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**THE FACILITATING ROLE OF REVIEW RATINGS ON ONLINE
CONSUMER REVIEW PROCESSING: THE MODERATING ROLE
OF SUSCEPTIBILITY TO INTERPERSONAL INFLUENCE AND
PERCEIVED RISK**

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PERCEIVED RISK**

by

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Dissertation

Presented to the Faculty of the Graduate School of

The University of Texas at Austin

in Partial Fulfillment

of the Requirements

for the Degree of

Doctor of Philosophy

The University of Texas at Austin

August 2012

Dedication

To my family

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The University of Texas at Austin, 2012

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Online consumer reviews have become popular sources for acquiring product-related information. However, an excessive number of reviews create eWOM overload, thus a system that can efficiently sort helpful reviews, so prospective customers can make informed decision more easily, is an obvious solution. Numeric cues, such as summary ratings, are perceived to be valuable, but consumers' evaluation of the review and the reviewed product has been understudied. In fact, it is unclear how consumers process numeric cues as parts of online product information. Therefore, this study investigated the potential of numeric review cues, particularly summary ratings, to determine how consumers process numeric reviews in relation to their evaluation of review quality and in relation to their decision-making process.

The main premise of this study is that consumers systematically process product information online via peer consumer reviews, and consumers' dependency on reviews depends on their susceptibility to interpersonal influence and the perceived risk inherent in the product purchase. Two experiments were conducted to test this premise, and the

experiments found that the degree of consumers' susceptibility to interpersonal influence which acted as a moderator of the valence of summary rating effects has a significant impact on consumers' evaluations of online consumer reviews and the reviewed product. In addition, the findings highlighted the significant role peer consumers' summary ratings can play in product purchase decisions. Moreover, the study identified the role susceptibility to interpersonal influence had in an online shopping environment.

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Chapter 1: Introduction

Referred to as an exchange of product information among consumers in marketing and advertising fields (Engel, Blackwell, & Kegerreis, 1969; Grewal, Cline, & Davies, 2003; Katz & Lazarsfeld, 1955; Rogers, 1995), word-of-mouth (WOM) is an important component of marketing communications as consumers share a great deal of product-related information through WOM communication (Sundaram, Mitra, & Webster, 1998). The rapid growth of the Internet has enabled consumers to easily communicate and share information with peer consumers in large-scale online communities without the restrictions of time and location, revolutionizing the traditional concept of WOM (Dellarocas, 2003). This transformed WOM phenomenon is widely referred to as electronic WOM (eWOM) (Lee, Park, & Han, 2008).

The online consumer review is one of the most widely accepted and easily accessible forms of eWOM in which consumers can share both positive and negative product information (Park & Lee, 2008). Online consumer reviews spread fast and are easily accessible. These reviews have become a major source of product- or brand-related information (Hu, Liu, & Zhang, 2008). Consumers find reviews useful as they provide valuable information to peer consumers through vicarious product experiences (Park, Lee, & Han, 2007). Consumers seek quality reviews when they are purchasing products, and these reviews affect consumers' purchase-related decision-making processes (Zhu & Zhang, 2009). A recent industrial report found that more than 43.8% of online consumers access reviews to evaluate product alternatives and learn more about the quality of the products they consider purchasing (comScore, 2012).

Based on the increased empirical evidence that consumer reviews are important factors that affect product sales (Ba & Pavlou, 2002; Chevalier & Mayzlin, 2006;

Clemons, Gao, & Hitt, 2006), many online retail sites have begun offering consumer reviews as a new marketing tool (Dellarocas 2003), and sites that offer helpful reviews to consumers are considered useful (Mudambi & Schuff, 2010). For online retailers, a successful marketing strategy includes having quality consumer reviews that motivate consumers to visit their websites (Mudambi & Schuff, 2010) and induce consumers to proactively provide product information online (Godes & Mayzlin, 2004).

During the decision-making process, consumers like to obtain useful product information and recommendations from various information sources, and peer consumers' online reviews can serve this purpose and influence consumers' purchase decisions by reducing the uncertainty of product purchases (Deutsch & Gerard, 1955; Park et al., 2007). Consumers often make purchase decisions without complete information about the quality of a product or seller and without understanding the available product alternatives (Mudambi & Schuff, 2010), so online consumer reviews offer other consumers' experiences and information, allowing them to avoid uncertainty about a product or seller with which they are unfamiliar (Chevalier & Mayzlin, 2006). When consumers engage in an online product purchase, they seek out details about the product to minimize the possible risks associated with product purchases and maximize the value of product usage.

Although reviews are considered valuable assets to consumers looking to purchase quality products as consumer reviews have become a more important part of the purchasing process, they have also become more widespread, sometimes resulting in an overwhelming number of product reviews on a retailer's site. As a result of these ever-increasing reviews, consumers have access to richer product information than ever before (Lurie, 2004; Malhotra, 1984). However, an excessive number of reviews, conflicting information, and long content make it difficult for consumers to process product

information, leading to eWOM overload (Park & Lee, 2008). Consumers have a limited capacity for processing information, and if they attempt to process too much information in a limited time, cognitive confusion, strain, and dysfunctional consequences may occur (Malhotra, 1984), affecting their decision-making process (Park & Lee, 2008) due to information search fatigue (Zhu & Zhang, 2009). In an effort to process information effectively, consumers have requested that marketers present an optimal amount of information—enough to adequately inform consumers but not too much to overwhelm them—offering consumers greater selectivity in the information they process. Eventually, consumers and marketers will need more strategic review systems (Mudambi & Schuff, 2010).

Due to the need for an efficient method for selecting online reviews, consumers may increasingly rely on numeric cues, such as summary ratings, reviewer credibility ratings, the number of consumers who have read a review, and the number of people who found the review helpful. Consumers use these numeric cues to efficiently sort through reviews that appear helpful and to gather information about product alternatives, which can allow them to make informed decisions more easily (Dabholkar, 2006; Mudambi & Schuff, 2010; Poston & Speier, 2005). When searching for quality product reviews, consumers can conserve their cognitive resources for processing information through the use of numeric cues, which improves their purchase decision process (Mudambi & Schuff, 2010; Poston & Speier, 2005). Because consumers selectively process online reviews based on numeric cues, these cues provide an efficient form for information processing.

Previous studies have found a positive relationship between numeric review cues, the growth of product sales (Clemons, Gao, & Hitt, 2006), and the positive influence review cues have on the perceived quality of reviews and sales (Chen, Dhanasobhan, &

Smith, 2008). Specifically, Jiang and Benbasat (2007) found that consumers who visit ratings websites process information more easily, and this website information positively affects consumers' attitudes toward online shopping. Moreover, Mudambi and Schuff (2010) found that clear summary ratings positively influence the way in which consumers perceive review quality and helpfulness.

However, to date, only a few studies have focused on numeric cues' impact on consumers' evaluations of product reviews, and there is limited research on how consumers systematically process product information online. Given the potential of numeric review cues, one area in need of further examination is how consumers process numeric review cues in relation to their evaluation of review quality and their decision-making process. Another critical aspect of review cue processing is consumers' susceptibility to interpersonal influence. Past studies on eWOM suggest that consumers with certain personal factors such as personality trait and susceptibility to interpersonal influence display different patterns of eWOM communication and a different level of reliance on product-focused information (Bearden, Netemeyer, & Teel, 1989; Chu, 2009).

Therefore, the objective of this study is to provide an in-depth understanding of consumers' evaluation of online consumer reviews based on numeric review cues, and the focal dimension reviews consumers' behavioral responses to the interpersonal influence of online product reviews. Through two experimental studies, this research first explores the act of consumers' susceptibility to the interpersonal influence on numeric review cues. Then, to extend the findings from the first study, the second study employs the situational factor, perceived risk, as another focal dimension of the research because consumers' dependency on peer consumer reviews varies based on their level of the perceived risk in purchase decisions (Cox, 1967).

The findings provide an important theoretical contribution to contemporary literature by building a theoretical framework for understanding how numeric review cues affect product information processing among consumers. Specifically, through the application of personal and situational factors, this study offers a conceptualization of the contribution that review attitudes have in the multistage process of consumer decision-making. In addition, from a managerial standpoint, the findings of this study increase online retailers' understanding of the role of online reviews, which play a part in the multistage process of consumers' purchase decisions and can be used to develop guidelines for creating more valuable online review systems for consumers.

In order to accomplish these research objectives, a comprehensive review of the related literature was conducted, a theoretical foundation for the hypotheses was developed, and experimental research to test the hypotheses was designed. After the data were analyzed, the last section discusses the overarching theoretical and managerial implications of the research and outlines the limitations and directions of future study.

Chapter 2: Literature Review

ELECTRONIC WORD OF MOUTH

Defined as an exchange of marketing information among consumers (Engel, Blackwell, & Kegerreis, 1969; Grewal, Cline, & Davies, 2003; Katz & Lazarsfeld, 1955; Rogers, 1995), word-of-mouth (WOM) communication has been considered as one of the most valuable resources for consumers. WOM communication is important because it includes the sharing of all forms of consumer information, such as consumer's characteristics; product, service, or vendor usage; and attitudes toward products. Moreover, it offers an effective and reliable metric for measuring consumers' attitudinal and behavioral loyalty (Bass, 1969; Biyalogorsky, Gerstner, & Libai, 2001; Brown & Reingen, 1987).

Many studies have found that WOM communication can significantly affect consumers' attitudes on a wide range of products and services (Engel *et al.*, 1969; Grewal *et al.*, 2003; Katz & Lazarsfeld 1955; Rogers, 1995), particularly in innovations and automobiles (Shavitt, Swan, Lowery, & Wanke, 1994; Weinberger, Allen, & Dillon, 1981). WOM is considered to be powerful because, as a form of interpersonal source, it generally provides more credibility compared to non-personal or commercial sources (Feick & Price, 1987). Consequently, consumers depend on WOM significantly when they seek product information for a purchase decision (Goldsmith & Clark, 2008).

