation with the dimensions were also eliminated. Thirty items remained after the item analysis as seen in Appendix D.

Exploratory factor analysis. Using the 30 variable set, and the data from the random split of the dataset (n = 118), the appropriateness of factor analysis was satisfied with the Kaiser-Meyer-Olkin (KMO) measure for sampling adequacy and Bartlett's test of sphericity (see Table 3). The KMO (see Kaiser, 1974) measure of sampling adequacy tests whether the partial correlations among variables are small. A value of over .70 is considered adequate. The KMO of 0.847 indicated that the sampling was adequate to proceed.

An indicator of the strength of the relationship among variables is Bartlett's test of sphericity. Bartlett's test of sphericity is used to test the null hypothesis that the variables in the population correlation matrix are uncorrelated, thus, an identity matrix. The observed significance level (p = .001) was small enough to reject the hypothesis (Meyer, et al., 2006). It was concluded that the strength of the relationship among variables was

Table 3

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.847
Bartlett's Test of Sphericity	Approx. Chi-Square	2098.298
	df	435
	Sig.	.000

strong. This was yet another indicator that suggested that it was appropriate to proceed with the factor analysis.

An exploratory principle components analysis (PCA) with an oblique Promax (PRO) rotation was implemented along with a scree test criterion to identify the number of factors to retain. There is no single rule for factor retention. Multiple criteria, which are more or less rules of thumb, should be considered along with a priori theory and common sense (Netemeyer, Bearden, & Sharma, 2003). These include eigenvalues greater than one, scree test flattening, multiple indicators per factor, and amount of variance explained.

Following a set of strict criteria from Gorsuch (1983) and Gorsuch (1997) for identifying number of factors to retain and which items to keep for each factor (eliminate items with low factor loadings from .35 to .48, high cross loadings >.40, or low communalities <.3), eight components were extracted with eigenvalues greater than 1.0. However, Cliff (1988) warns that the eignevalue cutoff should be treated as a guide and not an absolute criterion for retention. An examination of the scree plot indicated marked flattening after 4 components which explained just above 51% of the variance. Both the pattern and structure matrix were examined for interpretive guidance. After elimination of items due to substantial cross loadings, five of the eight components retained a single factor loading. Comrey (1988) argues that it takes at least three items that load highly to identify a factor. It appeared that only the first three factors, which explained 46.4% of the variance, seemed appropriate to retain. Each of these factors related to a hypothetical dimension of the wine blog – site, source, and message. However, each factor had only three items which may not ensure content validity of the hypothetical structure.

A three factor solution model was retained from the purification sample of items and the factor analysis was again conducted. The variables descriptives and factor structure are shown in Table 4 and the explained variance from the EFA in Table 5. The three factor solution for wine blog credibility accounted for about 73% of the total variance. Furthermore, all items in the three factor solution had .70 or greater loadings with no cross loadings on the other factors. This shows evidence for the independence of the constructs and adequate internal consistency (Gorsuch, 1983).

Scale Validation. Confirmatory factor analysis (CFA) was used to assess the reliability and validity of each wine blog credibility construct. A measurement model with the three factors was specified and each of the nine indicators was specified to a factor according to the results of the EFA. Using the second half of the data (n=145), the confirmatory factor model was estimated using AMOS 16.0, maximum likelihood estimation (MLE) (Arkbuckle, 2009). To obtain multiple indicators for the hypothesized constructs, a more lenient factor loading of .60 was expected for retention of the indicators (Hair, et al., 1998; Bagozzi & Yi, 1988). In addition to chi-square, the indices of root mean square residual (RMSEA), comparative fit index (CFI), standardized root mean square residual (SRMR), and normed chi-square (CMIN/DF) were evaluated to assess the overall fit of the measurement model according to cut-offs described in Chapter 4. Following the overall model fit assessment, convergent and discriminant validity were examined using multiple measures.

Assessment of model. The overidentified model was examined for offending estimates and none were found. The confirmatory factor analysis indicated that all loadings of indicators were at or above the threshold of .60. All parameter estimates

Table 4

Descriptive Statistics from EFA Analysis

Component Name	Item	Factor Loading	Mean	Std. Deviation	Scale Reliability
SRC CRED	I think this wine blogger is knowledgeable about wine (WE1)	.923	5.98	960	.872
	This wine blogger knows the wine industry (WE2)	.907	5.69	1.162	
	This wine blogger seems to have a broad knowledge of wine (WE3)	.853	5.69	1.002	
STE CRED	I like the layout on this wine blog (SA1)	.886	5.47	1.118	.800
	This wine blog is easy to Navigate (SF1)	.841	5.43	1.040	
	This wine blog looks professionally designed (SD1)	.806	5.30	1.118	
MSG CRED	Catchy headlines make the posts on this wine blog more believable (MS1)	.868	5.38	.939	.737
	I like the entertaining content on this wine blog (ML1)	.804	5.53	.803	
	Catchy headlines add uniqueness to the posts on this wine blog (MS2)	.779	5.16	1.142	

Table 5

Total Variance Explained by Three Factor PCA Solution

	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings[a]
Component	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total
SRC CRED	3.691	41.014	41.014	3.691	41.014	41.014	2.797
STE CRED	1.708	18.976	59.989	1.708	18.976	59.989	2.798
MSG CRED	1.184	13.155	73.144	1.184	13.155	73.144	2.545

were significant. The chi-square test in the CFA was above the .05 minimum (χ^2 = 33.409, df = 24, sig = .096), but did not exceed the preferred threshold of .10. This statistic showed support for acceptable fit. Additionally, other fit indices chosen for evaluation were acceptable indicating a good fit between theory and data. The RMSEA value of .056 was below the .08 cutoff (Macallum, et al., 1996). The CFI was .980, above the cutoff of .950 (Hu & Bentler, 1999). The SRMR value of .034 was below the .05 cutoff (Byrne, 2001). Further, the normed Chi-square (χ^2/df) had a value of 1.392. This value fell under 3.0, the recommended range for model parsimony (Hooper, Coughlan, & Mullen, 2008). The CFA measurement model of the credibility construct is depicted in Figure 9.

Convergent validity and reliability.   Both tests of internal consistency support reliability of the scales (see Table 6). All three constructs exceeded the recommended threshold of .70 for coefficient alpha (Nunnally, 1978). The composite reliabilities for each construct exceeded the recommended threshold of .70 (Churchill, 1979). Convergent validity was indicated by both methods of analysis (see Table 6). All factor loadings of individual indicators on their respective constructs were positive and significant as suggested by Bagozzi and Yi (1988). Seven out of nine met or exceeded the .70 threshold suggested by Nunnally (1978). The average variance extracted (AVE) also exceeded the recommended threshold of .50 for each of the constructs (Fornell & Larcker, 1981).

Discriminant validity. Discriminant validity was assessed by multiple measures. A comparison between the AVE of each construct and the shared variance between the constructs was conducted (Fornell & Larcker, 1981). As reported in Table 7, the

Figure 9. CFA Measurement Model of Credibility Construct
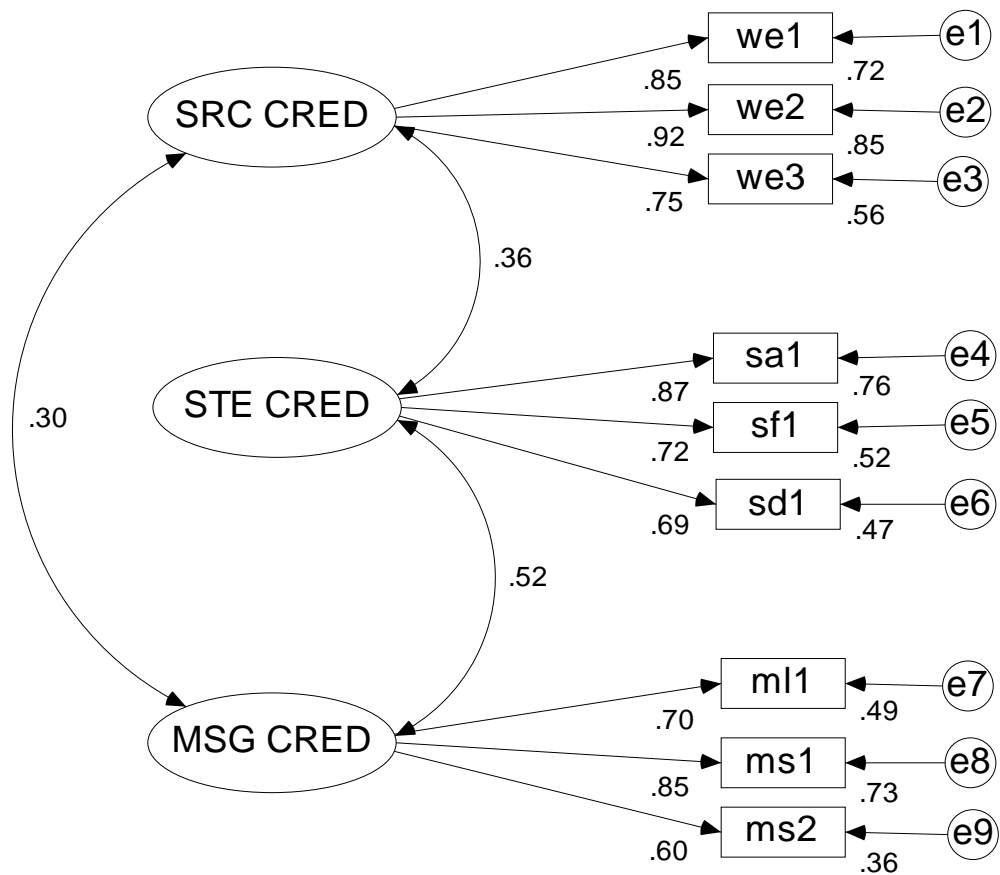
Notes: χ^2 = 33.409, df = 24, p = .096; CFI = .980; SRMR = .0343, RMSEA = .056 (.000 - .097); CMIN/DF = 1.392; n= 145.

Table 6

Convergent Validity and Reliability Assessment

Items	Standardized Loading	Critical Ratio	Average Variance Extracted (AVE)	Cronbach's alpha	Composite Reliability (CR)
STE CRED			.585	.800	.807
sa1	.872	10.766			
sd1	.689	8.098			
sf1	.722	8.575			
SRC CRED			.711	.872	.880
we1	.850	11.263			
we2	.920	12.637			
we3	.750	9.531			
MSG CRED			.525	.737	.764
ms1	.852	9.771			
ms2	.597	6.628			
ml1	.701	7.921			

Table 7

Discriminant Validity Assessment using AVE versus Shared Variance Test

Variable	Items	STE CRED	MSG CRED	SRC CRED
STE CRED	3	**.585**	.091	.132
MSG CRED	3	.303	**.525**	.275
SRC CRED	4	.364	.524	**.711**

Note: Correlations are below the diagonal, squared correlations (shared variance) are above the diagonal, and AVE estimates are presented on the diagonal

individual variance extracted (AVE) for each latent variable exceeded the shared variance (squared correlation) between the constructs. Discriminant validity was also tested in a chi-square difference test of the three paired constructs (Anderson & Gerbing, 1988). In one analysis, the correlation between constructs was set at 1.0 while the other was permitted to be freely estimated. As noted in Table 8, all three comparisons between the constructs were statistically significant. Further, acceptable goodness of fit measures for the measurement model indicated that the constructs in the model were different. Thus, all constructs achieved discriminant validity.

SEM Analysis

Byrne (2001) describes SEM as

"…a statistical methodology that takes a confirmatory (i.e., hypothesis testing) approach to the analysis of a structural theory…representing causal processes that generate observations on multiple variables. The hypothesized model can be tested statistically in a simultaneous analysis of the entire system of variables to determine the extent to which it is consistent with the data. If goodness-of-fit is adequate, the model argues for the plausibility of the postulated relations among variables; if it is inadequate, the tenacity of such relations is rejected" (p. 3).

The following Phase 2 analytics deal with the entire SEM data array, using the wine blog credibility scales developed in the previous section and testing the hypothesized causality of the SEM model in its entirety. The combined sample of 263 was used in this analysis.

Given the sample size, the basic data assumptions of SEM were generally satisfied. Univariate normality was satisfied based upon Kline's (2005) recommendation that only variables greater than |3| for skewness or |8| for kurtosis indicate concern. However, the Mahalanobis d-squared observations (from Mahalanobis, 1930) indicated

Table 8

Discriminant Validity Assessment using χ² Difference for Paired Constructs

Construct pairing	χ^2 free	χ^2 fixed	χ^2 difference	χ^2 significance
STE CRED / SRC CRED	52.935	193.731	140.796	Yes***
SRC CRED / MSG CRED	15.126	102.620	87.494	Yes***
STE CRED / MSG CRED	20.179	170.561	150.382	Yes***

Note: significance determined by χ² difference test, *p < .05, ** p < .01, *** p < .001

45 outliers for potential deletion. All cases were examined and 14 cases were dropped due to extreme values, leaving 249 cases for analysis.

Descriptive Statistics of Measurement Items

Table 9 reports the descriptive statistics for the full set of measurement items used in the main study. The mean scores ranged from 4.02 (I have no loyalty to this wine blog-r) to 6.61 (I have great interest in wine). The standard deviations ranged from .651 (I have great interest in wine) to 1.757 (I have no loyalty to this wine blog). According to Nunnally (1978), all of the latent variables demonstrated internal consistency (> .70).

Structural Equation Model Findings

This section highlights the protocol for hypothesis testing using SEM and the results obtained from the analysis. After the model was determined to have acceptable estimates, the goodness-of fit was evaluated at three levels as recommended by Hair, et al., (1998). Following an evaluation of overall fit, the model was examined at the measurement level and then at the structural level. This two step procedure was intended to ensure that the structural analytics stemmed from a measurement model with desirable psychometric properties so that the conclusions are meaningful.

Assessment of Overall Model Fit. To test the relationships among the variables, the hypothesized model was estimated using maximum likelihood method and evaluated for model fit according to the same criterion used in the CFA analysis. Although the χ^2 was significant, indicating an unacceptable fit between the observed data and the proposed model, all other fit statistics were within a range suggesting acceptable, albeit marginal, fit (see Figure 10). A specification search was conducted in an effort to achieve a better fit for the model if the modifications made strong substantive sense

Table 9

Measurement Item Descriptives

(Means, Standard Deviations, and Reliabilities of Model Data Set)

Scale Name	Scale / Adapted Scale Items	Item Names	Mean	SD	Cronbach's alpha
STE CRED	I like the layout on this wine blog.	sa1	5.45	1.047	.835
	This wine blog looks professionally designed.	sd1	5.38	.977	
	This wine blog is easy to navigate.	sf1	5.41	.996	
MSG CRED	Catchy headlines make the posts on this blog more believable.	ms1	5.35	.917	.724
	Catchy headlines add uniqueness to the posts on this wine blog.	ms2	5.18	1.069	
	I like the entertaining content on this wine blog.	ml1	5.49	.784	
SRC CRED	I think this wine blog writer is knowledgeable about wine.	we1	6.03	.904	.881
	This wine blogger knows the wine industry.	we2	5.75	1.071	
	This wine blogger seems to have a broad knowledge of wine.	we3	5.84	.932	
TRUST	I can rely on this wine blog.	tr1	5.48	.972	.795
	I have confidence in the accuracy of the information on this wine blog.	tr2	5.64	.869	
	This wine blogger is only concerned with promoting his or her interests. (r)	tr3	5.63	1.175	

FREC	I would feel comfortable acting upon the information given to me by this wine blog.	frec1	5.65	.810	.902
	I would make a wine-related purchase based on the advice I am given on this wine blog.	frec2	5.21	1.173	
	I would follow wine recommendations from this wine blog.	frec3	5.34	1.146	
	I would not hesitate to purchase wine-related products recommended on this wine blog.	frec4	5.05	1.250	
WOM	I would say positive things about this wine blog to other people.	wom1	5.92	1.057	.869
	I would recommend this wine blog to someone who seeks my advice.	wom2	5.46	1.270	
	I would encourage friends and relatives to seek wine-related information from this wine blog.	wom3	4.98	1.372	
CBP	I will return frequently to make comments in this wine blog.	cbp1	4.73	1.424	.765
	I will return frequently to read this wine blog.	cbp2	5.76	1.051	
	I have no loyalty to this wine blog. (r)	cbp3	4.02	1.756	
	I feel that there are not benefits associated with participating in this wine blog.	cbp4	5.37	1.181	
WBI	Participating in wine blogs is one of the most enjoyable activities that I do	wbi1	4.60	1.565	.803
	I like to be around people who participate in wine blogs	wbi2	4.48	1.426	
	Participating in wine blogs is not very important to me	wbi3	4.60	1.677	
WI	I have a compulsive need to know more about wine	Wi1	5.48	1.42	.717
	I like wine tastings	Wi2	6.32	.916	
	I have a great interest in wine	Wi3	6.61	.651	
	I like to engage in conversation about wine	Wi4	6.39	.791	

Figure 10. Structural Equation Model for Hypothesized Causal Testing
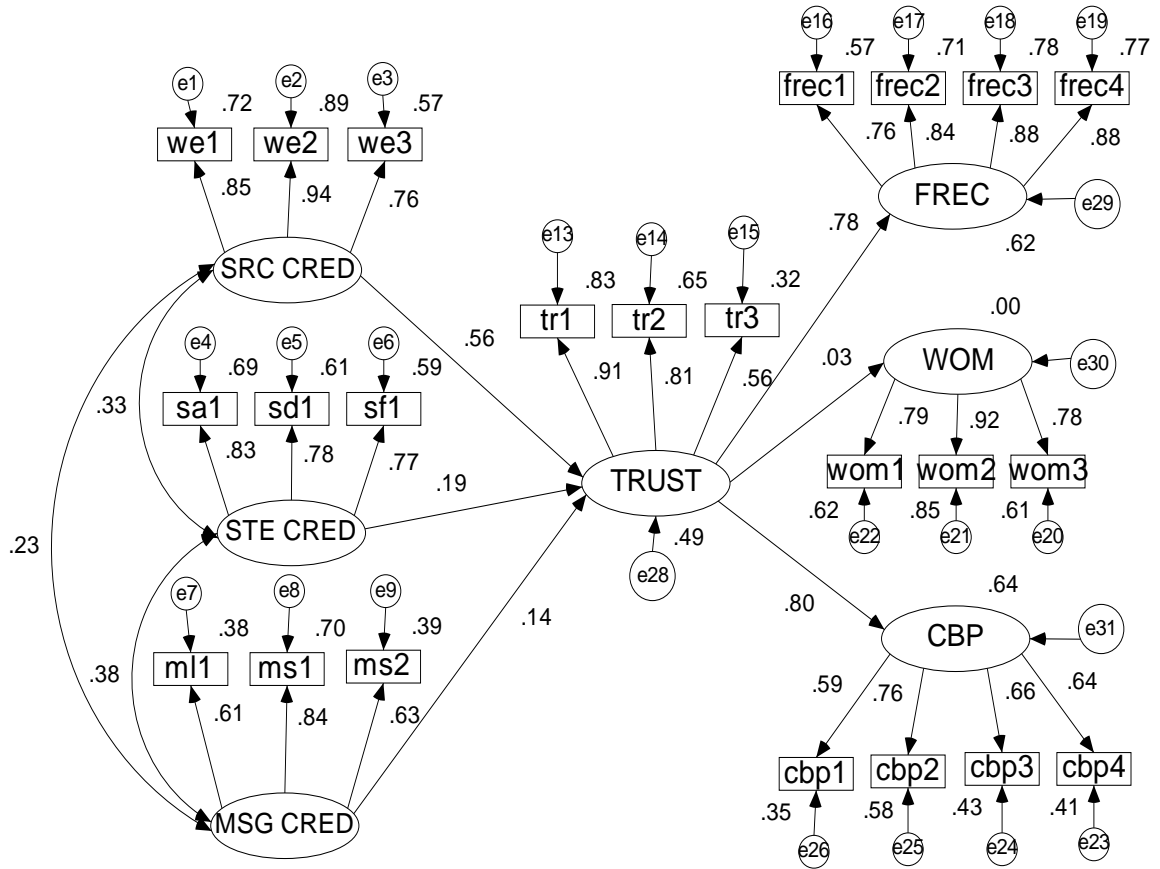
Notes: χ² = 472.589, df = 221, p = .000; CFI = .919; SRMR = .063, RMSEA = .068 (.059 - .076); CMIN/DF = 2.138; n= 249.

(Joreskog & Sorbom, 1993). The size of the modification indices did not indicate any theoretical suggestions for model respecification.

Assessment of Measurement Model Fit. The measurement model was examined. Table 10 reports the results of this evaluation. The estimated loadings of the indicators were examined for statistical significance. All loadings achieved significance at the $p < .001$ level. The composite reliability (CR) for each construct in the measurement model was computed to examine the degree to which the indicators represent the latent construct to which they were intended. All latent constructs achieved a composite reliability of greater than the 0.70 recommended cutoff (Hair, et al., 1998). Finally, the average variance extracted (AVE) for each construct was computed to further assess the convergent validity of the measurement model. Higher variance occurs when the indicators truly represent the latent construct. As reflected in the aforementioned table, two of the constructs fell short of the recommended cutoff of 0.50 (Hair, et al., 1998), indicating that more than 50 percent of the variance in the latent construct is not accounted for.

Assessment of Structural Model Fit. An assessment of the structural model was also conducted to determine if the model could offer any interpretive meaning. This assessment included evaluating the path coefficients between the hypothesized constructs and examining the amount of variance in each endogenous variable produced by the latent variables hypothesized to impact it. Table 11 depicts the results of this evaluation. The indirect effects of the influence of the credibility constructs on behavioral intentions were also examined. Table 12 reports the results of this evaluation.

Table 10

Assessment of Measurement Model Fit

Construct	Item	Standardized Loading	Mean	Std. Dev.	AVE	CR
STE CRED	sa1	.829***	16.03	2.819	.629	.837
	sd1	.780***				
	sf1	.770***				
MSG CRED	ml1	.613***	17.62	2.230	.489	.739
	ms1	.838***				
	ms2	.626***				
SRC CRED	we1	.847***	16.23	2.613	.720	.887
	we2	.942***				
	we3	.757***				
TRUST	tr1	.913***	16.74	2.530	.599	.812
	tr2	.805***				
	tr3	.562***				
FREC	frec1	.756***	21.25	3.875	.707	.906
	frec2	.840***				
	frec3	.883***				
	frec4	.877***				
WOM	wom1	.790***	16.36	3.297	.695	.872
	wom2	.923***				
	wom3	.780***				
CBP	cbp1	.591***	19.88	4.142	.444	.760
	cbp2	.763***				
	cbp3	.659***				
	cbp4	.641***				

Table 11

Standardized Parameter Estimates for Hypothesized Causal Paths

Hypothesis	Path	Estimate	Standard error	Critical Ratio
H1a (+)	STE CRED → TRUST	.191	.068	2.894**
H1b (+)	MSG CRED → TRUST	.139	.122	2.099*
H1c (+)	SRC CRED → TRUST	.558	.062	8.873***
H2a (+)	TRUST → FREC	.784	.048	11.380***
H2b (+)	TRUST → WOM	.028	.066	.394
H2c (+)	TRUST → CBP	.797	.090	8.438***

Note: *p < .05, **p < .01, *** p < .001

Table 12

Standardized Indirect Effects of Credibility Dimensions on Outcome Variables

Credibility Dimension	Indirect Effects		
	FREC	WOM	CBP
STE CRED	.150	.005	.152
MSG CRED	.109	.004	.111
SRC CRED	.438	.015	.445

The signs of the parameters between the latent variables were examined and the directions were all found to be as hypothesized (+). The magnitudes of the estimated parameters were evaluated for strength of the hypothesized relationships. Five of six parameters were statistically significant as indicated by a critical ratio in excess of |1.96|. Three parameters failed to achieve practical significance (structural coefficients above 0.30), indicating that the paths were not supported by the data. To assess the accuracy of the prediction in the structural paths, the amount of variance in each of the endogenous variables (as indicated by the squared multiple correlations (R^2)) was examined. In this present model, a strong effect size was reported for trust (.49), following recommendations (.62), and continued blog participation (.64), while a negligible effect size was reported for word-of-mouth (.01). To further evaluate the influence of credibility on behavioral intentions, the indirect effect of each of the credibility constructs on the dependent variables were examined. Two of the three paths were weak suggesting that source credibility was the greatest contributor to the proportion of variance accounted for in both following recommendations ($R^2 = .615$) and continued wine blog participation ($R^2 = .635$).

Assessment of Moderating Role of Involvement. The moderating role of involvement was hypothesized to include involvement with wine and wine blogs. However, upon examination of the wine involvement variables, it was evident that there was no low involvement with wine in the sample. Therefore, rather than dilute the variance between groups, the wine involvement variable was omitted. Two discrete variables for high and low involvement with wine blogs were created to compare the hypothesized paths from credibility to trust for both groups. The hypothesized model

117

was estimated independently for the two groups to examine the fit of the models and the relationships between constructs. A multi-group analysis was also conducted in AMOS to test for the statistical significance of any observed differences. This procedure created a baseline chi-square value for the pooled sample. The separate regression parameter estimates for each of the groups and respective fit indices are shown in Figures 11 and 12.

The overall model fit of both models was evaluated by the aforementioned fit indices. The low involvement fit indices indicate somewhat better fit to the data than do the high involvement indices (see Table 13). Table 14 reports the structural model evaluation of both models. The variance explained in the trust construct was similar between models. The structural assessment of both models indicated significance for two of the three paths from the credibility construct to trust. However, the insignificant path differed between models suggesting that there is reason to suspect that the estimates differed strongly between groups.