With the advent of the Internet, WOM has evolved into electronic word-of-mouth (eWOM), whereby consumers share experiences and opinions about products or services via various types of electronic communication channels (Lee *et al.*, 2008; Park & Kim, 2008), such as emails, personal blogs (*e.g.*, Blogger) and homepages, instant messaging, newsgroups, chat rooms, online brand communities, product review sites (*e.g.*, Epinions.com), and social network sites (*e.g.*, Facebook) (Goldsmith, 2006; Goldsmith &

Horowitz, 2006; Vilpponen, Winter, & Sundqvist, 2006). The interactive nature of the Internet allows consumers to seek or provide product or service information to peer consumers more easily. In turn, peer consumers' opinions, as communicated by eWOM, affect the consumer decision-making process (Goldsmith & Horowitz, 2006; Schlosser, 2005). In addition, online information transmission enables consumers to access an unlimited amount of information about a variety of products and services (Negroponte & Maes, 1996). Consumers can compare prices and qualities of products and services and they have opportunities to communicate with peer consumers and marketers (Negroponte & Maes, 1996). Consumers also utilize the Internet to exchange valuable information about products and services and to share their experiences with peer consumers the same way that they do offline (Goldsmith & Horowitz, 2006). For example, online consumer discussion forums, such as Epinions.com, provide a virtual avenue for consumers to write opinions about products and services (Cheung *et al.*, 2009). On the other hand, the electronic entertainment guide, Citysearch, encourages consumers to leave ratings for restaurants, bars, and shops for peer consumers (Rosenberg, 1961). These and similar other sites have resulted in a new wave of eWOM (Evans, Wedande, Ralston, & Hul, 2001).

Although the eWOM phenomenon has been driven by traditional WOM communication, eWOM differs in several ways (Cheung *et al.*, 2009). First, the network size of eWOM is larger compared to the network size of the traditional WOM. Moreover, eWOM occurs in various forms—such as blogs, review sites, and emails—where consumers can exchange information either publicly (*e.g.*, blogs and review sites) or privately (*e.g.*, emails) (Chu, 2009). In addition, more contributors and audiences are involved in the exchange of information in eWOM compared to traditional WOM and the frequency and reach of such exchanges go beyond personal connections because they are

open to the whole Internet realm (Cheung *et al.*, 2009). Second, eWOM is free from the restrictions of time and location. The Internet enables global access among consumers and allows consumers to reach larger and more diverse audiences simultaneously (Hennig-Thurau, Gwinner, Walsh, & Gremler, 2004). In addition, asynchronous access to eWOM communication allows consumers to read content at their own pace (Hoffman & Novak, 1997), giving them more control over their eWOM behavior as compared to traditional WOM (Daugherty, Eastin, & Bright, 2008; Riegner, 2007). Third, while information exchange via traditional WOM is extremely difficult to observe directly (Godes & Mayzlin, 2004), eWOM offers convenience for measuring information exchange among consumers (Park & Kim, 2008). In addition, given the anonymous nature of the Internet (Goldsmith & Horowitz, 2006), the coexistence of both identifiable and unidentifiable sources of product or service information is easily observable (Flanagin & Metzger, 2007; Johnson & Kaye, 1998). Thus, almost limitless information is available via eWOM and consumers can selectively read and compare information that they are interested in. This easy accessibility makes eWOM attractive to consumers. As a result, it has become a favorite source of consumer advice (Cheung *et al.*, 2009).

Due to the importance and popularity of eWOM, numerous studies have actively examined the factors that influence the effectiveness of eWOM communication on consumer behavior (Park & Kim, 2008). In this regard, studies have explored the motives for eWOM communication as well as the consumers' responses to eWOM messages (*e.g.*, Hennig-Thurau *et al.*, 2004), eWOM's effect on product sales (*e.g.*, Chevalier & Mayzlin, 2006; Godes & Mayzlin, 2004), consumers' email pass-along behavior driven by eWOM responses (*e.g.*, Phelps, Lewis, Mobilio, Perry, & Raman, 2004), and the effect of eWOM on online survey procedures (*e.g.*, Norman & Russell, 2006) and online consumer communities (*e.g.*, Hung & Li, 2007). More specifically, Dellarocas (2003)

explored the nature of online feedback mechanisms, such as the one on eBay, and found that such an online medium is an important eWOM communication channel for both consumers and marketers in terms of building consumer trust and corporate credibility in online communities. The study results also indicated that prevalent eWOM communication within online communities has generated valuable implications for consumer-brand relations, product development, and brand building (Dellarocas, 2003). Due to the convenience of establishing consumer-brand relations as well as exchanging product information and developing an e-commerce environment, online communities have become good venues for eWOM communication for both consumers and marketers (Hagel & Armstrong, 1997). One widely studied area of eWOM and its impact on consumer behavior is online consumer reviews.

Online Consumer Review as a Form of eWOM Communication

Online consumer reviews are defined as “peer-generated product evaluations posted on company or third party websites” (Mudambi & Schuff, 2010, p.186). The reviews include both positive and negative statements about the products or services made and delivered by potential, actual, or former consumers (Stauss, 2000).

While WOM has been a considerable focus of marketing literature, it has only been recently that online consumer reviews have become a focus of marketing and information systems studies (Hu *et al.*, 2008). Like traditional WOM, online consumer reviews are important for driving the actions of consumers (Lee *et al.*, 2008). However, unlike traditional WOM communications, both positive and negative statements are simultaneously available from various sources on the same online venue for online consumer review (Chatterjee, 2001). Another distinctive characteristic of online consumer review is measurability. Because online consumer reviews are presented in

written form rather than in spoken form, the quantity and quality of reviews are easily observed and measured online (Lee *et al.*, 2008).

The importance of online consumer reviews comes from its impact on the readers' attitudes toward a product or service. Specifically, online consumer reviews can shape the peer consumers' perceptions and attitudes toward a product, thereby facilitating consumers' purchase intent and behavior. Consequently, reviews may eventually affect product sales (Cheung *et al.*, 2009); therefore, the importance of online consumer reviews lies in their ability to influence consumer activities subsequent to product purchase (Cheung *et al.*, 2009).

Several studies, as summarized in Table 1, show that online consumer reviews can significantly influence product sales. For instance, Chevalier and Mayzlin (2006) examined the effect of online consumer reviews on book sales at Amazon.com and Barnesandnoble.com and found that online consumer reviews significantly influenced book sales at the sites. Similarly, Godes and Mayzlin (2004) found a positive relationship between online consumer reviews and TV show viewership. Likewise, Liu (2006) found that online movie reviews significantly influenced both aggregate and weekly box office revenues. These study results suggest that many consumers make purchase decisions based on online consumer reviews.

Similarly, other studies have revealed how online product reviews can affect the consumers' decision-making process. For example, Senecal and Nantel (2004) found that consumers who consulted peer consumers' recommendations selected the recommended products twice as often as did subjects who did not consult any recommendations. This indicates the power of online consumer reviews. Furthermore, Huang and Chen (2006) analyzed the relation between sales volume and consumer reviews on consumers' product choices and examined the relevant effectiveness of recommendation sources between

experts and consumers. Study results indicated that consumers use other people's evaluations as facilitating cues for making their own product choices and purchase decisions. Additionally, the recommendations of peer consumers influence the choices of subjects more effectively compared to the recommendations from experts (Huang & Chen, 2006). Clemons, Gao, and Hitt (2006) discussed the role of online consumer reviews on the evaluation of the effectiveness of product differentiation. According to the study results, as consumers become more informed about a product through peer reviews, highly differentiated products become more desirable to consumers (Clemons *et al.*, 2006).

An underlying mechanism behind such study results is that online consumer reviews can significantly influence the process by which peer consumers make purchases. During the purchase process, consumers like to have valuable product information and recommendations from various information sources. Online consumer reviews influence the consumers' decision-making process either as an informant or as a recommender (Deutsch & Gerard, 1955; Park *et al.*, 2007). As an informant, online consumer reviews are considered to provide product information similar to seller-provided information, but with some consumer-oriented evaluations (Lee *et al.*, 2008). The informant online consumer reviews describe product attributes in terms of specific usage situations and evaluate product performance from a user's perspective (Bickart & Schindler, 2001) rather than simply providing seller-provided product attributes, such as technical specifications, and product performance results in relation to technical standards. As a recommender, online consumer reviews offer recommendations about a product or service in a manner similar to traditional WOM communication (Chatterjee, 2001), providing either positive or negative direct evaluations about a product (Bickart & Schindler, 2001; Rosen & Olshavsky, 1987). However, due to several distinctive

characteristics, such as measurability, various sources, bigger volume, and reachability (Chatterjee, 2001), there is a far greater abundance of online consumer reviews than traditional reviews in the offline world (Lee *et al.*, 2008). Online consumer reviews can, therefore, more completely meet consumers' information needs (Park & Lee, 2008). They can also help reduce uncertainty about a product (Bickart & Schindler, 2001; Rosen & Olshavsky, 1987).