Pure moderator effect was tested using a multi-group specification of the structural model in AMOS (Arbuckle, 2009) and a manual constraint setting. To establish the statistical significance of the moderating effects of involvement with respect to the hypothesized paths in the model, an individual chi-square difference test was conducted for each of the paths between credibility beliefs and trust attitude. The baseline model was allowed to freely vary across groups while each path in turn was restricted to be equal across groups. Because these are nested models, the chi-square will always be lower for the baseline model because it has one less degree of freedom. If the chi-square improves significantly from the restricted model for each path to the baseline

Figure 11. Structural Model Depicting Path Coefficients for Low Involvement Group.
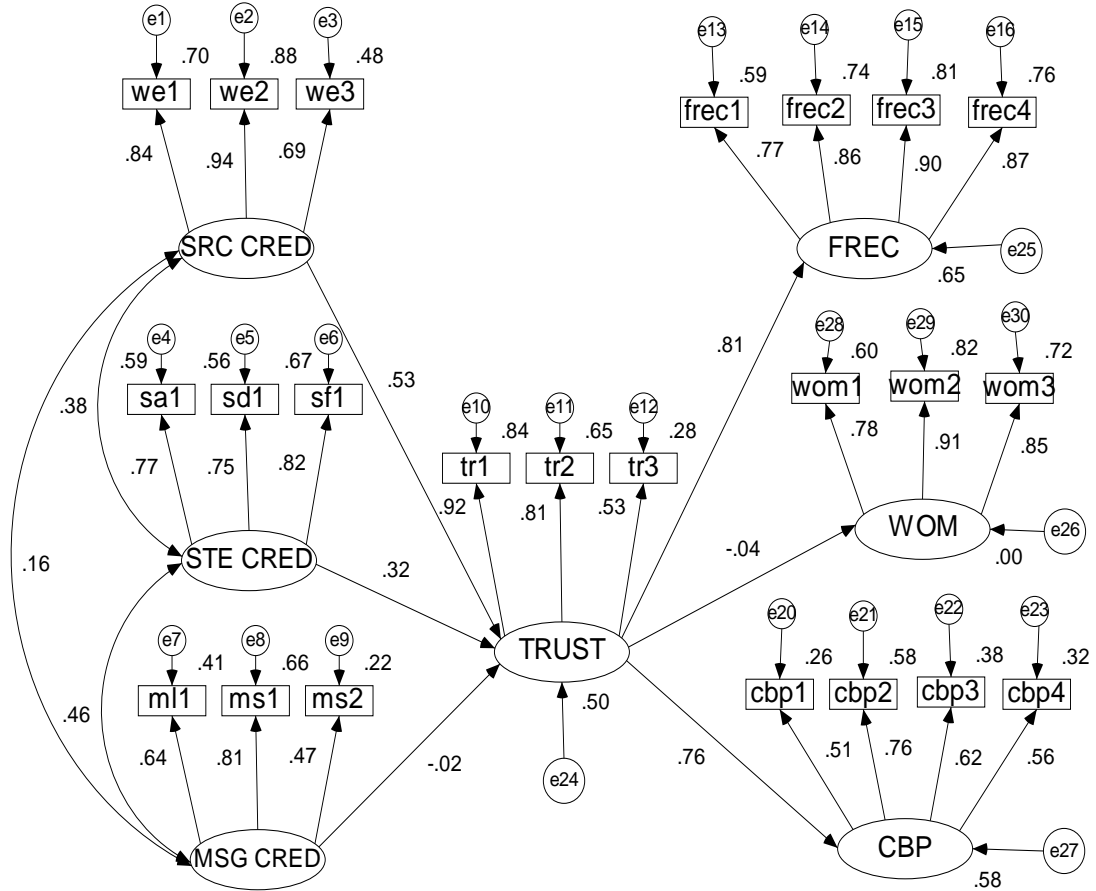
Notes: $\chi^2 = 354.143$, df = 221, p = .000; CFI = .905; SRMR = .0777, RMSEA = .072 (.058 - .086); CMIN/DF = 1.602; n = 116.

Figure 12. Structural Model Depicting Path Coefficients for High Involvement Group.
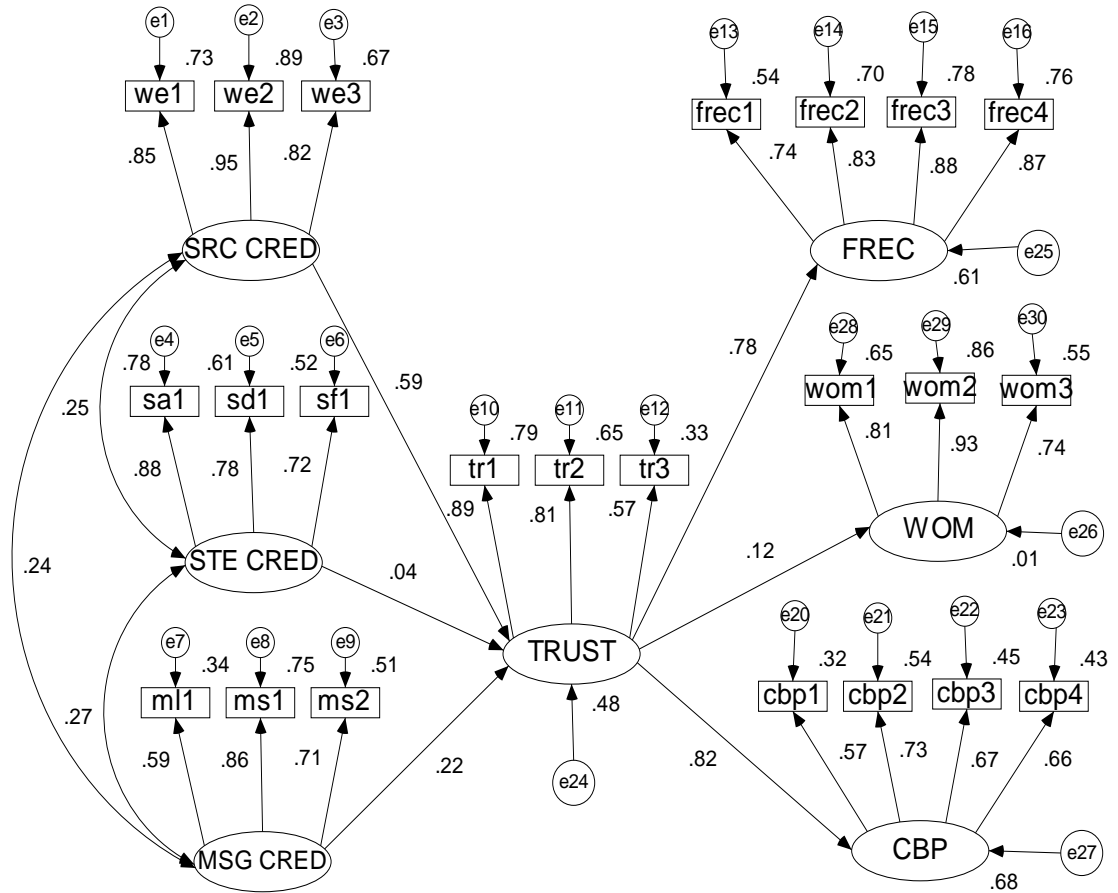
Notes: χ^2 = 467.558, df -= 221, .000; CFI = .861; SRMR = .083; RMSEA = .092 (.080 - .104); CMIN/DF = 2.116; n = 133.

Table 13

Comparison of Recommended Values of Goodness-of-fit Measures for High and Low

Involvement Models

Goodness-of-fit measure	Recommended value	Fit indices for Low INV	Fit indices for High INV
Root Mean Square of Approximation (RMSEA)	≤ 0.08 (good) ≤ 1.00 (marginal)	.072	.092
Comparative Fit Index (CFI)	≥ 0.95 (good) ≥ 0.90 (marginal)	.905	.861
Standardized Root Mean Residual (SRMR)	≤ 0.05 (good) ≤ 0.08 (acceptable)	.078	.083
Normed Chi-square (CMIN/DF)	≤ 3.00	1.60	2.12

Notes: Fit indices cutoff recommendations. RMSEA (Macallum, Brown, & Sugawara, 1996); CFI (Hu & Bentler, 1999); SRMR (Byrne, 1998; Hu & Bentler, 1999); CMIN/DF (Krause, Scannelland, & Calantone, 2000)

Table 14

Standardized Parameter Estimates for Hypothesized Causal Paths

Hypothesis	Path	Estimate	Standard error	Critical Ratio	Variance (TRUST)
		Low Involvement			.504
H4a (+)	STE CRED → TRUST	.318	.131	2.875**	
H4b (-)	MSG CRED → TRUST	-.022	.203	-.209	
H4c (+)	SRC CRE → TRUST	.534	.098	5.708***	
		High Involvement			.480
H4a (+)	STE CRED → TRUST	.037	.072	.448	
H4b (+)	MSG CRED → TRUST	.224	.153	2.479*	
H4c (+)	SRC CRED → TRUST	.591	.075	6.760***	

Notes: *p < .05, **p < .01, *** p < .001; low involvement n = 116, high involvement n = 133.

model, involvement can be interpreted as moderating. As reflected in Table 15, only the path between STE CRED and TRUST indicated involvement moderation.

Main Study Findings

The following provides a summary of the major findings of the main study. All of the hypotheses were tested with SEM.

Role of Credibility Beliefs on Trust

The first set of hypotheses stated that site, message, and source credibility beliefs would be positively related to an attitude of trust. The rationale for the general hypothesis was based on the predominance of trust studies that focus on the role of credibility in the formation of trust. The general hypothesis yielded to three sub-hypotheses which reflect the independent contribution of characteristics of the three theoretical dimensions of the wine blog (site, message, and source).

H1a postulated that there would be a positive relationship between the credibility beliefs of the wine blog site [STE CRED] and an attitude of trust [TRUST]. The direction of the path coefficient between the two constructs supported a positive relationship. As expected, the results indicated that site characteristics had a significant relationship with the formation of trust attitude as evidenced by a critical ratio of greater than $|1.96|$ (2.90). Therefore, the findings provide support for H1a. However, the magnitude of the estimated parameter lacked practical significance, falling below the cutoff of $\beta \geq 0.3$ (.190). Although the positive direction of the relationship was as hypothesized and the path was statistically significant, its interpretation is somewhat meaningless due to the effect size indicated by the regression coefficient.

123

Table 15

Moderator Assessment of Wine Blog Involvement using χ² Difference for Path Estimates

Path Evaluated	χ^2 Baseline model	χ^2 Path Constrained	$\Delta\chi^2$	Δdf	P value
STE CRED/ TRUST	821.669	826.342	4.67	1	.030*
SRC CRED / TRUST	821.669	824.459	2.79	1	.094
MSG CRED/ TRUST	821.669	821.695	.026	1	.872

Note: significance determined by χ² difference test, *p < .05, ** p < .01, *** p < .001

H1b suggested that there would be a positive relationship between the credibility beliefs of the wine blog message (the posted content) [MSG CRED] and an attitude of trust [TRUST]. The positive relationship between the constructs was supported by the direction of the path coefficient. The critical ratio of 2.31 indicated a significant relationship between message characteristics and the development of trust attitude. Therefore, the findings provide support for H1b. However, the magnitude of the estimated parameter lacked practical significance, falling below the cutoff of $\beta \geq 0.3$ (.144). The positive relationship of the path was in the hypothesized direction and statistically significant, but its interpretation is somewhat meaningless given the effect size indicated by the regression coefficient.

H1c proposed that there would be a positive relationship between the credibility beliefs of the source (author) of the wine blog [SRC CRED] and an attitude of trust [TRUST]. The direction of the path coefficient was found to be in the direction of the hypothesized relationship. Further, the results indicated a significant relationship between SRC CRED and TRUST, evidenced by a C.R. = 8.998. The magnitude of the estimated parameter also achieved practical significance ($\beta = .571$). Thus the findings provided strong support for H1c. Positive source characteristics [SRC CRED] are statistically and practically predictive of an attitude of trust [TRUST] in the wine blog.

In summary, hypothesis 1 proposed that each of the three dimensions of the wine blog offer individual contribution to the determination of an attitude of trust [TRUST] in a wine blog. Overall, the data indicated that characteristics of the each dimension have an individual positive impact on the determination of trust attitude [TRUST]. However, the findings also revealed that not all dimensions of the wine blog are equal in their

predictive power. Although the paths for STE CRED and MSG CRED were statistically

significant, the path coefficients did not convey practical significance. Thus, one must

conclude that the strong amount of variance in TRUST (.49) is predominantly the result

of SRC CRED.

Predictive Relationship between Trust and Behavioral Intentions

The second hypothesis stated that an attitude of trust with a given wine blog

would be positively related to behavioral intentions. The rationale for this general

hypothesis was based on the importance of trust in predicting behavioral intentions

demonstrated in online recommendation and e-commerce studies (Gefen, Karahanna, &

Straub, 2003; Pavlou & Gefen, 2004). The general hypothesis was further subdivided to

reflect a hypothetical range of behavioral acts that may transpire from trust in an attitude

object (wine blog) – to follow recommendations given in the wine blog, to spread word-

of-mouth regarding the wine blog, and to continue participation with the wine blog.

H2a postulated that there would be a positive relationship between TRUST and

FREC, the intention to follow recommendations offered in the blog post. The direction

of the path coefficient supported the hypothesized relationship. Further, a critical ratio of

11.8 indicated a significant relationship between the constructs. In addition, the

magnitude of the relationship achieved practical significance ($\beta = .801$). Thus the

findings provided strong support for H2a. A positive relationship exists between TRUST

and FREC, an intention to follow the recommendations set forth in the wine blog.

H2b suggested that there would be a positive relationship between TRUST and

the intention to spread WOM about the wine blog. Although the direction of the path

coefficient offered support for the hypothesized relationship between the two constructs,

the magnitude of the estimated parameter did not achieve statistical significance (C.R. = 1.107, p = 0.269) or practical significance (β = 0.076). Thus H2b was not supported by the data.

The non-significant finding associated with the estimated parameter between the TRUST and WOM suggests irrelevance of the path in the model. The sample size was adequate and was not suspected of causing the non-significant parameter. In addition, the path did not demonstrate any practical significance, nor did the R^2 (0.010) suggest any explanatory power of the independent latent variables that were expected to impact WOM. Therefore, the path is a prime candidate for elimination from the model in the interest of parsimony (Byrne, 2001).

H2c proposed that there would be a positive relationship between TRUST and CBP, the intention to continue participation with the trusted wine blog. The direction of the path coefficient supported the positive relationship between the constructs. The results also indicated that the relationship between TRUST and CBP reached statistical significance as evidenced by a critical ratio of 8.43. In addition, the magnitude of the estimated parameter achieved practical significance with a reported path coefficient of 0.790. Thus, the findings provided strong support for H2c. A positive relationship exists between TRUST and CBP, an intention to continue participation with the target blog in the future.