Author(s)	Data Sources	Key Findings
Basuroy, Chatterjee, & Ravid (2003)	200 films released between late 1991 and early 1993 from <i>Baseline Services</i> in California and <i>Variety</i> magazine	<ul style="list-style-type: none"> Both positive and negative reviews are correlated with weekly box office revenues over an eight-week period. However, the impact of negative reviews (but not that of positive reviews) diminishes over time. Negative reviews hurt more than positive reviews help box office performance, but only in the first week of a film's run.
Chatterjee (2001)	Survey	<ul style="list-style-type: none"> WOM information offers significant explanatory power for both aggregate and weekly box office revenue, especially in the early weeks after opening. However, as measured by the percentages of positive and negative messages, most of this explanatory power comes from the volume of WOM, not its valence.
Chen, Fay, & Wang (2003)	Consumer reviews from <i>Epinions.com</i> , <i>Consumer Reports</i> , and <i>J.D. Power & Associates</i>	<ul style="list-style-type: none"> Controlling for price and quality, number of online postings is positively related to automobile sales.
Chen, Wu, & Yoon (2004)	Review and sales data from <i>Amazon.com</i>	<ul style="list-style-type: none"> More recommendations are associated with higher sales, while consumer ratings are not found to be related to sales.
Chevalier & Mayzlin (2006)	Book characteristics and user review data collected from the public web sites of <i>Amazon.com</i> and <i>BarnesandNoble.com</i>	<ul style="list-style-type: none"> Reviews are overwhelmingly positive at both sites. An improvement in a book's reviews leads to an increase in relative sales at that site. The impact of 1-star reviews is greater than the impact of 5-star reviews.
Clemons, Gao, & Hitt (2006)	Sales data from the craft beer industry and review data from <i>Ratebeer.com</i>	<ul style="list-style-type: none"> The variance of ratings and the strength of the most positive quartile of reviews play a significant role in determining which new products grow fastest in the marketplace.
Dellarocas, Awad, & Zhang (2004)	User reviews posted on <i>Yahoo! Movies</i> website	<ul style="list-style-type: none"> A newly-derived revenue forecasting model that incorporates the impact of both publicity and word of mouth on a movie's revenue trajectory predicts the movie's total revenues accurately.
Duan, Gu, & Whinston (2005)	<i>Variety.com</i> , <i>Yahoo! Movies</i> website, and <i>Box-Office Movies</i> website	<ul style="list-style-type: none"> Box office sales are significantly influenced by the number of online postings. Ratings of online user reviews have no significant impact on box office sales.
Eliashberg & Shugan (1997)	Box office sales data from <i>Baseline, Inc.</i> and <i>Entertainment Data Incorporated (EDI)</i>	<ul style="list-style-type: none"> Critical reviews correlate with late and cumulative box office receipts but do not have a significant correlation with early box office receipts.
Godes & Mayzlin (2004)	Viewership data from Nielsen ratings and conversation observed in <i>Usenet</i> newsgroup	<ul style="list-style-type: none"> The dispersion of conversations about weekly TV shows across Internet communities is positively correlated with the evolution of viewership for these shows.
Hu, Pavlou, & Zhang (2006)	A field study and data collected from <i>Amazon.com</i>	<ul style="list-style-type: none"> The most satisfied and the most disgruntled consumers are the most likely to post reviews. Therefore, the average rating may not be a fair evaluation of the product.
Liu (2006)	<i>Yahoo! Movies</i> website	<ul style="list-style-type: none"> WOM information offers significant explanatory power for both aggregate and weekly box office revenue, especially in the early weeks after opening. However, as measured by the percentages of positive and negative messages, most of this explanatory power comes from the volume of WOM, not its valence.

Source modified from: Hu, Liu, & Zhang, 2008, p.5-6

Table 2.1. Previous Empirical Research Related to Online Consumer Review

Uncertainty Reduction Role of Online Consumer Review

Due to the proliferation of online review systems, online consumer reviews can influence consumers' attitudinal and behavioral decisions (Zhu & Zhang, 2009), primarily because of their uncertainty reduction function. When consumers make purchase decisions, they often process product information with incomplete information because they lack full information about a product and seller quality as well as the availability of alternatives (Mudambi & Schuff, 2010). Therefore, via peer consumers' vicarious experiences and information, consumers can avoid uncertainty about a product or seller with which they are unfamiliar (Chevalier & Mayzlin, 2006). However, consumers also know that seeking product information to reduce uncertainty is costly and time consuming and that there are tradeoffs between the perceived costs and benefits of additional searching (Stigler, 1961).

The theory of Transaction Cost Economics (TCE) provides a close connection between product information and uncertainty reduction (Williamson, 1979). According to TCE, information quality is an important factor in consumer decision-making when using online consumer reviews. Quality information reduces purchase uncertainty. When consumers make purchase decisions online, they must go through a transaction process, which starts with searching for relevant products. Once the consumer decides upon the relevant products, the transaction process is followed by comparing prices, evaluating product quality, ordering the selected product, delivering and using the product, and participating in post-purchase services. Throughout this transaction process, consumers will face uncertainties because product descriptions offered by the sellers may not provide enough information. At times, product quality is evaluated after using the product. Generally, uncertainty refers to the cost-related, unexpected outcomes associated with information asymmetry. In this process, a higher level of uncertainty engenders a

higher level of transaction cost, which results in a lower level of sales volume (Williamson, 1979). In other words, reduced uncertainty can decrease transaction costs and consumers will select a brand with the lowest transaction cost out of all the products that meet their requirements for purchase. Therefore, the ultimate goal of online shopping for consumers is to classify the intrinsic nature of a product based on all possible quality information and to make the purchase decision with the lowest transaction cost and uncertainty about the product.

As an example of uncertainty reduction process, a consumer may or may not have prior information about a product and prior experience with online vendors of the product. In that case, the consumer's product purchase process involves uncertainties associated with the product quality and the online vendors. In accordance with the Uncertainty Reduction Theory (Berger & Calabrese, 1975), if consumers believe they are lacking information about a product or the outcomes of using the product, they will engage in an uncertainty reduction process to minimize possible risks associated with using the product and to maximize the outcome value of utilizing it. During this uncertainty reduction process, consumers drill down to seek details about the product via online consumer reviews written by other experienced peer consumers. These reviews are often helpful to both new and prospective consumers for purchase decision making as they provide either indirect product experience or allow product quality to be inferred, reflecting the product's intrinsic value.

Electronic Word of Mouth Overload

As mentioned previously, online consumer reviews can affect product sales (Ba & Pavlou, 2002; Chen, Dhanasobhon, & Smith, 2001). They provide valuable information to consumers through vicarious product experience, reducing consumers' uncertainty

about a product with which they are unfamiliar. Therefore, for online retailers, a successful marketing strategy includes having quality consumer reviews (Godes & Mayzlin, 2004). Websites that offer useful reviews to consumers are considered valuable and credible places to shop. From the consumers' perspective, on the other hand, online consumer reviews are considered an important element of their decision-making process. As consumer reviews become a more important part of the purchasing process, they also become more widespread, sometimes resulting in an overwhelming number of product reviews on a retailer's site. Consequently, consumers face richer product information than ever before (Lurie, 2004).

The downside to having an overwhelming number of product reviews is that the product information received by consumers from peer consumers' online reviews is oftentimes not necessarily consistent. At times, they can be conflicting in terms of product evaluation. They may also be too long to process. The availability of too much information can cause information overload to consumers (Malhotra, 1984).

Online consumer reviews are often generated by consumers' usage experience. They provide user-oriented information, describing a product's performance from a user's perspective (Bickart & Schindler, 2001). As each individual has different usage experiences and opinions about product performance, online consumer reviews can vary greatly across users (Park & Lee, 2008). The absence of any standard format for writing reviews can result in various review formats and content, leading to online consumer review overload (Park & Lee, 2008). For example, since reviewers can freely express their evaluation of products, they can write their reviews in any format they like. As a consequence, some reviews can be subjective and emotional (*e.g.*, "I hate this product.", "This is not worth the money") while others can be objective and rational, providing attribute-value information (*e.g.*, "This product is bigger and cheaper than its

competitors”). The inconsistent formatting of reviews can also lead to information overload.

Although it has only been recently that the Internet has dramatically altered the manner by which consumers shop and search for information, the subject on information overload has been studied for more than 40 years. Traditional research found that the increasing amounts of available information (as measured by the number of alternatives and attributes) could negatively affect the quality of consumer choices (Jacoby *et al.*, 1974; Malhotra, 1982). Recently, for more precise measures of the amount of information, researchers have adopted a structural approach for measuring information quantity, such as distribution of attribute levels (Lee & Lee, 2002; Lurie, 2002). Increasingly, consumers search for product information and compare alternatives using various websites. The rich and interactive nature of the Internet is likely to increase consumer satisfaction and confidence. It can also reduce uncertainty when shopping. However, too much information can overwhelm consumers and can cause adverse judgmental decision-making (Park & Lee, 2008). Consumers have a limited capacity for processing information and if they attempt to process too much information in a limited time, this can result to cognitive confusion, strain, and dysfunctional consequences (Malhotra, 1984). An excessive number of reviews, conflicting information, and long content make it difficult for consumers to process product information, leading to what is called eWOM overload (Park & Lee, 2008).

As the availability of consumer reviews becomes more widespread, information search fatigue may result, leading to reviews becoming less informative (Zhu & Zhang, 2009). eWOM overload occurs when available information exceeds the consumers’ capacity to process it, eventually leading to negative feelings and a decrease in the perceived informativeness of the review information set (Park & Lee, 2008). Previous

studies concerning the decreasing informativeness of reviews have shown that the consumers' perceived informativeness suffers when there is too much information available to process (e.g., Jacoby, Speller, & Berning, 1974; Jacoby, Speller, & Kohn, 1974). Therefore, to process information effectively and more readily, consumers are requesting that marketers present an optimal amount of information—enough to adequately inform consumers, but not enough to overwhelm them—allowing consumers to be more selective of the information they process (Mudambi & Schuff, 2010). Subsequently, a more strategic use of the review systems is required for both consumers and marketers (Mudambi & Schuff, 2010). Consumers want to process information in a fun and exciting way without cognitive fatigue, so that they can enjoy their online shopping. As consumers become more selective about the information they process, a system called “numeric cues” is used for reviewers. This system includes summary ratings, reviewer credibility ratings, the number of consumers who read the review, and the number of people who found the review to be helpful.

Review Ratings

Online review systems are easy to use and anyone can be a reviewer. Reviewers spend time and effort to create reviews that are helpful for both consumers and online retailers (Ghose & Ipeiritis, 2010). A large number of reviews for a single product may become overwhelming, making it difficult for consumers to summarize the product discussions and evaluations regarding the quality of a product (Ghose & Ipeiritis, 2010); thus, to achieve beneficial information sharing in an online community and to enhance consumer trust in online reviews, an effective mechanism for gauging information is essential (Chen *et al.*, 2001). To this end, the numerical rating system has become popular among online retailers for not only providing product ratings, but also for

increasing message credibility and reviewer trust with consumers (Chen *et al.*, 2001). For example, Amazon.com allows its consumers to vote on the helpfulness of reviews. The proportions of votes serve as an indicator of review quality for peer consumers who process the reviews. Moreover, Amazon.com employs a ranking system along with helpfulness of votes, where reviewers who receive a higher number of helpful votes are identified and singled out to peer consumers (Chen *et al.*, 2001).

Consumers use these numeric cues to easily gather information about a product and its alternatives and to make a better decision more easily (Dabholkar, 2006; Mudambi & Schuff, 2010; Poston & Speier, 2005). When searching for quality product reviews, these cues allow them to conserve their cognitive resources for processing information and to reduce their energy expenditure. Subsequently, they are able to increase the ease of their purchase decision process (Poston & Speier, 2005). Consumers selectively process online reviews based on these cues. These cues facilitate a concise form of information processing for consumers.

Most review forums, such as the aforementioned Amazon.com case, allow consumers to mark reviews as “helpful” to reveal their informativeness. However, according to Ghose and Ipeiritis (2010), the helpful vote has limitations as they may reflect short- or medium-term time-framed product. Moreover, they are often accumulated over a long period of time. Fortunately, review forums also utilize other numeric cues, such as summary ratings (usually represented by stars) and reviewer credibility ratings. Of these numeric cues, however, the summary rating is the one that online retailers utilize most often. This is also the cue believed to be more credible by consumers (Cheung *et al.*, 2009; Poston & Speier, 2005).

The summary rating refers to the overall product rating given by other online consumers (Cheung *et al.*, 2009). It is typically represented by star ratings, which usually

range from one to five stars (Mudambi & Schuff, 2010). Reviewers who are writing the review can give either a high or low rating based on their own evaluation of the product (Cheung *et al.*, 2009). Usually, a one-star (a low rating) evaluation reflects a negative perception of the product while a five star (a high rating) indicates a positive view of the product. Three stars (a moderate rating) reflect a moderate view of the product (Mudambi & Schuff, 2010). The summary ratings are a reflection of the consumers' attitude extremity (either positive or negative), which is the deviation from the midpoint of an attitude scale (Krosnick, Boninger, Chuang, Berent, & Camot, 1993). As summary ratings reflect the consumers' attitudes, aggregate summary ratings represent how previous consumers who had bought and used the product reacted to the reviews (Cheung *et al.*, 2009). Many online retailers allow consumers to post product reviews using summary ratings and open-ended comments about products (Mudambi & Schuff, 2010). Those summary ratings can facilitate product information processing for consumers.

Numerous studies have investigated the relationship between summary ratings and consumers' perceived credibility on a given product information, often finding a positive association between them (*e.g.*, Eysenbach, 2000; Eysenbach, Yihune, Lampe, Cross, & Brickley, 2000; Mudambi & Schuff, 2010; Price & Hersh, 1999). Studies also discovered a positive relationship between summary ratings and growth of product sales (*e.g.*, Clemons, Gao, & Hitt, 2006). In addition, they showed that summary ratings have a positive influence on the perceived quality of reviews and sales (*e.g.*, Chen, Dhanasobhan, & Smith, 2008). For example, Chevalier and Mayzlin (2006) demonstrated that the summary ratings and subsequent sales of books on retailer sites were positively related and that consumers processed review content in addition to summary ratings. Clemons *et al.* (2006) examined how summary ratings were used to evaluate the effectiveness of product differentiation and demonstrated that summary ratings play a

significant role in determining product differentiation, especially for products that are new to the marketplace. In addition, the relationship between summary ratings for movies and the revenue-forecasting model was tested and it was found that summary ratings significantly improved the model's predictive power (Dellarocas, Awad, & Zhang, 2007). More recently, Mudambi and Schuff (2010) demonstrated the effect of summary ratings and review quality on consumers' perceived helpfulness of reviews. Online retailer sites that provide rating systems for easier product information processing have emerged, even for specialized areas, such as travel (www.travelpost.com) and charities (www.charitynavigator.org). All these empirically support the belief that consumers utilize the rating system for easier product information processing and that summary ratings affect consumers' online shopping attitudes (Jiang & Benbasat, 2007) while facilitating the purchase decision process (Mudambi & Schuff, 2010; Poston & Speier, 2005).

Chapter 3: Theoretical Background and Hypotheses Development

Based on previous literature regarding the impact of summary ratings on consumers' product information processing and online shopping attitudes, this study employs the idea of consumer susceptibility to interpersonal influence as a critical aspect of consumers' review cue processing. Findings across several domains of eWOM suggest that consumers with certain personal characteristics display different patterns of eWOM communication and different levels of reliance on product-focused information (Bearden, Netemeyer, & Teel, 1989; Chu, 2009). Therefore, the following section seeks to address consumer susceptibility to the interpersonal influence identified in past literature for the proposed framework of consumers' product information processing and online shopping attitudes.

CONSUMER SUSCEPTIBILITY TO INTERPERSONAL INFLUENCE

Originating from McGuire's (1968) early review of the relationship between susceptibility and individual characteristics and personalities, susceptibility to interpersonal influence is defined as:

The need to identify with or enhance one's image in the opinion of significant others through the acquisition and use of products and brands, the willingness to conform to the expectations of others regarding purchase decisions, and/or the tendency to learn about products and services by observing others or seeking information from others (Bearden, Netemeyer, & Teel, 1989, p. 473).

The susceptibility to interpersonal influence is an important variable that affects individuals' decision-making processes in different ways (Cohen & Golden, 1972; Kassarian & Robertson, 1981; Moscovici, 1985; Sherif, 1935). Early studies on

susceptibility to interpersonal influence concluded that a person's individual traits and relative influenceability tend to be positively related to his or her influenceability in other social situations (McGuire, 1968). That is, individuals who have a tendency to conform to one source of influence will likely conform to other sources of influence (Bearden, Netemeyer, & Teel, 1989).

While most studies about interpersonal influence have investigated individuals' tendencies regarding conforming to group norms or modifying judgments based on other evaluations, few studies have dealt with the susceptibility to interpersonal influence (Bearden, Netemeyer, & Teel, 1989). Deutsch and Gerard (1955) proposed two manifested forms of influence in the interpersonal influence context: normative and informational.

Normative influence can be defined as the tendency to conform to the expectations of others and is known to affect individuals' attitudes, group norms, and values (Burnkrant & Cousineau, 1975). Normative influence can be accomplished through the process of identification, which occurs when an individual accepts the opinion of others or adopts a behavior derived from others, or the process of compliance, which occurs when an individual conforms to the expectations of others (Kelman, 1961). With regard to the identification process, if individuals are motivated to enhance self-concepts relative to the groups in which they belong (e.g., society, a community, or another type of group), they accept the influence of group either by associating themselves with positive referents or dissociating themselves from negative referents. Individuals identify themselves by accepting behaviors and opinions they believe to be representative of their positive reference groups or adopting behaviors and opinions that they perceive to be the opposite of their negative reference groups.

Individuals adopt the behaviors and opinions of positive reference groups to enhance or support their self-concept and to be rewarded, which is inherent in this enhancement or support. Therefore, if individuals are motivated to be rewarded or if they seek to avoid punishment, they may be more likely to conform to the influence of others. However, this compliance process only occurs when individuals expect that their performance and behaviors will be visible to those others. Therefore, if individuals are in a product evaluation situation where their evaluations are visible to others who are the perceived mediators of significant rewards or punishments, they are more likely to conform to the evaluations of those others in order to be rewarded or avoid punishment (Kelman, 1961).

Informational influence is defined as the tendency to accept information from knowledgeable others (Deutsch & Gerard, 1955). Informational influence can be accomplished through an internalization process, which occurs when individuals accept influence because of the perceived value maximization (Kelman, 1961). Individuals are more likely to accept an informational social influence if the influence is perceived to be instrumental in the solution of problems that individuals confront or if the influence adds some value that is believed to be salient to the current environment. Thus, individuals internalize informational influence when they perceived it will enhance their knowledge about the current environment or their personal ability to cope with some aspect of their environment (Kelman, 1961). In general, while all consumers show some susceptibility to interpersonal influence, they vary in the degree of their susceptibility (Chu, 2009).

Interpersonal Influence in an Online Consumer Review Context

The susceptibility to interpersonal influence is an important in individuals' decision-making processes (Cohen & Golden, 1972; Kassarian & Robertson, 1981;

Moscovici, 1985; Sherif, 1935), and when it is applied in an online consumer review context, interpersonal influence plays a significant role in determining consumers' engagement in eWOM. Previous studies on interpersonal communication and WOM behavior suggest that consumers' personal factors and personality traits are likely to affect their WOM dissemination behavior toward fellow consumers (Feick & Price, 1987; Gilly, Graham, Wolfinbarger, & Yale, 1998; Lazarsfeld, Berelson, & Gaudet, 1944). For example, interdependent individuals are more sensitive to WOM influence as they focus more on the importance of the social context than on individual independence (Briley, Morris, & Simonson, 2000). Similarly, Bearden, Netemeyer, and Teel (1989) found that when consumers are highly susceptible to interpersonal influence, WOM serves as a powerful source of information for them; therefore, consumer susceptibility to interpersonal influence significantly affects consumer purchase decisions.

Consumers with different levels of susceptibility to interpersonal influence may display different eWOM communication patterns on online retailer sites as interpersonal influence plays a significant role in consumer decision making (Bearden, Netemeyer, & Teel, 1989; D'Rozario & Choudhury, 2000; Park & Lessig, 1977). For instance, consumers highly susceptible to interpersonal influence are more likely to be swayed by peer consumers' recommendations or evaluations than those who have a low susceptibility to interpersonal influence, and such tendencies may be reflected in consumers' product information processing and online shopping attitudes. Therefore, interpersonal influence is associated with consumers' reliance on peer consumers' product reviews and evaluations as important factors influencing product purchases. Several studies have explored the impact of consumer susceptibility to interpersonal influence on consumers' purchasing behaviors (Bearden, Netemeyer, & Teel, 1989; D'Rozario & Choudhury, 2000).

To further understand the impact of interpersonal influence in a consumer decision-making context, conformity should be addressed. Conformity is defined as the tendency of opinions to establish a group norm and individuals' tendency to comply with the group norm (Burnkrant & Consineau, 1975). Conformity has been employed in the consumer research domain (Ford & Ellis, 1980; Moschis, 1976; Stafford, 1966).

In consumer research, conformity involves changes in consumer product evaluation, purchase intent, or purchase behavior that are caused by exposure to peer consumers' product evaluations or purchase behaviors (Lascu & Zinkhan, 1999). Consumers follow peer consumers' opinions as a result of overt conformity pressures from their peer groups. Conformity typically occurs because consumers have concerns about what their peers may think of them (Bearden & Rose, 1990) or because other consumers in their peer group provide reliable product information (Cohen & Golden, 1972). Therefore, consumers' decision making on the basis of peer consumers' choices is an example of conformity (Lee et al., 2008).