In summary, hypothesis 2 proposed that trust would have a positive impact on intentions to engage in specified behavior. Although the data supported a positive relationship between TRUST and each of the three outcome variables, strong support was found for just two. The data overwhelmingly indicated no relationship between TRUST

and the intention to share WOM about the wine blog. However, both FREC and CBP achieved statistical significance and strong practical significance. The accuracy of the predictions in the hypothesized paths was further supported by the strong amount of variance explained in both FREC (0.62) and CBP (0.64).

Wine Blog Involvement as Moderator on the Relationship between Credibility Assessment and Trust Formation

The final two hypotheses stated that involvement acts as a moderator in the processing choice of the characteristics of the wine blog's site, message, and/or source that signal credibility. Highly involved users are predicted to spend more time cognitively evaluating than those individuals who are less involved. Wine involvement was dropped from analysis when no variance was observed between high and low involvement to produce two groups. Tables 13-15 report the statistics evaluated for support of the hypothesized moderator effects of wine blog involvement.

H4a proposed that source characteristics of the wine blog [SRC CRED] would have more impact on individuals that have low involvement with wine blogs than high involvement with wine blogs. The direction of the path coefficient for both groups between SRC CRED and TRUST was positive and both parameters achieved statistical significance. The chi-square difference test supported a difference between the two groups when testing the source path. However, since both groups demonstrated a strong effect from source characteristics to trust (high involvement slightly stronger), the hypothesis was not supported.

H4b suggested that site characteristics of the wine blog [STE CRED] would have more impact on individuals that have low involvement with wine blogs than high

involvement with wine blogs. The direction of the path coefficient between STE CRED and TRUST was positive for both groups. Statistical and practical significance were reported for the low involvement group. Statistical significance and therefore practical significance was not achieved by the high involvement group. The chi-square difference test suggested variance between the groups on the path. The hypothesis was strongly supported.

H4c stated that message characteristics of the wine blog [MSG CRED] would have more impact on individuals that have high involvement with wine blogs than low involvement with wine blogs. The direction of the path was only positive in the high involvement group. Further, the low involvement group did not achieve statistical and therefore practical significance on the path. Although the high involvement group achieved statistical significance on the path, it fell short of practical significance. The chi-square difference test suggested variance between the groups on the path. The hypothesis was conditionally supported.

In summary, H4 (a,b,c) proposed that involvement with wine blogs would impact the dimension of the wine blog that would be more influential in the decision to trust the wine blog. Individuals that have high involvement with wine blogs were hypothesized to use the characteristics of message that would require more cognitive processing. Individuals that have low involvement with wine blogs were hypothesized to use source and site characteristics that are more easily evaluated. The data indicated that source characteristics predicted trust attitude for both levels of involvement. Site characteristics predicted trust attitude for the low involvement group while message characteristics only predicted for the high involvement group. Because the multi-group analysis supported a

statistical difference between the two groups on all paths, the conclusions can be drawn

that the two levels of involvement differ in the predictive characteristics of the wine blogs

even though source characteristics predicted for both.

Chapter 6: Discussion and Conclusions

The purpose of this study is to develop a wine blog credibility scale to investigate the impact of the credibility characteristics of a wine blog on trust attitude and subsequent behavioral intentions. Additionally, the moderating role of involvement with wine blogs in the relationship between credibility assessment and the attitude of trust toward the wine blog is investigated. Thus far, little (if any) research has attempted to quantify the behavioral effects of blogs as a domain of marketing activity. This study is a first step toward that goal.

Although all three credibility dimensions show a significant positive impact on the decision to trust the wine blog, only source credibility indicates practical significance. In addition, the data supports the impact of wine blog credibility on two of the three behavioral intentions as mediated by trust. Furthermore, the data do not fully support the central versus peripheral routes hypothesized according to the elaboration likelihood model (ELM).

The following sections provide a synthesis of the findings as they relate to the research objectives of this study. After the conclusions are a brief enumeration of the limitations of the study, a discussion of marketing implications, and recommendations for future research.

Credibility Characteristics of the Wine Blog

Dimensionality Observed within Focus Groups

This study hypothesized that the dimensions of the wine blog made independent contributions to the evaluation of the credibility of a wine blog. The findings of the focus groups confirm the importance of the dimensional character of the wine blog in its evaluation (site, message, and source). The observations in the study coincide with the findings of Fogg et al. (2002). Individuals look at aspects of the wine blog as a website to determine credibility. Does the site navigate well? Is the layout appealing? Does it appear to be professionally designed? Does it have a search function or use multi-media? These issues were enumerated in conjunction with remarks such as "I'll move on if…" Because these characteristics are the first impression of the wine blog, this observation suggests a two step decision in the evaluation of the wine blog as a whole. If the surface characteristics of a wine blog site do not include markers that indicate credibility, the wine blog may not be evaluated on source or content. A two-step assessment of credibility evaluation has already been hypothesized in the literature (Briggs, et al., 2002; Wathan & Burkell, 2002), yet most (if not all) of the published online credibility studies have limited the focus to first impressions (Briggs, et al., 2002). However, Briggs, et al. (2002) combined observations from two studies to suggest that the look and feel of the website are paramount to first capture the attention of the audience and signal trustworthiness of the site. After the initial reaction, other factors may be assessed.

The preferred source characteristics articulated in this study uphold the general structure of source credibility that prevails in the source credibility literature (Berlo, Lemert, & Mertz, 1969; Hovland & Weiss, 1951; Ohanian 1990) although the statements reflect the specific character of a wine blog. For example, demonstration of expertise

with wine and/or the industry was important to the user. In addition, the respondents also desired some level of integrity such as respecting comments posted on the blog or revealing conflicts of interest. In addition, the participants evaluated the appeal of the source and preferred a writer that was like them or shared their viewpoint.

The message characteristics expressed in this study depart somewhat from previous credibility scales for media. In traditional media studies, the assessment of message credibility was oriented toward capturing the objective, unbiased, "just the facts, ma'am" nature of the message. While respondents in this study still expressed an interest in content that is current, useful, and well-written, there also appeared to be much more focus on enjoyment during reading and also content that is opinionated. For example, there was repeated interest in the entertainment value of the wine blog – wanting entertaining content or liking to laugh while reading a post. Respondents expressed respect for a writer that could deliver content in an entertaining format. This observation is not particularly surprising given that this is the same year that an unscientific time.com click poll found Jon Stewart to be the most trusted newsman in America (Johnson, 2009). He did not achieve this accolade over other comedic types of news delivery like Colbert, but rather over prime-time television network news anchors like Katie Couric. It may be speculated that traditional media is not evaluated in the same way it was in the past and is in need of re-evaluation for appropriate measures of media credibility.

The respondents also felt that blogs should express the opinions of the writer. To merely report information without bias suggested to the respondents that the blog was an aggregator of information, not a personal voice willing to take a position. This finding supports Johnson and Kaye's (2004) observation that blog readers distrust traditional

media and choose blogs as an alternative to traditional information sources specifically because blogs do not hide their bias.

In addition, respondents felt that for posted content to pass the muster, it must have a hook. The desire for catchy headlines to help make a rapid determination of a post's relevance suggests how web information seekers look for information – quickly. These information seekers respect the content that first catches their attention and also helps them make the quick determination if the post will be of use or interest to them.

Dimensionality Observed in Sorting Task

Although the importance of the individual dimensions in the assessment of wine blog credibility was supported in the findings of the focus groups, the sorting task revealed some mental overlap between the characteristics of the wine blog among wine blog users. These additional findings support what is already known from the media credibility literature. The credibility of source and message are fundamentally interlinked (Fragale & Heath, 2004; Slatner & Rouner, 1996). The two dimensions influence each other simply because a credible source should produce credible messages. Likewise, a credible message should be produced by a credible source. The source credibility theory of Hovland et al. (1953) offers the best explanation of the inter-relatedness of these two evaluative dimensions of credibility. The central premise of this theory posits that the acceptance of the message depends upon the quality of the source.

The qualitative study also demonstrates overlap between site and message. As stated in the literature review, media studies have centered on comparative studies between media. In previous studies, media credibility was operationalized as an overall evaluation of the medium. Conversely, this study specifies a dimensional assessment of credibility and operationalizes site credibility as an evaluation of the design, features, and

134

appeal of the wine blog website. Thus, evidence in the literature to support or refute the

finding in this study was not located. It appears that the observed overlap in the sorting

task is a result of expectations or preferences about the design or style of the wine blog.

For example, headlines, an obvious indicator of message content, were expected to be an

integral part of site assessment also. Likewise, the length of a post is a matter of

preference on depth of information content, but also an issue for the functionality of the

site.

It appears that the three theoretical dimensions of the wine blog are somewhat

intertwined. Individual dimensional characteristics may be evaluated solely on their own

merit or used to augment each other in evaluation. It is difficult to tease the dimensions

apart, depending on the extent of mental overlap in the evaluation of the characteristics.

This observation is the likely cause for the substantial cross loading that occurred in the

EFA. Although this study acknowledged in the literature review that the evaluative

dimensions of the wine blog were interrelated, the study focused on the unique functions

of the dimensions of the wine blog to gain understanding of how users evaluate the

credibility of the wine blog. The scale development phase of this study revealed that

while there is a dimensional evaluative structure to the blog, in practice the measures

seem to be interrelated in some respects. Thus, there is an interaction effect in need of

further exploration in future studies.

Dimensional Influence of Credibility Characteristics

The positive influence of the independent dimensions of credibility on trust is

statistically supported by the data. However, as depicted in Figure 10 (see Chapter 5) the

dimensions are not equal in their predictive power. The magnitude of the relationship

between the credibility variables and TRUST ($\beta > .3$) indicate practical significance for only the source credibility variable [SRC CRED]. Thus, the proportion of variance accounted for in TRUST is a result of the source [SRC CRED].

This imbalance is further evidenced by examination of the indirect influence of the three credibility variables on the outcome variables. Although the path coefficients suggest a strong predictive relationship between TRUST and the outcome variables following recommendations [FREC] and continued wine blog participation [CBP], the indirect effects from both site credibility [STE CRED] and message credibility [MSG CRED] are weak. Again, the strong indirect effects of source credibility [SRC CRED] indicate its contribution to the proportion of variance accounted for in both following recommendations [FREC] and continued wine blog participation [CBP].

Before reflecting on the potential reasons for the above observation, it may be helpful to consider the items retained for wine blog credibility measurement. The characteristics of source credibility [SRC CRED] unilaterally merged on items of expertise. Other items pertaining to trustworthiness or appeal had substantial cross loadings on at least three other components and were not retained for further analysis. The items retained for site characteristics [STE CRED] could be superficially evaluated and captured the design, function, and appeal of the wine blog as a website. The characteristics of message credibility [MSG CRED] in the retained items reflected the believability, uniqueness, and entertainment value of the message content.

The explanation for the above dimensional influence in the findings may be related to the type of information in the wine blog, the level of analysis used in assessment, or an issue of measurement. The message of the wine blog is communicated

at the interpersonal level and is conceptualized as an electronic type of WOM information. Consumers are increasingly accepting online opinions (WOM) from people that they do not know (Godar, 2005) and the same seems to be true for wine blogs. The WOM literature provides evidence for the influence of a personal exchange of information among acquaintances on attitude change and decision making behavior (Arndt, 1967; Herr, et al., 1991). Research studies also indicate that the influence of the WOM communication is based on the perceived credibility of the source (Bansal & Voyer, 2000; Gilly, et al., 1998). Following the above logic, it is the credibility of the personal source that drives the use and influence of the information on the wine blog. Therefore, evaluation of the source dimension of the wine blog is preeminent when evaluating the wine blog as a whole.

Newhagen and Nass (1989) demonstrated that the criteria used to assess credibility are related to the source level of analysis which varies with the type of media evaluated. They reported that television credibility was assessed at the individual level as an aggregate of on-camera personalities because of the dynamic and immediate nature of television news delivery. Newspaper credibility was evaluated at the institutional level because of the perceived distance between readers and the people that produce the papers. This finding is important to consider with respect to the wine blog. Like television, the writer of the wine blog is a personality. The wine blog is dynamic and content changes at the hand of the author. Thus, it is expected that the credibility of the wine blog is at the individual level and the focus is on source characteristics.

Further, the wine blog is an individual voice and credibility is ultimately the responsibility of the author. Regardless the dimension, the evaluation is a reflection on

137

the author. Does he or she demonstrate expertise in blogs, in writing ability, and in wine? Does the site have good design, functionality, and appeal? It does if the author is an experienced blogger. Is the content entertaining, original, and believable? It is if the author is an experienced writer. Is the author an expert in wine? He or she is with demonstrated knowledge of wine and the industry.

Although the previous arguments are intuitive based on the known importance of source credibility in media and WOM evaluation, it would be inappropriate to minimize the importance of content validity in the measurement of a construct. The qualitative phase supported the hypothesized dimensions of wine blog credibility and produced solid sub-dimensions among the constructs. However, subsequent analysis eliminated the sub-dimensionality of the source credibility construct. The measurement items focused on the assessed expertise of the source. Further, it is not apparent how the conclusion of expertise was assessed. It could have resulted from characteristics of the source directly or instead from the message content or quality of the blog site. The absence of knowledge regarding the potential interaction of dimensional evaluation makes the interpretation of results somewhat questionable.

Influence on Behavioral Intentions

This study hypothesizes that an attitude of wine blog trust positively affects behavioral intentions to follow recommendations found in the wine blog, continue participation with the target wine blog, and spread WOM communication about the wine blog. The results of this study confirm two of these hypotheses.