As mentioned previously, conformity is closely related to an individual's susceptibility to interpersonal influence (Bearden, Netemeyer, & Teel, 1989; Goldsmith, d'Hauteville, & Flynn, 1998) as the pressure to conform to others' behavior comes from the influence of interpersonal information (Lee et al., 2008). Interpersonal influence is particularly important to consumers when they accept interpersonal information as evidence of the true quality of a product or service (Cohen & Golden, 1972; Lascu, Willian, & Rose, 1995) or during the evaluation of new products due to diffusion of information (Rogers, 1995). As such, the interpersonal nature of information in online consumer reviews can influence peer consumers' attitudes and behaviors (Lee et al., 2008). When consumers accept information from peer consumers, studies indicate there

are two types of influence processes that occur: informational and normative (Bearden, Netemeyer, & Teel, 1989; Deutsch & Gerard, 1955).

Informational influence occurs when consumers accept information from others as evidence of reality (e.g., evidence regarding product quality based on peer consumers' evaluations of a product) that enables them to make informed decisions (Deutsch & Gerard, 1955). Normative influence occurs when consumers try to conform to the expectations of others. A body of studies regarding social influence on consumer behavior suggests that normative pressure is operationalized in group or public settings as individuals tend to conform to group expectations or opinions (Cohen & Golden, 1972; Kassarian & Robertson, 1981; Moscovici, 1985; Venkatesan, 1966).

Through normative and informational influence, online consumer reviews affect consumers' perceptions of products and their behavioral intentions. For instance, consumers who are highly susceptible to informational influence value the informational aspect of online consumer reviews, and consumers who are highly susceptible to normative influence focus on the process of conforming to other consumers' opinions (Laroche, Kalamas, & Cleveland, 2005).

Therefore, it is assumed that consumers who tend to be susceptible to informational influence show a greater need to acquire valuable product information from other knowledgeable consumers that will guide them in making a quality purchase. In this process, consumers try to collect all the available information to generate the most informed decision. If summary ratings are presented, consumers susceptible to informational influence find these ratings to be a valuable source of product information.

Likewise, consumers who tend to be susceptible to normative influence are more likely to conform to group expectations. For those consumers, online consumer reviews deliver peer consumers' normative beliefs and values about a product by indicating

whether they like or dislike the product (Park & Lee, 2008). In accordance with summary ratings, normative influence can occur in two different ways based on the appeal of ratings. When summary ratings on consumer reviews are positive overall, potential consumers who process the product information are likely to consider the product desirable, conforming to the opinions of peer consumers from an online retailer site. On the contrary, when potential consumers face overall negative summary ratings in consumer reviews, they may dislike or reject a product because disagreeing with peer consumers causes psychological discomfort. Therefore, summary ratings lead potential consumers, especially those who are highly susceptible to interpersonal influence, to rationalize their brand preference and purchase decisions because they are in line with consumers who have already purchased the product. Similarly, consumers are less likely to purchase products with overall negative summary ratings.

Moreover, interpersonal influence can also affect perceptions of a review's informativeness and helpfulness and can pass-along behavior. The perceived informativeness and helpfulness of reviews are commonly used measures that assist consumers in evaluating peer consumers' online reviews (Mudambi & Schuff 2010; Park & Lee, 2008). These measures reflect the diagnostic values of peer consumer reviews (Mudambi & Schuff 2010) as consumers find the reviews to be consistent with peer consumers' views of the product. Likewise, regarding conformity to the socially desirable expectations of others' opinions (Zhu & He, 2002), if positive reviews about a product are prominent, consumers follow the positive reviews even though they understand that there are also negative reviews (Park & Lee, 2008). From this vantage point, consumers who are highly susceptible to interpersonal influence will evaluate review content based more on summary ratings, either positive or negative, to conform to others' opinions than consumers who have a low susceptibility to interpersonal influence.

In addition, consumer evaluations of review content will also affect their pass-along behavior. Pass-along is the unique behavioral component of exchanging product-focused information in an online context, which facilitates information dissemination (Norman & Russell, 2006). The most common motivation for pass-along behavior is the desire to share information and connect with others (Phelps, Lewis, Mobilio, Perry, & Roman, 2004). Given the above theoretical perspectives, the following hypotheses have been derived:

H1a: When a summary rating is positive, consumers who are highly susceptible to interpersonal influence will evaluate the review (and the reviewed product) more positively than consumers who have a low susceptibility to interpersonal influence.

H1b: When a summary rating is negative, consumers who are highly susceptible to interpersonal influence will evaluate the review (and the reviewed product) more negatively than consumers who have a low susceptibility to interpersonal influence.

THE ROLE OF PERCEIVED RISK IN CONSUMERS' ATTITUDINAL AND BEHAVIORAL RESPONSES

Another factor that can affect the evaluation of online consumer reviews is the perceived risk of the product purchase. Perceived risk is defined as “the nature and amount of risk perceived by a consumer in contemplating a particular purchase decision” (Cox & Rich, 1964, p. 33), and it is usually identified by feelings of uncertainty associated with the negative consequences of product or service use (Featherman & Pavlou, 2003).

For several decades, the concept of perceived risk has received attention in both practice and academia (Bauer, 1960; Cox, 1967; Farquhar, 1994; Grewal, Gotlieb, & Marmorstein, 1994). In relation to consumer behavior research, perceived risk has been applied in many behavioral study areas, such as intercultural comparisons (Alden, Stayman, & Hoyer, 1994), dental, baking services (Coleman, Warren, & Huston, 1994; Ho & Victor, 1994), and catalog shopping (Jasper & Ouellette, 1994).

According to Mitchell (1999), there are several reasons that practitioners and researchers have become more interested in the concept of perceived risk. First, the theory of perceived risk has intuitive appeal and can help marketers facilitate consumers' worldview. Second, the concept of perceived risk can be applied to almost every product and service, and its usability has been demonstrated across various products. Third, perceived risk is a very powerful concept in terms of explaining consumer behavior as consumers' motivation to avoid purchase mistakes is stronger than their motivation to maximize the utility of their purchase. Fourth, marketers can use risk analysis for the allocation of resources, brand-image development, consumer targeting, and product positioning in the market. Finally, understanding risks can also create new product strategies and ideas.

Consumers' perceived risk in purchase situations is a function of two components: consumers' level of uncertainty and the importance of the buying goal (Cunningham, 1967). When consumers are in risk-involved purchase situations, they try to reduce the risk using alternative strategies (Bauer, 1960; Cox, 1967). While acknowledging that decision heuristics, such as brand loyalty, buying the most popular brand, or buying an advertised brand, would be helpful strategies in such situations, the most desirable uncertainty-reducing strategy involves diverse product choices about which consumers can obtain information from various sources (Lutz & Reilly, 1974).

Fundamental product cues, such as product price or brand image, can be a form of product information, but deeper, more diverse product information can be found through searching in the environment, a process known as overt searching (Howard & Sheth, 1969) or information acquisition (Hansen, 1972). When consumers are actively engaged in product information searches, the reduction of purchase uncertainty is obtained through the integration of product information into consumers' cognitive structure, which leads to the reduction of perceived risk (Lutz & Reilly, 1974). Therefore, consumers are engaged in information searching before purchasing a product or service to reduce the perceived risk associated with the purchase decision. As Cox (1967) stated, consumers in purchase situations with some amount of perceived risk have information needs and dictate their needs to peer consumers.

Therefore, when consumers are engaged in online purchase situations, they are reluctant to complete a purchase transaction (Hoffman, Novak, & Peralta, 1999) when there are higher levels of risk concerns and uncertainty about a product (Jarvenpaa & Tractinsky, 1999; Pavlou, 2001). When shopping in person, there is an opportunity to personally inspect a product, compare various brands, check sizes and styles, and obtain help from knowledgeable salespeople (Cox & Rich, 1964). Often, these direct experience opportunities for gathering product information to reduce product uncertainty are not available for online shopping. Therefore, the potential uncertainty presented in online shopping creates higher levels of perceived risk, and the risk becomes a prominent barrier to consumer product purchasing. However, when consumers are involved in risky purchase situations, they try to reduce risk by searching for information on the possible consequences of product purchases and the past experiences of others (Cox & Rich, 1964; Lutz & Reilly, 1974). The degree of perceived risk in online purchase situations

determines consumers' dependence on online consumer reviews that are generated by other experienced consumers.

Interestingly, the types of perceived risk in purchase situations vary depending on the consumers' level of uncertainty and the importance of the buying goal (Cunningham, 1967). Many scholars have identified different facets of perceived risk that underlie decision-making components (Bellman, Lohse, & Johnson, 1999; Cunningham, 1967; Jacoby & Kaplan, 1972). An early categorization includes two components: performance and psychosocial. The performance component is broken into three types of perceived risk (economic, temporal, and effort) while the psychosocial component is comprised of two types of risk (psychological and social) (Cunningham, 1967). Those two components, performance and psychosocial, are further typified through six dimensions of perceived risk: performance, financial, opportunity/time, safety, social, and psychological loss (Cunningham, 1967). To those six dimensions, Jacoby and Kaplan (1972) added one more dimension: an overall measure of perceived risk. Bellman et al. (1999) emphasized the importance of time considerations and found a significant relationship between time risk and online shopping behavior.

Throughout the development and revision process, seven dimensions of perceived risk have been identified, and Table 2 provides a description for each dimension. Based on the different types of perceived risk in a purchase situation, consumers' particular needs for product information vary, and consumers may select informational sources that will reduce the level of uncertainty that exists in their particular situation (Lutz et al., 1974).

Perceived Risk Facet	Description – Definition
Performance risk	The possibility of the product malfunctioning and not performing as it was designed and advertised and therefore failing to deliver the desired benefits.
Financial risk	The potential monetary outlay associated with the initial purchase price as well as the subsequent maintenance cost of the product. The current financial services research context expands this facet to include the recurring potential for financial loss due to fraud.
Time risk	Consumers may lose time when making a bad purchasing decision by wasting time researching and making the purchase, learning how to use a product or service only to have to replace it if it does not perform to expectations.
Psychological risk	The risk that the selection or performance of the producer will have a negative effect on the consumer's peace of mind or self-perception. Potential loss of self-esteem (ego loss) from the frustration of not achieving a buying goal.
Social risk	Potential loss of status in one's social group as a result of adopting a product or service, looking foolish or untrendy.
Privacy risk	Potential loss of control over personal information, such as when information about you is used without your knowledge or permission. The extreme case is where a consumer is "spoofed" meaning a criminal uses their identity to perform fraudulent transactions.
Overall risk	A general measure of perceived risk when all criteria are evaluated together

Source: Featherman & Pavlou, 2003, p.45

Table 3.1. Description and Definition of Perceived Risk Facets

Of these dimensions, social risk is highly involved in consumers' tendencies to seek peer consumers' opinions about a product (Perry & Hamm, 1969; Roselius, 1971). Social risk refers to the potential loss of social status in a group due to making poor choices, such as adopting untrendy products or services. When perceived social risk is high in a purchase situation, consumers' needs for social reassurance increase, so they rely more on personal sources, such as peer consumers' evaluations, rather than impersonal sources such as basic product information provided by manufacture (Featherman & Pavlou, 2003).

Purchase decisions are not only determined by perceived risk (Cox & Rich, 1964). Other key determinants of the decision-making process, such as consumer characteristics,

should also be considered for a deeper understanding of consumer behavior. For instance, when there is potential uncertainty in an online shopping environment, the perceived risk is more problematic for consumers who have less risk capital because they have more to lose from a poor choice than consumers who have more risk capital (Hoyer & MacInnis, 2007). Based on this view, from a social risk perspective, consumers are more careful about making decisions when others can see what they choose, and consumers may be embarrassed if they make a wrong choice that may harm their social standing in a group to which they belong (Bettman & Park, 1980; Brucks, 1985; Urbany et al., 1989). Consumer susceptibility to interpersonal influence becomes a significant determinant of purchase decisions when it is associated with social risk. For example, a consumer who is highly susceptible to interpersonal influence might worry about purchasing uncool products that other people do not like because they care about others' opinions more than consumers who are not highly susceptible to interpersonal influence. Therefore, when high social risk persists in purchase situations, consumers who are highly susceptible to interpersonal influence assume more socially acceptable, popular opinions than consumers who have low susceptibility to interpersonal influence. In accordance with the summary ratings of online consumer reviews and the role that summary ratings' play in representing peer consumers' evaluations of a product, potential consumers who are susceptible to interpersonal influence will evaluate and purchase a product based on the extremity of the summary ratings (whether the ratings are extremely positive or negative) when they are in a high social risk purchase situation. Based on these findings of the perceived risk approach, the following hypothesis was formulated:

H2: The interaction effect of consumer susceptibility to interpersonal influence and the influence of summary rating on consumer responses to the product review

(and the reviewed product) will be stronger when consumers are in a high social risk purchase situation than when they are in a low social risk purchase situation.

Chapter 4: Method

To test the hypotheses proposed in the previous chapter, this dissertation employed two experimental studies. Study 1 investigated the extent to which one's susceptibility to interpersonal influence acted as a moderator of the valence of summary ratings effects. To replicate and extend the results of Study 1, Study 2 examined whether perceived risk could affect the evaluation of online consumer reviews in relation to consumer susceptibility to interpersonal influence. A different product category and vignette were employed, and fabricated online purchase scenarios were used to prime participants' levels of perceived social risk.

STUDY I: CONSUMER SUSCEPTIBILITY TO INTERPERSONAL INFLUENCE AND REVIEW CUE PROCESSING

Study Design

This study employed a 2 (consumer susceptibility to interpersonal influence: high versus low) \times 2 (summary rating valence: positive versus negative) between-subjects design. Consumer-generated online reviews with either positive or negative summary ratings were manipulated, and consumer susceptibility to interpersonal influence was measured and dichotomized. In manipulating the online consumer reviews, a fictitious brand was used and a stimulus vignette that included general features of the product, both positive and negative, was invented. After creating a neutral, two-sided consumer review, positive and negative summary ratings were added to the neutral content. Participants' self-rated product knowledge, eWOM familiarity, and prior online purchase experience were controlled for in this study.

Stimulus Development

Product Selection.

The stimulus product in the experiment was determined based on Mizerski's criteria (1982) that the product should be purchased and used by participants and that it should also be one that participants would be interested in seeking others' opinions about. According to relevant literature (e.g., Herr, Kardes, & Kim, 1991; Laczniak, DeCarlo, & Ramaswami, 2001), electronic products such as computers, phones, cameras, and MP3 players have been widely used in online consumer review studies as stimulus products. Those products typically have a large number of online consumer reviews and comments from previous users because of their complicated functions. Consumers often think that the seller-provided information is not sufficient for making purchase decisions for those products so they seek out consumer-generated product information before purchasing (Park & Kim, 2008; Park, Lee, & Han, 2007). Based on these criteria, a brand-new smartphone was created to be the product of interest for this study.

A fictitious brand name "Alpha" was used to avoid any possible confounding effects that can be caused due to brand familiarity and brand preferences. In addition the brand name should be neutral and should not cause participants to automatically gravitate toward "positive" or "negative" feelings. Therefore, before the main experiment, a pretest was conducted to check brand-name neutrality so that participants process the suggested information with no stereotypes regarding the valence of brand name.

With a panel of 78 participants who were similar to the participants for the main experiment in demographics, a two, seven-point semantic differential scale (i.e., "negative/positive," "unfavorable/favorable") was used to test the neutrality of the brand name ($\alpha = .90$). It was tested by one-sample *t*-test with a testing value of 4, with the result

showing statistical insignificance on the brand name gravitation ($M = 4.01$, $SD = 1.32$; $t = .086$, $df = 77$, $p > .05$).

Vignettes.

Two vignettes were generated for this study – one with a positive summary rating and one with a negative summary rating. Both vignettes contained neutral, two-sided content. The online consumer review content was created prior to adding summary ratings, and then, positive and negative summary ratings were added to the neutral consumer review content. To select externally valid product aspects when consumers purchase a smartphone, actual online consumer review sites, Cnet.com and Amazon.com, were accessed and the content was analyzed. After 152 reviews were carefully examined, functionality and appearance were chosen as the most frequently mentioned aspects of smartphones posted on online review sites. Then, messages from these real consumer reviews were selected and tweaked for the experiment.

To employ the most appropriate review for the main experiment, three different formats of reviews were generated, including pros and cons of the smartphone; pros, cons, and short statement of summary about the smartphone; and pros, cons, and long statement of summary about the smartphone. The neutrality of the content was also tested by a two, seven-point semantic differential scale (i.e., “negative/positive,” “unfavorable/favorable”) (all $\alpha s > .92$). A series of one-sample t -tests was conducted and the content that includes pros, cons, and short statement about the smartphone was selected for the main experiment ($M = 3.88$, $SD = 1.28$, $N = 29$; $t = .51$, $df = 28$, $p > .05$) (see Table 4.1).

	N	M	SD	t-value	p-value
Pros and Cons	29	3.72	1.11	1.33	.19
Pros, Cons, and Short Statement	29	3.88	1.28	.51	.62
Pros, Cons, and Long Statement	28	4.43	.89	2.55	.02

Table 4.1. One-Sample *t*-test Results for Three Formats of Reviews

Building on this, the stimulus online consumer review starts with a summary rating, reviewer identification and review created date, and review content including pros, cons, and summary statement about the smartphone. All of these elements were equalized across both vignettes except the summary rating (see Appendix A).

In manipulating the summary ratings, star rating was employed. Star-rating scales are used extensively on such online review sites as Amazon.com, Cnet.com, Expedia.com, and Urbanspoon.com, allowing consumers to rate the quality of a variety of goods and services (Schoenfeld, 2010). They reflect consumers' attitudes and how consumers who bought and used the products have reacted to the reviews (Cheung *et al.*, 2009). One star, which reflects a negative perception of the product (Mudambi & Schuff, 2010), was added to the content for the negative summary rating condition, and four and half stars, which indicate a positive view of the product (Mudambi & Schuff, 2010), was added to the positive summary rating manipulation.

Conformity should also be considered when manipulating summary ratings. Regarding interpersonal influence, it is known that people tend to adjust their behavior or thinking to coincide with a group standard and choice. Research suggests that group size is an important factor influencing conformity (Sternthal, Tybout, & Calder, 1994) because the same choices made by a large number of people reduce the perceived risk of regret and uncertainty (Lee *et al.*, 2008). Existing studies indicate that the larger the group size, the greater the normative pressure (Campbell & Fairey, 1989). Consequently,

the number of reviews offering the same opinion can affect the level of conformity (Park & Lee, 2008). In that regard, this study portrayed a number of consumer agreements, “out of 704 reviews,” on both the positive and negative summary ratings.

Participants

Participants were recruited from the Amazon Mechanical Turk. The Amazon MTurk is open online marketplace for getting survey done by others, which consists of over 100,000 panel members over 100 countries and boasts a large, diverse workforce (Buhrmester, Kwang, & Gosling, 2011). To date, academic research has long been relying on college samples which might cause sampling errors. Collecting data via the Internet can reduce the traditional sampling biases (Gosling, Vazire, Srivastava, & John, 2004), and MTurk member, although far from perfect, are very diverse and representative of non-college populations (Buhrmester *et al.*, 2011).

A total of 150 the panel members (female 51.3%) participated in this study in exchange for 40 cents of monetary compensation. Those participants were the first 150 members who completed this study. Participants ranged in age from 18 to 77 with a mean age of 38.73 (SD = 12.334). The majority of the participants were Caucasians (84%, N = 126), followed by African Americans (8%, N = 12). The remainder of the sample consisted of Asian (4%, N = 6), Hispanics (3.3%, N = 5), and Native Americans (0.7%, N = 1). More than half the participants had at least some post-secondary education, and about half of them either lived with someone or were married at the time of survey completion (see Table 4.2).

Demographic Characteristics	Frequency	Percentage
<i>Gender</i>		
Male	73	48.7
Female	77	51.3
<i>Ethnicity</i>		
Caucasian	126	84
African-American	12	8
Asian	6	4
Hispanic	5	3.3
Native American	1	.7
<i>Education</i>		
High school or equivalent	13	8.7
Vocation/technical school (2 years)	4	2.7
Some college	52	34.7
College graduate (4 years)	57	38
Master's degree	18	12
Doctoral degree	5	3.3
Professional degree (MD, JD, etc.)	1	.7
<i>Marital Status</i>		
Single	61	40.7
Married	54	36
Divorced	13	8.7
Living with someone	19	12.7
Separated	1	.7
Widowed	2	1.3
<i>Household Income</i>		
Under \$10,000	12	8
\$10,000 to \$19,999	12	8
\$20,000 to \$29,999	23	15.3
\$30,000 to \$39,999	19	12.7
\$40,000 to \$49,999	25	16.7
\$50,000 to \$74,999	28	18.7
\$75,000 to \$99,999	10	6.7
Over \$100,000	19	12.7
Other	2	1.3

Table 4.2. Sample Characteristics of Study 1

Procedure

The experiment was administered online. After creating the study site, study requests were posted on Amazon MTurk. Usually, the panel members of MTurk can browse available studies and are paid upon successful completion of each study. Once they click on this experimental study, they were directed to the study site.