The importance of trust has been widely emphasized in the e-commerce literature particularly with its impact on intention to transact with a website (e.g., Battacherjee,

2000; Corbitt, et al., 2003; McKnight, et al., 2002; Pavlou, 2003; Pavlou & Gefen, 2004; van der Heijden, et al., 2003). Likewise, this study provides support for the positive relationship between TRUST and a behavioral intention to follow a purchase recommendation or other wine-related advice [FREC]. Although this finding is not surprising, it is never-the-less the most important finding with respect to wine blogs' potential impact on marketing activity. Do wine blogs influence peoples' decisions to purchase? They certainly do.

The relationship marketing literature has strongly emphasized the importance of trust on commitment to stay in a relationship with an exchange partner (de Ruyter, et al., 2001; Doney & Cannon, 1997; Kumar, et al., 1994; Morgan & Hunt, 1994). This research stream was extended online and the relationship between trust and intention to return to an e-commerce website was also supported (Hallegatte & Nantel, 2006; Koufaris & Hampton-Sosa, 2004). This present study also provides support for the positive relationship between TRUST and the intention to return to the trusted wine blog in the future [CBP]. Apparently, an attitude of trust in the wine blog creates stickiness. Thus it can be concluded that when the wine blog is determined to be a trusted source of information, it will be retained in an evoked set of preferred information sources.

Surprisingly, this study fails to find any impact of TRUST in the most recently visited wine blog on the user's intention to spread positive WOM regarding the wine blog. This finding may have resulted for a couple of reasons. First, the measurement items adapted for this study may have incorrectly tapped into the spread of WOM pertaining to the wine blog. The items refer to spreading WOM about the wine blog (the attitude object) as an information source instead of the spread of information found

within the wine blog. In retrospect, of importance to the business reader is the estimate of the WOM influence in reach of content found in the wine blog. The focus on the attitude object instead of the information found on the wine blog may have limited a significant, positive impact of TRUST on WOM. Further, it may have been problematic that the statements assumed that the peer group of the survey participants would be candidates for wine blog use (e.g., I would recommend this wine blog to someone who seeks my advice). The outcome may have been different had the respondents been asked about their intention to pass the information from the wine blog to someone seeking their advice.

Second, it is likely that the lack of a significant relationship between TRUST and WOM is due to a theoretical misspecification of the model. The relationship between trust in an individual and subsequent positive WOM is supported in the employee-customer relationship literature (Gremler, et al., 2001). However, Gremler, et al. (2001) focused on interpersonal trust developed over time within an ongoing relationship (bank or dentist). This present study specified that the respondent was to answer the survey with respect to the most recently visited wine blog. It is likely that the majority of participants made a decision of initial trust in the wine blog rather than an interpersonal bond with the writer. This level of trust may have been enough to motivate an individual to follow a recommendation in the wine blog or return to the wine blog in the future, yet not at a relationship level that would motivate them toward transference of their own credibility to someone else on behalf of the wine blog.

Attitude Change due to Involvement

The purpose of testing the moderator effect of involvement with the wine blog was to tease out the effects of the strength of the relationships between the credibility dimensions and trust. The results of this study indicate that an individual's involvement with wine blogs moderates the relationship between site credibility beliefs and the decision to trust the most recently visited blog on one path. The path coefficients between both site credibility [STE CRED] and message credibility [MSG CRED] and TRUST were observed to be different between the two levels of involvement. However, this observation was not substantiated statistically by chi square difference tests. Only site characteristics indicated significance. The path coefficients between the source credibility construct and trust construct were similar between the two groups on observation and therefore did not support the peripheral route hypothesis.

This study applies the ELM to explain the involvement moderation effects on the relationship between credibility beliefs and a decision to trust in the online setting of wine blogs. The findings offer partial support for the stated hypotheses. The peripheral cues of the site are more predictive of TRUST in individuals with low involvement than high involvement. Although it appeared that message content was more predictive of TRUST for high involvement individuals than low involvement, this difference was not supported statistically. Most interestingly, the hypothesized peripheral route of source characteristics is important to individuals with both levels of involvement and substantively more predictive than either of the other two dimensions.

Involvement in this analysis is with wine blogs. Recall that variance with respect to the product of wine is not indicated in this sample. It is, therefore, assumed that the

difference between groups is not related to knowledge of or interest in wine but rather with experience and familiarity with the delivery system of the wine blog. The results pertaining to site and message credibility characteristics are as expected. Site characteristics [STE CRED] are not important for individuals with high involvement with wine blogs to form TRUST. Experienced blog users may have expectations regarding the characteristics that wine blogs should possess, but these characteristics are not important enough to rely on the blog. The wine blog is about the post, thus the content is what makes or breaks the credibility of the wine blog. Thus message characteristics [MSG CRED] should be more important to develop TRUST for individuals with high involvement. This hypothesis may have achieved statistical significance between the two groups if the indicator items have better tapped content elaboration instead of a more quick assessment strategy.

The conception of the dual routes of persuasion found in the literature may be the best explanation for the source credibility hypothesis results. ELM posits two distinct routes to persuasion, central and peripheral (e.g., Petty & Cacioppo, 1981, p.23), and source credibility is commonly conceptualized as a peripheral cue (Chaiken, 1980). However, previous research has suggested that the role of source credibility in the ELM may be more complex than a simple heuristic cue in the peripheral route (Chaiken & Maheswaran, 1994; Heesacker, et al., 1983). Under conditions of high involvement, source credibility cues can add to the argument in the central processing route. Further, source credibility may be considered a peripheral or central route depending on how the expertise of the source was evaluated. In this present study, the source items measure expertise with wine and the industry and a positive evaluation could have been

determined by various means such as: Those with low involvement could have used information in the About Me section such as industry experience, certifications, or affiliations. Those with high involvement may have used the content of the message to make the determination. Therefore, the results from the analysis in this study weakly explain the moderating role of involvement in the relationship between source credibility and trust attitude. Thus, further research is needed to specifically explore the impact of source credibility on the elaboration process.

In summary, the most interesting finding in this study was the overwhelming importance of source in predicting a decision to trust and intention to act. The relevance of the source may stem from what a blog is and what it is not. The blog is similar to face-to-face WOM because of the interpersonal-type communication delivered. The blog is different from a traditional website because of the changing commentary from the author, from a forum because control of conversation is held by the author, from review sites because of the interactive availability with the author, and from other media outlets because of the expected personal voice. It appears that the crux of the wine blog is centered on the author.

Medium theory (McLuhan, 1964) explores the influence of communication technologies and may offer further explanation for the observation of source influence. McLuhan (1964) stressed the importance of studying the effects of a medium as opposed to the message conveyed. He distinguished media based on the characteristics of the medium and the cognitive process each required. According to McLuhan (1964), each new channel of media shapes the way that individuals, people, and society view the world. Every medium is a language and new filters are required to view and listen to its

messages. Because blogs are a new medium, they have their own character and the purpose of this study was to examine this character. Blogs are hypothesized as a personal voice on the web, unlike previous traditional media or other online sources. As it turns out, this distinguishing characteristic is the filter that encourages interaction with the blog – evaluation, trust, and behavioral intentions.

Limitations

Although considerable controls were utilized to eliminate bias/error in this study, the results might be far from conclusive. The single product domain (wine blogs) might not be as appealing to some researchers as using a cross section of blog venues. However, it would be difficult to: 1) intensely study all of these blogs within a reasonable timeframe to complete this dissertation and 2) qualitatively evaluate the interpersonal nuances of all blog venues in order to establish measures and relationships for the modeling phase of the study. In the same vein, the sample of participants used to measure the concepts in the second phase model came from a sample of readers and participants of only wine blogs. Therefore, it would be problematic to generalize the results of this study to a broader blog population outside the specific wine venue selected. Although there seems to be parallels between wine and other social products, caution is suggested in extrapolating the results.

In Phase 2 of the study, trust behavioral intentions were examined with SEM. Examining a behavioral outcome and attributing it to antecedent effects through survey and SEM might lend rise to criticism as to why experimentation was not used as a method of analysis. In order to use experimentation in this research, the creation of "quasi real" blogs that would be necessary for the experiment would have at best diluted the

rationale and focus on the interpersonal nature of the blog relative to trust behavior. An artificial experiment would have given more control but would have sacrificed a rich study of the real character of wine blogs.

Another limitation in this study relates to the method of recruitment in the sample population. Non-probabilistic sampling creates sample bias. The respondents were recruited through purposive sampling and the initial wine blogs and subsequent viral additions may not have tapped the population of wine blog users. Therefore, the sampling procedure limited external validity.

The construct measurements for message and source credibility are another limitation in this study. The qualitative phase was conducted to ensure content validity for each of the credibility dimensions. However, the item analysis and EFA limited the full scope of measurement. When reduced, the items to measure source captured the sub-dimension of expertise alone. This inadequacy of measurement may have inflated the importance of source credibility findings. Additionally, the items to measure message credibility focused on aspects that were less cognitively assessed than hoped. This measurement issue may have reduced the implication of message importance between levels of involvement in the ELM hypothesis. It may have also reduced the importance of the dimension in predicting trust in general. Further analysis is warranted to examine the interrelationships of the sub-dimensions that impacted the factors produced in the EFA.

Lastly, as stated in the methodology, respondents were asked to reference their responses to the wine blog that they most recently visited. The literature suggests that trust may develop over time or may occur swiftly depending on context. This study had

no means to assess the level of activity respondents had with the wine blog that they last visited. As such, the predictive power of the individual dimensions may have been diminished. If they had no prior experience with the wine blog that they last visited, surface characteristics may have been more critical or the evidence of wine blogger expertise may have superseded other characteristics. If they had prior experience, it is doubtful that site characteristics would have predicted.

Marketing Implications

This study addresses the important area of user-generated content. The potential of market conversations initiated by consumers is widely speculated, yet there is little debate that there has been a shift of power in communication. Thus far, decision makers appear to be apprehensive toward maximizing opportunity in this area. In an attempt to harness the potential of these market conversations, this research investigated the role of credibility in the development of trust in a wine blog. From this study, the following implications for marketing, co-mingled with implications for the blogger (successful bloggers are a prerequisite for marketing use), are identified. While this study did not specify that the evaluated wine blogs must be personal and independent, there were a mere handful of evaluated blogs that could be considered corporately affiliated. Therefore, the implications of this study are limited to the independent, personal wine blog.

Source Expertise

It appears that the expertise of the author of the blog bears the most weight in the overall assessment of credibility of the wine blog that leads to a trust decision and subsequent behavioral intention. Therefore, for a wine blog to be successful as an

information source, the blogger needs to signal to readers that they have expertise in wine. Signaling theory, applied to the analysis of online communication, posits that individuals manage their identities online through the use of identity markers such a technical expertise, use of a particular language, or having "bells and whistles" (West and Turner, 2009). These markers communicate qualities about the senders of communication. The qualitative phase of this study (focus groups) indicated that opinionated, independent, and topically focused posts were important aspects for evaluation of expertise credibility. Of importance to the blogger is a demonstrated expertise which may be signaled through a topically focused experience with wine or a connection with the wine industry, using the vernacular associated with wine expertise, and/or having a site that suggests professionalism or a level of seriousness about wine. The signaling of specific expertise is also important to the marketer. Marketers might garner transference of credibility from a blog when they concentrate on one blog or group of blogs that particularly fit their domain. In this sense, they will have an independent voice(s) speaking about their offerings (e.g., old vines vs. new vines, NY state wines).

Two-step Model

The qualitative phase of this study focused on the aspects of the wine blog that a reader might evaluate to make a decision about using the wine blog for information. Much of the dialog in the focus groups pertained to the initial assessment of the surface characteristics of the blog as a website. If the site did not appear to be professional, did not load quickly, and so on, the participants indicated that they would move on to another site. However, the results of the survey analysis indicated that the site of the blog fell behind source characteristics in a decision to trust the blog for information use. It is

147

important to take both phases of study into consideration. Phase 1 revealed that surface characteristics are important for further evaluation of the blog. Results of Phase 2 alone might suggest that the expertise of the blog source is sufficient for a blog's success. Taken together, this research study suggests that there is a two-step evaluation taking place and attention must be given to multiple characteristics. For example, while site characteristics are necessary in a decision to look at a blog further, they are not sufficient for a positive blog evaluation. Conversely, source expertise is not sufficient either. The source will not have the opportunity to be evaluated if the site has turned off the reader.

Writing Style

Bloggers are writers and they must know how to present their prose. The three items that remained in scale development of Phase 2 indicated the importance of capturing and maintaining interest. Catchy headlines are important. Online readers want to quickly make a decision about the relevance of a topic. Entertainment value is also important. Not only do readers want content that is fresh and unique, they want it delivered in an entertaining fashion. Therefore, expertise in writing must accompany expertise in wine for success.

Peripheral vs. Central Route

Phase 2 (SEM analysis) of this research indicates that there are differences in the influence of the dimensions of credibility characteristics of the blog on an attitude of trust. The differences pertain to the level of involvement with wine blogs as a delivery system of wine information. Site characteristics appear to be more influential to low involvement users, message characteristics to high involvement users, and source characteristics to both. However, the same characteristics (peripheral cues or persuasive

148

arguments) can be evaluated differently depending on the level of involvement with wine blogs that the reader possesses. Therefore, unless one is primarily interested in the novice or experienced wine blog user, one must approach the routes at multiple levels.

Further, although the quantitative phase of this study did not find variance in involvement with the product of wine, there is potential variance in knowledge of wine among the respondents. Therefore, it is important to determine the target population to which the blog is written (e.g. wine 101) and keep the population in mind when writing.

Outcomes

The Phase 2 significant findings for the influence of the wine blog on the outcome variables of following recommendations and continued participation with a target wine blog are of particular interest to the marketer. First, wine blogs do indeed influence the purchase intentions of the individuals who read them. This finding is further substantiated in an environmental scan of comments posted in wine blogs which offer evidence that purchase behavior has occurred. From the traffic indicated on many of the top wine blogs, it appears that more and more wine consumers are searching for information online. Further, traditional wine media is suffering from the same downscale in subscriptions that the rest of the industry is facing. Even if that were not the case, the lead time for traditional media can be weeks, if not months. Bloggers are a viable option to quickly get information into the hands of consumers. Therefore, the market conversations that occur in cyberspace are not only valuable to the marketer, but necessary.

Second, wine blogs influence the intention to continue wine blog participation (i.e. return to the same wine blog in the future). In essence, this is a measure of stickiness

of the wine blog. When users establish the benefit of a particular wine blog as a good source of information, they will return to it in the future. Wine blogs that have a following, in a sense, have developed a tribe. The conversations between the blogger and commenters can indicate the target market of the wine blog which is necessary to identify bloggers that are suited for market conversations. Unfortunately, there is no short cut. It takes some concerted effort to identify the appropriateness of a wine blog to the message of the marketer yet the effort is worthwhile. Target markets are more fragmented than ever and a broadcasted message is just not relevant anymore.

Wine Reviews

One of the concerns about the credibility of blogs pertains to reviews. The FTC has implemented guidelines about disclosure if reviewed products have been given to the reviewer at no cost. If a product has been given free of charge or if there is payment for a review, the blogger must expressly say so. In this sense, the audience can reasonably decide if a positive review has been biased by a free product. One of the ways to mitigate this appearance in many product categories is to send the product back after the review. Wine is a consumable product, thus it cannot be returned after use.

Historically, traditional wine media (e.g., Wine Spectator, Wine Enthusiast) have published reviews about wine that has been sent free of charge from wineries, making free wine for review an industry standard. The troubling issue is that published wine reviews are, in general, positive, another review aspect left over from traditional wine media. There seems to be a gentleman's agreement between the winery and the reviewer that if you can't say anything good, don't say anything at all. After all, an 89 point review can be the death of a particular wine vintage. Rarely, if ever, are negative reviews

seen in print. Shelf talkers in retail are lacking on many wines that were dismissed by reviewers. So from the marketers perspective, the big question is "will wine bloggers abide by the same code?" Overall, there are relatively few big, traditional media wine reviewers and wineries generally know the taste preference against which their wine will be judged. Wine bloggers represent a more diverse and unknown preference range. There is risk that the nontraditional media, with no gate keeping governance, will publish permanent, opinionated, negative comments in cyberspace that could damage the potential of a released wine.

Bloggers discussed the impact of positive reviews on credibility at both of the Wine Bloggers conferences (October, 2008 and July, 2009). There were some that felt that negative reviews would enhance the perception of credibility of the positive reviews on their blogs. However, the overwhelming consensus was that there are too many wines to waste time writing about bad ones. Further, they felt that people are not really interested in what wines to avoid, but rather are looking for what wine to grab for dinner. Of course, these are general statements with no guarantees of absence of risk.

Therefore, it is extremely important for the marketer to know the bloggers solicited for promotional content. Sending samples off to bloggers randomly is like throwing darts at a board blindfolded such as pin the tail on the donkey. There are well over 500 wine bloggers to date and taking them to dinner is not the best way to get to know them. Read their blogs, both the posts and the comments. Get involved in the conversation. Blogs are typically quite transparent and a good fit should not be that difficult to ascertain.

One Final Word – Metrics

Whether academic or industry, when the discussion of the business value of blogs ensues, it is never long before the return on investment outcome arises. The value of social media is a hotly debated topic in the boardroom and across the aisle with social media proponents. Especially in today's economy, companies do not have the luxury to spend money frivolously. A recent article in Business Week (Baker, 2009) offered many of the oft cited criticisms about the value of social media and warnings about the promises and pitfalls. At the end, the article quoted Susan Etlinger, a senior vice president at a consultancy group. She argued that the default assumption that everything can be measured in ROI is misleading. Social media offers harder-to-quantify dividends such as trust and commitment.

There are currently proprietary investigations on substantiating the ROI from wine blogs in the wine industry. However, no conclusions have yet been published. The real benefit of wine blogs comes less from the quantifiable purchase impact and more from capacity to build brand awareness. For the small winery, there may not be a better course of action. Brand awareness is the first step in brand building which has a direct impact on brand sales. Murphy Goode winery is a prime example of a small winery that used social media to build brand awareness. They created a reality-type contest to hire a social media expert for their winery and placed a virtually obscure winery on the map.

Overall, social media such as the wine blog is part of a balanced marketing strategy that also includes promotional events (tastings), competitions, and traditional media. The use of social media is still in its infancy in marketing. And while the jury is

still out on its value, it would be premature to disregard the potential of social media just yet.

Directions for Future Research

This study was a first step to quantify the behavioral effects of blogs and it may have raised more questions than it answered. Little research has explored the characteristics of blogs as an information source. Thus there are further opportunities for research. The current study needs to expand and include other populations and product categories and also consider how the perceived credibility of blogs compares to their traditional counterpart. During the current study, animosity between traditional wine media and wine bloggers was observed. There seems to be a battle for territory and credibility is at the center of the argument. Traditional media has been forced to downsize. Subscriptions have declined and so have advertising sales. At the same time, bloggers have vastly increased their readership and profile as a viable information source.

This situation is not isolated to the wine industry. A recent New York Times article (Wilson, 2009) profiled a young fashion blogger that was given a front row seat at shows such as Marc Jacobs in Milan. Many designers have adjusted to the new fashion delivery system. Their collections are posted in cyberspace long before the lead time in traditional media can do likewise. Therefore, the fashion industry is a viable next step to test the developed blog credibility measures and the relationships set forth by the model in this study. In addition, comparative research between blogs and traditional media is warranted. Further, since blogs are a global phenomenon, cross-cultural implications should also be investigated.

As noted in the limitations section, this study did not use experimentation in an effort to more realistically identify characteristics of blogs that help users establish credibility that impacts an attitude of trust. Now that a rich pool of characteristics have been identified, the obvious next step is to set up an experiment using "quasi real" blogs to better test the relationship between evaluation of the blog and an attitude of trust.

The main objective of this dissertation was to identify the indicators of the three individual components of wine weblog credibility (media, message, and source). Interaction effects between media, message, and source credibility are supported by a variety of traditional and online research findings (e.g., message influences source evaluation, source influences message evaluation, perceived credibility is a function of both source and channel characteristics) (Slater & Rounter, 1996). Whereas it is important to study and understand the complexity of credibility assessment interactions, it was beyond the scope of this dissertation. However, future research should examine more carefully the intertwined functions of blog media, message, and source credibility for credibility evaluation and their impact on behavioral intentions as mediated by trust.

In terms of WOM communication, additional research is needed that focuses on community in the blogosphere as it pertains to the diffusion of information. Blogs are part of a social network and information flows through the links. There are variables that impact the WOM influence in the community. Therefore, research is warranted to study the role of blogs' (eWOM) credibility in the flow of information in a network model of influence (Watts & Dodds, 2007).

Finally, other variables should be examined that are relevant to the model. In this present study, risk was not directly measured and was instead assumed to be mitigated by

trust when there was an intention to engage in a behavior. The literature review offered specific risks associated with wine purchase from the wine-related marketing literature. Therefore, future research should measure the associated risk variables to more fully examine the relationship between trust in the blog and risk laden behavioral outcomes. Propensity to trust is another relevant variable to the model. This study specified that trust is not a personality trait, but rather occurs in a specific situation. However, some individuals trust others more freely while others have more difficulty. It is likely that a propensity to trust moderates the relationship between credibility of the wine blog and an attitude of trust.

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166

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Appendix A

Focus Group Guide, Phase 1

Thank you for participating. I'll strive to be a good steward with your time.

1. Please recall the information letter that you read. Does anyone have any questions or concerns regarding your participation?

2. Also, at this time this research is proprietary to my dissertation and to ensure the privacy of all participants, it is important that you do not discuss what took place in this group once the session is concluded.

I'm going to set the stage for our discussion:

1. I am interested in wine blogs being used as an information source to make decisions like:

    a. Stay and read a wine blog

    b. Do something that the wine blog might suggest

    c. Spread the information from the wine blog with others

    d. Return to the wine blog in the future

2. My overall perspective for the study is to ascertain what makes one wine blog more believable over another wine blog – and ultimately, can you trust it to use it for something.

3. I'd like to stay within a time frame of about 15 minutes per section and there are 4 sections, so your responses will need to be focused.

First, think of the wine blog as a website.

1. When you click on a wine blog site for the first time, what do you initially look for?

2. Do you have expectations of what a wine blog site should look like or what it should contain? What?

3. What makes a useful wine blog site?

4. What makes one wine blog site better than another?

5. What are the most important wine blog site elements that would make you stay, read, and/or comment?

Proposed Probes:

- Ease of navigation/functionality
- Visual design elements
- Look and feel
- Search ease
- Grammar/ typographical errors.

Next, I'd like you to think about the post or the message content of the wine blog.

1. In general, when you read the text in a wine blog, what are you thinking or looking for?

2. Is this different when you read specific information in the wine blog?

3. What are the most important things about a particular post that makes you stay and read the wine blog?

4. How do you decide if what you are reading is true – what makes it believable?

5. How do you decide if what you are reading is useful – or what makes it useful?

6. Do you use anything else to judge the information?

7. Do you read the comments on a post?

8. What are the most important things about a particular post that makes you comment on it?

9. Is good wine information easy to find in wine blogs?

Proposed Probes:

- Structure: organization

- Discussion focused – dialog vs. monolog

- Appropriateness/usefulness/importance

- Content: comprehensiveness, accuracy, currency

- Advertisement & content

- Disclosure for choosing topic

- Shared values

- Bias, objectiveness, balance

- Sources cited

- Provide factual evidence

- Quality/style

Finally, think about the writer of the wine blog in the next few questions.

1. Does it matter to you who wrote the wine blog? Why?

2. What are the most important things about the writer that makes you stay and read the wine blog?

3. Do you read the wine blog because of the text, the writer, or both?

4. How do you know if the writer is knowledgeable regarding the information they are discussing?

5. How do you know if the writer is trustworthy regarding the information they are discussing?

6. Does it matter?

Proposed Probes:

- Expertise (knowledge, experience, competence)

- Honesty (well-intentioned, truthful, transparent, authentic, objective)

- Offline identity disclosure

- Community

- Reputation (past behavior, what others say – comments)

- Predictability (act consistently)

- Truthfulness

- Unbiased

General Characteristics of Wine blog Credibility: The characteristics that keep people coming back.

1. What makes an ideal wine blog? Why?

2. What really turns you off about a wine blog? Why?

3. What is it about a particular wine blog that makes you return to it?

4. What types of wine blogs make a difference in your behavior? (For example, what wine to buy, how to get it, how to store it, what you talk about, etc.

Is there anything else that you feel may add to my understanding of how wine blogs may be evaluated by users?

Thank you all so much for participating in this study.

Appendix B1

Instructions for Sorting Task

In this word document you will find several pages of statements (~130 statements) and a set of dimensions. Your task is to categorize these statements on the basis of their "best fit" with the dimensions and subcategories of site, message, and source.

For example - statement:

- Typos make me think the wine blog is not professional.

Example courses of action:

You may choose to place this statement in Site dimensions, under Initial Appearance. If this is the case, please type SIA next to the statement (S for site, IA for Initial Appearance). Each of the dimensions/subcategories is designated for you. OR

You may find that the wording of the statement should/could be clearer to capture a particular dimension subcategory. In that case, please rewrite your suggestion next to the original. OR

You may categorize a subcategory as other if you think it should belong somewhere but it doesn't quite fit the dimension/subcategory listed, for example, MO for Message Other (you may suggest one). OR

You may feel that the question does not get at anything at all and should be deleted. Please place an "X" after any statements to which this might apply.

Please note: I have chosen you to participate because I consider you an "expert" in wine blogging. I expect that you will find some of these statements contrary to what you know to be true in your personal experience. However, you are not evaluating the statements on correctness. They are derived from the text of the focus groups.

Appendix B2

Hypothesized Wine Blog Credibility Structure for Item Generation

Site Dimensions	Visual Design
	Functionality
	Initial Appearance
Message Dimensions	Content
	Style
	Appeal
Source Dimensions	Expertise
	Trustworthiness
	Appeal

Appendix B3

Item Pool for Sorting Task

Typos make me think the blog is not professional.

This wine blogger knows the wine industry.

I think this blogger is knowledgeable about wine.

Bad wine is not a good topic for a post.

The blogger on my site is a real student of my favorite wine region.

Headlines in a blog shouldn't be humorous.

The credentials of this wine blogger are impressive.

My Wine blog posts educate me on the state of the industry.

The awards my wine blogger has received adds credibility to the blog.

Commenting in my blog is like having a conversation with a friend.

My wine blogger has been blogging for years.

When a unique wine topic is posted on my blog, it interests me.

Topics discussed across a few wine blogs are more believable.

My wine blog's posts are very informative.

Unique topics develop into entertaining reading.

There is no reason for me to read a blog that has an anonymous writer.

I don't mind that this wine blogger is affiliated with the wine Industry.

Having industry ads on the blog makes it more realistic.

It is easy to read the posts in my blog.

Topics on this blog are developed about my favorite wine region.

The blog consistently presents themed information.

I feel like the posts in my blog are written for me.

I think the layout looks clean.

Nobody likes to read technical wine evaluations.

Facts are essential to a believable blog.

I like blogs that are easy to navigate.

It's easy to find what I want to read in my blog.

Links make it easier for me to verify the blog post content.