When logging onto the study site, participants were given study information and instructions. A screening question, whether participants have experience in reading online consumer reviews, was used to ensure participants' experience of reading online consumer reviews. After the screening question, all qualified participants were led to the consent form. Once they agreed to take part, the participants were randomly assigned to one of the two experimental conditions. Each of the participants was led to a stimulus vignette corresponding to the manipulation, then they were asked to fill out the questionnaire containing dependent measures, susceptibility to interpersonal influence measures, manipulation checks, covariates, and demographic questions. Upon completing the study, they were debriefed by a summary statement and dismissed. Within a week period, participants who completed the study successfully received payments, 40 cents.

Measures

Consumer Susceptibility to Interpersonal Influence.

Susceptibility to interpersonal influence was assessed via modifying Bearden, Netemeyer, and Teel's (1989) scale, which measures consumer susceptibility to interpersonal influence using two dimensions, normative and informational. These dimensions reflect former scales measuring tendency to conform to expectations of others through the purchase process (Burnkrant & Cousineau, 1975) and the tendency to adopt valuable information from knowledgeable others (Deutsch & Gerard, 1955).

Normative influence was measured using an eight-item, seven-point, Likert-type scale with the endpoints of “strongly disagree” and “strongly agree.” The scale included the following statements: “I rarely purchase the latest fashion styles until I am sure my friends approve of them,” “It is important that others like the products and brands I buy,” “When buying products, I generally purchase those brands that I think others will approve of,” “If other people can see me using a product, I often purchase the brand they expect me to buy,” “I like to know what brands and products make good impressions on others,” “I achieve a sense of belonging by purchasing the same products and brands that others purchase,” “If I want to be like someone, I often try to buy the same brands that they buy,” and “I often identify with other people by purchasing the same products and brands they purchase” ($\alpha = .95$).

Informational influence was measured using a seven-point, Likert-type scale with 1 = “strongly disagree” and 7 = “strongly agree.” The following four statements were used: “To make sure I buy the right product or brand, I often observe what others are buying and using,” “If I have little experience with a product, I often ask my friends about the product,” “I often consult other people to help me choose the best alternative available from a product class,” and “I frequently gather information from friends or family about a product before I buy” ($\alpha = .84$).

Dependent Variables.

Six dependent variables were used to assess the evaluations of the consumer review (and the reviewed brand). All dependent variables were multi-item scales drawn and modified from prior literature. The first dependent variable, consumers’ perception of the review, was adopted from Park, Lee, and Han’s (2007) online review positiveness scale. Participants were asked to indicate their perceived positiveness/negativeness of the

given review content using a seven-point, Likert-type scale, where 1 = “strongly disagree” and 7 = “strongly agree” in response to these three statements: “The consumer review positively evaluates the product,” “The consumer review negatively evaluates the product,” and “In general, the consumer review recommends the product” ($\alpha = .96$).

Drawn and modified from previous studies (Edward & Lee, 2002; Negash, Ryanb, & Igbariab, 2003), perceived informativeness of the review was measured on a four-item, seven-point, Likert-type scale with the endpoints of “strongly disagree” and “strongly agree.” It will include these statements: “The review is informative,” “The review helps me understand the product,” “The review is useful for understanding the product,” and “The review offers necessary information about the product” ($\alpha = .97$).

The perceived helpfulness of the review was assessed by adopting Maheswaran and Sternthal’s (1990) measure, a three, seven-point semantic differential scale (e.g., “not useful/useful,” “not helpful/helpful,” “not informative/informative”) ($\alpha = .97$).

Attitude toward the product was measured by adopting the guidelines of Stenthal *et al.*’s (1994) seven-point, semantic differential scale including three items, “bad/good,” “unsatisfactory/satisfactory,” and “unfavorable/favorable” ($\alpha = .96$).

Purchase intention was gauged on a seven-point, Likert-type scale with 1 = “strongly disagree” and 7 = “strongly agree.” Adopting Ajzen’s (2002) work, the questions included “I will probably try the product described in the review,” “It is possible that I will purchase the product described in the review,” and “It is likely that I will buy the product described in the review” ($\alpha = .97$).

Pass-along behavior was measured by adopting Sun *et al.*’s (2006) six-item online forwarding scale. The modified items were measured by utilizing a seven-point, Likert-type scale ranging from “strongly disagree” to “strongly agree.” Due to inappropriateness of the last two items of Sun *et al.*’s initial scale to this study, the modified scale included

the following four statements: “I am willing to pass on information about the smartphone described in the review to my online friends (e.g., social networks sites, email),” “I like to pass along the review that I just saw to my online friends (e.g., social networks sites, email),” “If I received this review from my friends, I would pass the review along to my other online friends (e.g., social networks sites, email),” and “If I received this review from my friends, I would pass the information about the smartphone along to my other online friends (e.g., social networks sites, email)” ($\alpha = .97$).

Manipulation Check.

The measure of participants’ perceptions of the valence of review ratings was carried out to ensure that the manipulation of the summary rating in the experimental cells was successful. Modified from Zhang, Craciun, and Shin’s approach (2010), participants rated the focal review on a seven-point, semantic differential scale including two items anchored by “negative/positive,” and “unfavorable/favorable” in order to assess the valence of the summary rating manipulation ($\alpha = .99$).

Covariates.

Three covariates were used to control any potential confounding effects. First, participants’ self-rated product knowledge was incorporated into this study. Previous studies on consumer product knowledge have found inconsistent relationships between consumer product knowledge and WOM behavior or information search behavior (e.g., Bansal & Voyer, 2000; Gilly, Graham, Wolfenbarger, & Yale, 1998; Johnson & Russco, 1984). Some studies have proposed a positive relationship between product knowledge and WOM behavior (e.g., Gilly *et al.*, 1998), and others have demonstrated a negative relationship between product knowledge and information search behavior (Brucks, 1985). A positive relationship happens because consumers who are knowledgeable about a

product do not feel it necessary to obtain additional product information, as they believe they already have enough (Bloch, Sherrell, & Ridgway, 1986; Gilly *et al.*, 1998). Other researchers argue that prior product knowledge encourages consumers to do a more extensive information search to process information faster and more easily than when they have little knowledge of the product (Johnson & Russco, 1984; Punj & Staelin, 1983). In essence, studies on consumer product knowledge and its impact on WOM behavior and information search behaviors have shown contradictory views. Therefore, to avoid any inconsistent relationships that may be caused by consumers' product knowledge, participants' self-rated product knowledge level was controlled for in this study.

Self-rated product knowledge was assessed via an established three-item scale designed by Smith and Park (1992). Participants were asked to indicate their agreement with four statements on a seven-point, Likert-type scale with the endpoints of "strongly disagree" and "strongly agree." These statements were used: "I feel very knowledgeable about smartphones," "If a friend asked me about a smartphone, I could give him or her advice about different brands," "If I had to purchase a smartphone today, I would need to gather very little information in order to make a wise decision," and "I feel very confident about my ability to tell the difference in quality among different brands of smartphones" ($\alpha = .95$).

Second, eWOM familiarity was controlled for in this study. Drawn from brand familiarity literature, it is suggested that brand familiarity influences consumer purchase decisions (Lane & Jacobson, 1995), and consumers are likely to behave in a similar manner when they process eWOM information (Park & Lee, 2009). Consequently, eWOM familiarity is likely to affect eWOM-based purchase decisions.

Adopted from the Kent and Allen's scale (1994), eWOM familiarity was measured on a seven-point semantic differential scale with three items (i.e., "unfamiliar/familiar," "inexperienced/experienced," and "not knowledgeable/knowledgeable") ($\alpha = .97$).

In addition to self-rated product knowledge and eWOM familiarity, participants' prior online purchase experience was controlled for in this study. Vast extant literature concludes that consumers' prior online shopping experience significantly affects their future online purchase intentions (Brown, *et al.*, 2001; Lynch and Ariely, 2000; Shim *et al.*, 2001). In that way, a satisfying online purchase experience can turn existing online consumers into repeated shoppers (Weber & Roehl, 1999).

Prior online purchase experience was gauged on a seven-point, Likert-type scale with 1 = "strongly disagree" and 7 = "strongly agree." Following the guidelines from Ling *et al.*'s work (2010), statements included "I am experienced with online product purchases," "I feel competent in purchasing products online," "I feel comfortable in purchasing products online," and "I feel that the online retailer site for purchasing products is easy to use" ($\alpha = .92$).

Demographic Information.

Basic demographic information was collected at the end of the questionnaire. This section included questions about online consumer review search experience, cell-phone ownership experience, age, gender, ethnicity, and college classification.

STUDY II: THE ROLE OF PERCEIVED RISK IN CONSUMERS' ATTITUDINAL AND BEHAVIORAL CONSEQUENCES

Study Design

To test the second hypothesis, this study employed a 2 (consumer susceptibility to interpersonal influence: high versus low) \times 2 (summary rating extremity: positive versus negative) \times 2 (perceived social risk: high versus low) between-subjects design. Two factors, valence of summary rating and perceived social risk of purchase situation, were experimentally induced. The high versus low perceived social risk was primed using a scenario involving a purchase situation. By adding two stimuli vignettes that included a neutral, two-sided consumer review with positive and negative summary ratings, the valence of summary rating was manipulated. As in Study I, consumer susceptibility to interpersonal influence was measured, and participants' self-rated product knowledge, eWOM familiarity, and prior online purchase experience were controlled for in this study.

Stimulus Development

Product Selection.

The stimulus product in this experiment was different from that of Study I in order to increase the generalizability of the research findings. Still, electronic products serve as good stimulus products for this study, as they satisfy external validity by being the number one product category for which most consumers seek peer consumers' opinions and detailed product information before making purchases (Mizerski, 1982). A new electronic book reader (hereafter e-book reader) was the product of interest for this study, and a fictitious, neutral brand name "Omega" that does not cause participants to automatically gravitate toward "positive" or "negative" feelings was used to avoid any

brand familiarity effects and stereotypes of brand awareness. A pretest that checked for brand name neutrality was conducted before the main experiment.