My blog content is very up to date.

Current blog posts are more believable.

I respect the writer of this blog.

I have a lot in common with my wine blogger.

I trust my wine blogger because he/she/they appear to be sincere.

Industry ads supplement the content in my blog.

Without industry ads, I couldn't trust the content in my blog.

If a wine blog isn't using the latest technology, then it's not for me.

Industry affiliation makes a wine blogger more believable.

I like to laugh when I read the posts in my blog.

This blog consistently discusses singular topics.

This wine blogger would never accept gifts from the wine industry.

When I'm familiar with the information presented in my blog, I find the information more useful.

I feel that the content in my blog adds to community knowledge.

Posts in my blog complement existing industry knowledge.

The site loads without errors.

Having a blog search function makes the blog more appealing.

Long posts are the only posts I read on my blog.

I avoid all short and to the point posts on my blog.

Short posts on my blog are not believable.

It looks like my blogger has a well developed model of presentation.

It looks like my blogger has a well planned business model.

Catchy headlines make the posts more readable.

Catchy headlines add uniqueness to a post.

Advertising makes the blog look more professional.

I trust only posts that I am interested in.

My blog doesn't contain any biased posts.

Biased posts are not believable.

I trust the information in a post when the post seems to be objective.

I think widgets on my blog make it more engaging.

When the post includes all possible aspects of a topic, it is more accurate.

The use of multi-media makes my wine blog appear more believable.

When the post includes all possible aspects of a topic, it is more believable.

I think widgets on my blog make it more professional.

The use of multi-media makes my wine blog appear more objective.

I think widgets on my blog make it more enjoyable.

I love to read humorous wine posts.

Headlines add realism to a blog.

A well written blog is believable.

There is no correct length for a wine post.

Without comments, a blog is not interesting.

Posts on my blog are much better than others.

There is no formula writing on my blog.

Topical headlines help me understand what the blog is about.

Non-wine industry ads on a wine blog make the site seem more believable.

The use of multi-media makes my wine blog appear more relevant.

When I read my favorite wine blog, I smell the aroma of the wine.

The arrangement of items in the blog makes sense to me.

The blog has not been updated since my last visit.

Good blogs use the most advanced platforms.

I like to read ads on my blog.

The more negative the blog post the better.

I judge wine blog information by what is important to me.

Controversial wine posts are entertaining to me.

My blogs wine posts are entertaining.

Wine posts should educate the reader on wine.

The back story on my blog is more useful to me than the reviews.

All information presented in my favorite wine blog is useful to me.

As a reader, I gather information from my blog that is useful to me now.

As a reader, I gather information from my blog that will be useful to me in the future.

My wine bloggers domain name illustrates (personifies) what I always expect from the blog.

Since my blogger consistently presents topics of interest to me, they are more believable.

I don't have to believe a post to read it.

Blog awards posted on the site make it more believable.

I like to be able to immediately identify the blogger.

The comment section lets me know that other people pay attention to the post.

This wine blogger is a creative genius.

This wine blogger seems to have a broad knowledge of wine.

The use of multi-media makes my wine blog appear more useful.

This wine blogger is talked about in other blogs.

This wine blogger is respected by other wine bloggers.

Philosophical wine bloggers are more believable.

Short wine posts are more preferable than long posts.

Wine topics should be continually developed on my blog.

Headlines make me interested.

The blog URL makes it easy to access the site.

I expect this wine blogger to reveal all conflicts of interest.

Error free blogs are more reliable.

Searching for information in a blog makes the blog more interesting.

This wine blogger suggests that I read other wine bloggers views on a topic.

A writer's credentials motivate me to read the blog.

I really enjoy reading my blog.

Blog writers should disclose their backgrounds.

Everyone likes my wine blog writer.

A wine blog writer that has longevity is more believable than one that is new to wine blogging.

Industry affiliated bloggers are not believable.

A technical writer adds believability to the information presented in the blog.

Technical wine credentials are essential to good wine posting.

A good wine blogger has to be experienced.

This wine blogger respects other blogger's opinions.

I like the writing style of my wine blogger.

This wine blogger has a lot in common with me.

The background colors are alluring.

Frequent posts in the archives are an indicator of how serious the wine blog writer is.

Since my wine blog is linked to another blog, I feel it is more believable.

This wine blogger consistently delivers the goods.

I know from the blog URL that it will be trustworthy.

My blog uses the best platform available.

I believe my favorite wine blogger is just like me.

Graphics are used to illustrate the opinions of the writer.

If the information (reviews) sounds reasonable, then it is believable.

I prefer that my favorite blogger shares my viewpoints.

Conclusions agreed upon across other blogs are more credible.

When I read my favorite wine blog, I can taste the flavor of the wine.

Blog posts that present the negative side of an issue/topic are more acceptable.

Conclusions in my blog are more convincing when they are published in sources outside the blogosphere.

A new wine blogger needs to earn respect.

I never question my wine bloggers trustworthiness.

Wine ads on a site make it more believable.

I like wine blog posts to be short, concise, and to the point.

Good content is linked to the original source.

Jumbled layouts are not professional.

Once I establish a relationship with my wine blogger, I never have to question their integrity.

I have never seen the information presented in this blog.

A blog without advertising is not realistic.

Graphics make me feel good.

New information is always presented in this blog.

The information compliments something I find important.

Posts are the only worthwhile feature of a wine blog.

Catchy headlines make it easier to "google" search for what interests me.

An overt (blatant) recommendation is made in the blog.

It is obvious that the blogger is "leading" me to make a decision.

The information is presented in a way that makes it easy for me to put together what I believe is important.

This wine blog writer helps me understand wine.

I feel good when my blogger is mentioned in wine publications.

Comments in a blog post distract my reading.

This wine blogger appears to be honest.

It's good to know that my wine blogger comes highly recommended from other wine bloggers.

This blog consistently talks about a particular wine geography.

This site continually presents a singularly themed set of posts.

When I log on to this site, I think I am in my favorite wine country.

The graphics resemble my favorite wine region.

The blogger knows my favorite wine region.

The blog looks professionally designed.

The blog allows me to search for past content.

I am my wine blog (i.e., I am Nike).

I would not feel uncomfortable telling people that I really like what my blog stands for.

My wine bloggers domain name matches what they stand for.

The layout makes me think the blog is believable.

The blog URL is easy to access.

Industry affiliation makes a wine blogger more professional.

I respect this wine blogger because of their industry affiliation.

Everyone likes to read interesting wine reviews.

Good wine posts express the opinions of the writer.

My blogger seems like a real wine customer.

Good wine blogging requires real passion for the consumption of wine.

I learn new things from this blog.

Facts and opinions on a wine blog should not be clearly delineated.

Well placed graphics make my blog more believable.

This wine blogger respects my comments.

This wine blog writer is more arrogant than helpful.

Wine reviews are boring.

Appendix C

Phase 2 Online Survey Hosted by QuestionPro®

Hello: DO WINE BLOGS MATTER?

In this survey, you will be asked to answer questions about your experiences and participation with your most recently visited wine blog. It is very important for the success of the study to learn your opinions. You will be prompted if you miss a question to go back and answer this question before you continue. Thank you very much for your time and support. CONTINUE by clicking below.

The Auburn University Institutional Review Board has approved this document for use

from (23 April 2009) to (19 Nov 2009)

Protocol # (08-247 EP 0811)

INFORMATION LETTER

for a Research Study entitled

Wine Blogs as a Viable Information Source: Trust Affect and Post Participant Behavior

You are invited to participate in a research study about users perceptions of wine blogs. This study is being conducted by Tracy Rickman, doctoral student in the Auburn University Department of Consumer Affairs, under the supervision of Michael Solomon, Professor of Marketing at Saint Joseph's University. You are selected as a possible

participant because you seem to be interested in wine blogs and you are age 21 or older. If you decide to participate in this research study, you will be asked to answer questions that pertain to your perception about certain aspects of the wine blog that you visited most recently. Your total time commitment will be approximately 10 minutes. There are no known risks or costs to your participation. There are no direct benefits to your participation; however, the information learned in this study should provide general benefits to the wine blogging community.

To thank you for your completed survey, you have the option to be included in a random drawing for a $25 e-certificate. Simply include your e-mail address at the end of the survey. Your e-mail address will not be linked to the survey but put in a separate file. Your e-mail address will be deleted after the random drawing and you will not be contacted in the future.

If you wish to withdraw, simply close your browser without submitting the data. Once you have submitted anonymous data, it cannot be withdrawn due to it being unidentifiable. Any data obtained in connection with this study will remain anonymous. The data you provide will be password protected, accessed only by me, and destroyed after 3 years. Information collected through your participation may be used to fulfill the requirements of my PhD, published in a journal, and/or presented at a professional meeting. Again, no information given will be linked to you.

If you have any questions about this study, contact me, Tracy Rickman, at tracyrickman@ymail.com or rickmta@auburn.edu. If you have any questions or concerns about your rights as a research participant, you can contact the AU IRB at (334) 844-5966 or e-mail at hsubjec@auburn.edu or IRBChair@auburn.edu. Having read the

information above, you must decide if you want to participate in this research project. If you decide to participate, please click "CONTINUE" to access the survey: You may print a copy of this letter to keep.

Thank you very much for your time and support. Please start with the survey now by clicking on the Continue button below.

Here are a few warm up questions to get you used to this survey setting. Select a response that shows your level of disagreement/agreement with these statements. After you complete these questions, you will be guided by prompts that show you how to complete other sections of the survey.

	Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
Currently, I am in a good mood.	❏	❏	❏	❏	❏
I worry a lot when buying wine.	❏	❏	❏	❏	❏
I generally trust others unless they give me a reason not to.	❏	❏	❏	❏	❏
Trusting someone or something is not difficult.	❏	❏	❏	❏	❏
My tendency to trust a person or thing is high.	❏	❏	❏	❏	❏

Section 1

This section deals with some of your general feelings about wine blogs, wine, and wine buying. Please indicate your level of disagreement / agreement with each statement in this section.

	Strongly Disagree	Disagree	Somewhat Disagree	Neither Disagree Nor Agree	Somewhat Agree	Agree	Strongly Agree
Before buying wine, I obtain substantial information about the different varieties that are available.	❏	❏	❏	❏	❏	❏	❏
Participating in wine blogs is one of the most enjoyable activities that I do.	❏	❏	❏	❏	❏	❏	❏
I have a compulsive need to know more about wine.	❏	❏	❏	❏	❏	❏	❏
As I answer these questions, I feel cheerful.	❏	❏	❏	❏	❏	❏	❏
I like wine tastings.	❏	❏	❏	❏	❏	❏	❏
When buying wine, I worry about how good the wine will be.	❏	❏	❏	❏	❏	❏	❏
I am concerned that I may not get my money's worth when buying wine.	❏	❏	❏	❏	❏	❏	❏
My friends and co-workers opinions about my wine buying would cause me concern.	❏	❏	❏	❏	❏	❏	❏
People who are important to me think I should participate in wine blogs.	❏	❏	❏	❏	❏	❏	❏
I like to be around people who participate in wine blogs.	❏	❏	❏	❏	❏	❏	❏
I have a great interest in wine.	❏	❏	❏	❏	❏	❏	❏
I like to engage in conversation about wine.	❏	❏	❏	❏	❏	❏	❏
The thought of buying wine makes me feel uncomfortable.	❏	❏	❏	❏	❏	❏	❏
If I purchased the wrong wine, I would be	❏	❏	❏	❏	❏	❏	❏

concerned what my friends would think about my bad choice.							
I acquire a great deal of information about wine before buying it.	❏	❏	❏	❏	❏	❏	❏
People who influence my behavior encourage me to participate in wine blogs.	❏	❏	❏	❏	❏	❏	❏
Before buying wine, I obtain substantial information about the different brands of wine.	❏	❏	❏	❏	❏	❏	❏
Participating in wine blogs is not very important to me.	❏	❏	❏	❏	❏	❏	❏

Section 2

The questions in this section refer to your interaction with the wine blog that you visited

most recently. Please indicate your level of disagreement / agreement with the statements.

	Strongly Disagree	Disagree	Somewhat Disagree	Neither Disagree Nor Agree	Somewhat Agree	Agree	Strongly Agree
This wine bloggers domain name illustrates what I expect from this blog.	❏	❏	❏	❏	❏	❏	❏
The graphics on this wine blog resemble my favorite wine regions.	❏	❏	❏	❏	❏	❏	❏
This wine blog is easy to navigate.	❏	❏	❏	❏	❏	❏	❏
This wine blog looks professionally designed.	❏	❏	❏	❏	❏	❏	❏
This wine blog uses the most advanced platforms.	❏	❏	❏	❏	❏	❏	❏
This wine blogs URL is easy to access.	❏	❏	❏	❏	❏	❏	❏
I like the layout on this wine blog.	❏	❏	❏	❏	❏	❏	❏
I like the colors used in this wine blog.	❏	❏	❏	❏	❏	❏	❏
Catchy headlines make the posts on this wine blog more believable.	❏	❏	❏	❏	❏	❏	❏

	Strongly Disagree	Disagree	Somewhat Disagree	Neither Disagree Nor Agree	Somewhat Agree	Agree	Strongly Agree
Catchy headlines add uniqueness to the posts on this wine blog.	❏	❏	❏	❏	❏	❏	❏
As a reader, I gather useful information from this wine blog.	❏	❏	❏	❏	❏	❏	❏
New information is always presented in this wine blog.	❏	❏	❏	❏	❏	❏	❏
This wine blogger knows the wine industry.	❏	❏	❏	❏	❏	❏	❏
I think this wine blogger is knowledgeable about wine.	❏	❏	❏	❏	❏	❏	❏
I respect the writer of this blog.	❏	❏	❏	❏	❏	❏	❏
I expect this wine blogger to reveal all conflicts of interest.	❏	❏	❏	❏	❏	❏	❏

Section 2 Continued.

The questions in this section refer to your interaction with the wine blog that you visited most recently. Please indicate your level of disagreement / agreement with the statements.

	Strongly Disagree	Disagree	Somewhat Disagree	Neither Disagree Nor Agree	Somewhat Agree	Agree	Strongly Agree
I never question this wine bloggers trustworthiness.	❏	❏	❏	❏	❏	❏	❏
It does not matter to me if this wine blogger is affiliated with the wine industry.	❏	❏	❏	❏	❏	❏	❏
I have a lot in common with this wine blogger.	❏	❏	❏	❏	❏	❏	❏
This wine blogger is a creative genius.	❏	❏	❏	❏	❏	❏	❏
Everyone likes this wine blog writer.	❏	❏	❏	❏	❏	❏	❏
This wine blogger seems to be experienced with blogging.	❏	❏	❏	❏	❏	❏	❏
There is no correct length for a post on this wine blog.	❏	❏	❏	❏	❏	❏	❏
I like to read unbiased wine reviews on this wine	❏	❏	❏	❏	❏	❏	❏

blog.							
I appreciate this well written wine blog.	❏	❏	❏	❏	❏	❏	❏
I don't have to like a topic on this wine blog to read the post.	❏	❏	❏	❏	❏	❏	❏
The background colors used on this wine blog are alluring.	❏	❏	❏	❏	❏	❏	❏
Industry ads supplement the content on this wine blog.	❏	❏	❏	❏	❏	❏	❏
This wine blog consistently talks about a particular wine geography.	❏	❏	❏	❏	❏	❏	❏
This wine blog consistently presents a singularly themed set of posts.	❏	❏	❏	❏	❏	❏	❏
Typos make me think this wine blog is not professional.	❏	❏	❏	❏	❏	❏	❏
The search function on this wine blog makes this wine blog more appealing.	❏	❏	❏	❏	❏	❏	❏
The use of multi-media makes this wine blog more useful.	❏	❏	❏	❏	❏	❏	❏

Section 2 Continued

YOU ARE HALFWAY DONE! (Time Bar Represents Pages Completed)The questions

in this section refer to your interaction with the wine blog that you visited most recently.

Please indicate your level of disagreement / agreement with the statements.

	Strongly Disagree	Disagree	Somewhat Disagree	Neither Disagree Nor Agree	Somewhat Agree	Agree	Strongly Agree
As I answer these questions, I feel very cheerful.	❏	❏	❏	❏	❏	❏	❏
Posts on this wine blog are much better than posts on other wine blogs.	❏	❏	❏	❏	❏	❏	❏

I like this wine blog to be continually updated.	❏	❏	❏	❏	❏	❏	❏
This wine blog allows me to search for past content.	❏	❏	❏	❏	❏	❏	❏
Headlines used in this wine blog make it believable.	❏	❏	❏	❏	❏	❏	❏
I like the entertaining content on this wine blog.	❏	❏	❏	❏	❏	❏	❏
Well written posts on this wine blog enable the writer to better express his/her opinion.	❏	❏	❏	❏	❏	❏	❏
I am grateful for the quality content on this wine blog.	❏	❏	❏	❏	❏	❏	❏
This wine blogger seems to have a broad knowledge of wine.	❏	❏	❏	❏	❏	❏	❏
I trust this wine blogger because he/she appears to be sincere.	❏	❏	❏	❏	❏	❏	❏
This wine blog writer discloses his/her background.	❏	❏	❏	❏	❏	❏	❏
This wine blogger respects my comments.	❏	❏	❏	❏	❏	❏	❏
I appreciate the effort this wine blog writer puts into his/her posts.	❏	❏	❏	❏	❏	❏	❏
I admire this wine blogger.	❏	❏	❏	❏	❏	❏	❏
Well placed graphics make this blog more believable.	❏	❏	❏	❏	❏	❏	❏
When I navigate this wine blog, it loads without errors.	❏	❏	❏	❏	❏	❏	❏

Section 2 Continued

The questions in this section refer to your interaction with the wine blog that you visited

most recently. Please indicate your level of disagreement / agreement with the statements.

	Strongly Disagree	Disagree	Somewhat Disagree	Neither Disagree Nor Agree	Somewhat Agree	Agree	Strongly Agree
For some reason, I am not comfortable right now.	❏	❏	❏	❏	❏	❏	❏

I believe this wine bloggers post even if it is highly opinionated.	❏	❏	❏	❏	❏	❏	❏
If this wine blogger is not objective, I will not read the post.	❏	❏	❏	❏	❏	❏	❏
When I read this wine blog, I can taste the flavor of wine.	❏	❏	❏	❏	❏	❏	❏
I am this wine blog (i.e., I am Nike).	❏	❏	❏	❏	❏	❏	❏
Comments posted on this wine blog make the blog more interesting.	❏	❏	❏	❏	❏	❏	❏
I prefer that this wine blogger shares my viewpoints.	❏	❏	❏	❏	❏	❏	❏
At this moment, I feel edgy or irritable.	❏	❏	❏	❏	❏	❏	❏
I trust only the posts on this wine blog that I am interested in.	❏	❏	❏	❏	❏	❏	❏
I judge wine blog information on this wine blog by what is important to me.	❏	❏	❏	❏	❏	❏	❏
The information in this wine blog is presented in a way that makes it easy for me to find what I believe is important.	❏	❏	❏	❏	❏	❏	❏
This wine blogger is respected by other wine bloggers.	❏	❏	❏	❏	❏	❏	❏
Once I established a relationship with this wine blogger, I never questioned his/her integrity.	❏	❏	❏	❏	❏	❏	❏
Since this wine blog is linked to other wine blogs, I feel it is more believable.	❏	❏	❏	❏	❏	❏	❏
This wine blogger is talked about affectionately in other blogs.	❏	❏	❏	❏	❏	❏	❏
This wine blogger would never accept gifts from the wine industry.	❏	❏	❏	❏	❏	❏	❏
When a unique wine topic is posted on this wine blog, it interests me	❏	❏	❏	❏	❏	❏	❏

Section 3

Please give your overall feelings or impressions toward using the wine blog that you visited most recently. You will be asked to respond to 3 sets of adjectives.

Please give your overall feelings or impressions about using the wine blog that you visited most recently. The closer you click toward an adjective the more you believe this adjective describes your overall feelings or impressions about using this wine blog.

	Bad	2	3	4	5	6	Good
	❏	❏	❏	❏	❏	❏	❏

Please give your overall feelings or impressions about using the wine blog that you visited most recently. The closer you click toward an adjective the more you believe this adjective describes your overall feelings or impressions about using this wine blog.

	Unfavorable	2	3	4	5	6	Favorable
	❏	❏	❏	❏	❏	❏	❏

Please give your overall feelings or impressions about using the wine blog that you visited most recently. The closer you click toward an adjective the more you believe this adjective describes your overall feelings or impressions about using this wine blog.

	Unpleasant	2	3	4	5	6	Pleasant
	❏	❏	❏	❏	❏	❏	❏

Section 4

This section deals with the use of advice or information garnered from the wine blog that you visited most recently. Please indicate your level of disagreement / agreement with each statement in this section.

	Strongly Disagree	Disagree	Somewhat Disagree	Neither Disagree Nor Agree	Somewhat Agree	Agree	Strongly Agree
I would feel comfortable acting upon the information given to me by this wine blog.	❏	❏	❏	❏	❏	❏	❏
I would say positive things about this wine blog to other people.	❏	❏	❏	❏	❏	❏	❏
I will return frequently to make comments in this wine blog.	❏	❏	❏	❏	❏	❏	❏
I can rely on this wine blog.	❏	❏	❏	❏	❏	❏	❏
I will return frequently to read this wine blog.	❏	❏	❏	❏	❏	❏	❏
I would not hesitate to purchase wine-related products recommended on this wine blog.	❏	❏	❏	❏	❏	❏	❏
I would follow wine recommendations from this wine blog.	❏	❏	❏	❏	❏	❏	❏
I have confidence in the accuracy of the information on this wine blog.	❏	❏	❏	❏	❏	❏	❏
I would recommend this wine blog to someone who seeks my advice about wine.	❏	❏	❏	❏	❏	❏	❏
I have no loyalty to this wine blog.	❏	❏	❏	❏	❏	❏	❏
I feel that there are no benefits with participating in this wine blog.	❏	❏	❏	❏	❏	❏	❏
I will continue to participate in this wine blog because I feel it would be a hardship to find an alternative blog.	❏	❏	❏	❏	❏	❏	❏

I would encourage friends and relatives to seek wine-related information from this wine blog.	❏	❏	❏	❏	❏	❏	❏
I would make a wine related purchase based on the advice I am given on this wine blog.	❏	❏	❏	❏	❏	❏	❏
This wine blogger is only concerned with promoting his or her interests.	❏	❏	❏	❏	❏	❏	❏

Section 5

Stay with us! Last Section and Almost Finished. 11 questions to go! These questions will

enable us to clarify and classify your answers to the previous questions. Choose only one

answer.

How long have you participated in wine blogs (writing and/or reading)?
1. Less than one (1) year
2. One (1) to Two (2) years
3. Three(3)to Four(4)Years
4. Five (5) years or more

How much time on average per day do you participate (writing and/or reading) in wine blogs.
1. Less than a hour
2. Two to three hours
3. More than three hours

Do you have your own wine blog?
1. Yes
2. No

What is your gender?
1. Male
2. Female
3. Prefer not to answer

Click on a category that best represents your age.
1. Under 25 years of age
2. 26-35 years of age
3. 36-45 years of age
4. Over 45 years of age
5. Prefer not to answer

What is your current yearly household income before taxes?
1. Less than $50,000
2. $50,000 -$99,999
3. More than $100,000
4. Prefer not to answer

What is the highest level of education you have attained?
1. High School or equivalent
2. Some College
3. Bachelors degree
4. Graduate Degree
5. Prefer not to answer

Are you affiliated in any way with the wine industry?
1. Yes
2. No
3. Prefer not to answer

How would you categorize the geographic region where you reside?
1. East US
2. Midwest US
3. West US
4. Southern US
5. Canadian
6. European
7. Australian
8. Other _____

Section 6

This question is optional but a response is highly desired. It will not be used for the

evaluation of any specific blog, but rather to examine the diversity of blogs in the

analysis.

THE FOLLOWING REQUESTED INFORMATION IS COMPLETELY OPTIONAL.

Please fill in the name of the wine blog or the URL of the wine blog that was used to

respond to the questions in this survey. Your response will not be connected to you in

any way. It will not be used for the evaluation of any specific blog, but rather to examine

the diversity of blogs in the analysis.

Section 7

The Random e-certificate Drawing Here is where I ask you if you would like to

participate in the drawing for the e-gift certificates. If you do not want to participate,

click continue at the end of the next question.

THE FOLLOWING REQUESTED INFORMATION IS COMPLETELY OPTIONAL.

ANSWER THIS QUESTION -ONLY- IF YOU WANT TO BE ENTERED INTO THE

RANDOM DRAWING FOR THE E-CERTIFICATES. If you would like to be entered

into this random drawing for one of ten possible ($25) E-certificates, please enter your

current zip code and email address (separate by a comma) For example (35467,

cool@aol.com). We need this information for your entry into the random drawing for the

E-gift certificates. YOUR PRIVACY: By submitting your e-mail address, you are

entitled to hold us to our Privacy Covenant that states that we will not sell or rent or give

away e-mail addresses collected in this survey without your written permission. In

addition, the email address that you provide will not be coded in any manner and

therefore will not be linked to your survey responses.

Appendix D

Initial Purified Scale of Hypothesized Credibility Structure

Variable Dimension	Variable Item	Variable Name
	Site Dimensions [STE CRED]	
Visual Design	This wine blog looks professionally designed	sd1
	The background colors used on this wine blog are alluring	sd2
	Headlines used in this wine blog make it believable	sd3
Functionality	This wine blog is easy to navigate	sf1
	The use of multimedia makes this wine blog more useful	sf2
	This wine blog allows me to search for past content	sf3
Initial Appearance	I like the layout on this wine blog	sa1

| | I like the colors used in this wine blog | sa2 |

Message Dimensions [MSG CRED]

Content	As a reader I gather useful information from this wine blog	mc1
	I don't have to like a topic on this wine blog to read the post	mc2
	I like this wine blog to be continually updated	mc3
Style	Catchy headlines make the posts on this wine blog more believable	ms1
	Catchy headlines add uniqueness to the posts on this wine blog	ms2
	I appreciate this well written wine blog	ms3
Liking	I like the entertaining content on this wine blog	ml1
	I like to read unbiased wine reviews on this wine blog	ml2
	Comments posted on this wine blog make the blog more interesting	ml3

Source (Writer) Dimensions [SRC CRED]

Expertise	This wine blogger knows the wine industry	we1

	I think this wine blogger is knowledgeable about wine	we2
	This wine blogger seems to have a broad knowledge of wine	we3
Trustworthiness	I respect the writer of this blog	wt1
	I expect this wine blogger to reveal all conflicts of interest	wt2
	This wine blog writer discloses his/her background	wt3
	This wine blogger respects my comments	wt4
	Once I established a relationship with this wine blogger I never questioned his/her integrity	wt5
Appeal	I have a lot in common with this wine blogger	wa1
	This wine blogger is a creative genius	wa2
	Everyone likes this wine blog writer	wa3
	I appreciate the effort this wine blog writer puts into his/her posts	wa4
	I admire this wine blogger	wa5