A total of 42 participants who were similar to the participants for the main experiment in demographics participated in this brand name neutrality pretest. As in Study 1, they were asked to indicate their feelings toward the brand name on a two, seven-point semantic differential scale (i.e., “negative/positive,” “unfavorable/favorable”) ($\alpha = .98$). The one-sample t -test (testing value of 4) result showed statistical insignificance on the brand name gravitation ($M = 3.63$, $SD = 1.54$; $t = 1.55$, $df = 41$, $p > .05$), meaning that the brand name did not gear toward either positive or negative feelings.

Scenarios.

The fabricated scenarios were used to manipulate the different levels of perceived social risk in a purchase situation. The scenario-based approach can reduce the risk of an artificial setting usually seen in common experiments (Cushing, 1985). The degree of importance of the situation must be considered when generating scenarios, as it determines the potential effect of risk (Koller, 1988). Purchasing a product for someone considered important is likely to generate a higher level of perceived social risk, as individuals do not want their purchase choice to cause them to be looked upon as being stupid or untrendy in the social group to which belong (Brody & Cunningham, 1968). Therefore, purchasing a product for a superior who is important to the participant can be a strategic manipulation of the study. For high social risk manipulation, participants were given a scenario in which they are looking for an e-book reader as a thank-you gift for a business partner with whom they want to have a good relationship. For the low social risk

condition, participants were exposed to a scenario in which they are seeking an e-book player for themselves for fun (see Appendix E).

Before the main experiment, a pretest, with a panel of 76 participants, was conducted to check if participants perceived a gift-giving situation for an employer as a high social risk purchase situation and a purchasing-for-self situation as a low social risk purchase situation. The unidimensional measure to be used in the main experiment was also employed to examine if two purchase situations were perceived differently, as intended. Participants were asked to rate the riskiness of a product purchase on a single item with 1 being “no risk” and 7 being “extremely risky” (*e.g.*, Hampton, 1977; Lutz & Reily, 1974; Spence, Engel, & Blackwell, 1970).

An independent *t*-test result revealed that two scenarios were perceived differently in terms of the level of riskiness of each purchase situation ($M_{high} = 4.78$ vs. $M_{low} = 3.18$; $t_{(75)} = 4.22, p < .05$).

Vignettes.

Two vignettes were generated for this study – one with a positive summary rating and one with a negative summary rating. Both vignettes were created based on the same logic and justifications as in Study I.

As with Study 1, the vignette contained neutral, two-sided content. After the online consumer review content was created, positive and negative summary ratings were added to the neutral consumer review content. To select externally valid product aspects when consumers purchase an e-book reader, actual online consumer review sites, Cnet and Amazon.com, were accessed and the content was analyzed. After 204 reviews were examined, functionality and specification were chosen as the most frequently mentioned

aspects of e-book readers on online consumer review sites. Then, messages from these real consumer reviews were selected and modified for the experiment.

Through the pretest process used in Study 1, it was found that the most appropriate review format in terms of bringing neutral feelings to consumers is the combination of pros, cons, and short statement of summary about the product. Following this logic, the neutral review content for an e-book reader including pros, cons, and short statement was created and tested by a two, seven-point semantic differential scale (i.e., “negative/positive,” “unfavorable/favorable”) ($\alpha = .94$). The result of one-sample *t*-test confirmed the appropriateness of the experimental review content for Study 2 ($M = 3.73$, $SD = 1.29$, $N = 51$; $t = 1.52$, $df = 50$, $p > .05$).

The stimulus online consumer review, therefore, starts with a summary rating, reviewer identification and review created date, and review content including pros, cons, and summary statement about the e-book reader. All of these elements were equalized except for the summary rating. Regarding the summary rating, following the star-rating system mentioned in Study 1, one star reflecting a negative perception of the product and four and half stars, which indicate a positive view of the product, were added to the content for the summary rating manipulation in Study 2 (see Appendix D).

Participants

Participants were recruited from the Amazon Mechanical Turk, where members of the pool are from various demographic backgrounds. A total of 243 members, the first 243 members of the pool who completed this study, (142 female, 58.4%) participated in this study, and upon completion of the study, they were rewarded for their participation by monetary compensation (50 cents). Participants ranged in age from 18 to 80 with a mean age of 37.07 ($SD = 12.74$). The racial/ethnic composition of the participants was

74.5.0% Caucasian (N = 181), 12.8% African American (N = 31), 7.4% Asian (N = 18), 4.1% Hispanic (N = 10). Of the remaining sample, 1.2% indicated they were either Native American or chose “other” (N = 3). Further, the majority of participants had at least some post-secondary education, and about half of them were single and the other half either lived with someone or was married at the time of survey completion (see Table 4.3).

Demographic Characteristics	Frequency	Percentage
<i>Gender</i>		
Male	101	41.6
Female	142	58.4
<i>Ethnicity</i>		
Caucasian	181	74.5
African-American	31	12.8
Asian	18	7.4
Hispanic	10	4.1
Pacific Islander	1	.4
Native American	1	.4
Other	1	.4
<i>Education</i>		
High school or equivalent	30	12.3
Vocation/technical school (2 years)	9	3.7
Some college	72	29.6
College graduate (4 years)	96	39.5
Master's degree	35	14.4
Other	1	.4
<i>Marital Status</i>		
Single	108	44.4
Married	84	34.6
Divorced	19	7.8
Living with someone	27	11.1
Separated	2	.8
Widowed	2	.8
Other	1	.4
<i>Household Income</i>		
Under \$10,000	21	8.6
\$10,000 to \$19,999	18	7.4
\$20,000 to \$29,999	25	10.3
\$30,000 to \$39,999	32	13.2
\$40,000 to \$49,999	38	15.6
\$50,000 to \$74,999	52	21.4
\$75,000 to \$99,999	27	11.1
Over \$100,000	26	10.7
Other	4	1.6

Table 4.3. Sample Characteristics of Study 2

Procedure

Study 2 was conducted online using the same procedure as Study 1. After creating the study site, study requests were posted on Amazon MTurk. Usually, the panel members of MTurk can browse available studies and are paid upon successful completion of each study. Once they click on this experimental study, they were directed to the study site.

Upon logging into the online study site, participants were given study information and instructions. A screening question was used to ensure all participants had experience of reading online consumer reviews. After the screening question, all qualified participants were led to the consent form. Once they agreed to take part, participants were randomly assigned to one of the four experimental conditions. Each of the participants was led to a stimulus scenario and a vignette corresponding to the manipulation, then they were asked to fill out the questionnaire containing dependent measures, susceptibility to interpersonal influence measures, manipulation checks, covariates, and demographic questions. Upon completing the study, they were debriefed by a summary statement and dismissed. Within a week period, participants who completed the study successfully received payments, 50 cents.

Measures

Consumer Susceptibility to Interpersonal Influence.

The same sets of measures as in Study 1 were used to measure susceptibility to interpersonal influence.

Dependent Variables.

The same sets of dependent variables as in Study 1 were employed to measure both review and product evaluations.

Manipulation Check.

The same set of measures as in Study 1 was used to determine participants' perceptions of the review valence. In addition to the review valence check, participants' level of perceived social risk primed by the stimulus scenario was assessed. The unidimensional measure, which asks participants to rate the riskiness of a product purchase on a single item with 1= "no risk" and 7= "extremely risky" was employed as it is one of the best-described measures of perceived social risk (*e.g.*, Hampton, 1977; Lutz & Reily, 1974; Spence, Engel, & Blackwell, 1970).

Covariates.

The same sets of covariates as in Study 1 were used

Demographic Information.

Basic demographic information was collected at the end of the questionnaire. This section included questions about online consumer review search experience, e-book reader ownership, age, gender, ethnicity, and college classification.

Major Constructs	# of Items	<i>α</i>
Interpersonal Influence		
<i>Normative</i>	8	.92
<i>Informational</i>	4	.89
Dependent Variables		
<i>Consumers' Perception of the Review</i>	3	.96
<i>Perceived Informativenss of Review</i>	4	.93
<i>Perceived Helpfulness of Review</i>	3	.95
<i>Product Attitude</i>	3	.95
<i>Purchase Intention</i>	3	.95
<i>Pass-along Intention</i>	4	.96
Manipulation Check		
<i>Valence of Summary Rating</i>	2	.99
Covariates		
<i>Self-rated Product Knowledge</i>	4	.95
<i>eWOM Familiarity</i>	3	.98
<i>Prior Online Purchase Experience</i>	4	.86

Table 4.4. Reliability Test Results of Study 2 Measures

Chapter 5: Results

STUDY I: CONSUMER SUSCEPTIBILITY TO INTERPERSONAL INFLUENCE AND REVIEW CUE PROCESSING

In order to analyze the first set of hypotheses, a series of two-way MANCOVAs was conducted for the six dependent variables. For the susceptibility to interpersonal influence fact, a median split was performed such that half of the participants were coded as having a high susceptibility to interpersonal influence and the remaining half were classified with have a low susceptibility to interpersonal influence. To ensure that participants appreciated the degree manipulation, the check of manipulation was also performed. After checking reliability of the six dependent variables, a single index for each dependent variable was formed by averaging the corresponding items. A series of MANCOVA tests was used to examine the hypotheses, and a planned contrast test was conducted to further examine the interaction effect.

Susceptibility to Interpersonal Influence

Prior to testing the effects of manipulation and hypothesis of the study, descriptive statistics of susceptibility to interpersonal influence were run to divide participants into two groups. As susceptibility to interpersonal influence is composed by two dimensions, normative and informational, two median scores were calculated and *t*-tested. The median score of normative influence was 4.25, ranging from 1.00 to 7.00. Thus, participants were grouped into high vs. low groups based upon sample's median score of 4.25, and an independent *t*-test ensured a significant mean difference of normative influence between two groups ($M_{\text{high}} = 5.55$ versus $M_{\text{low}} = 3.52$; $t_{(148)} = 16.19$, $p < .05$). In addition, the median score of informational influence ranged from 1.00 to 6.75,

calculating the median score of 4.50. Based on this median score of 4.50, participants were grouped into high vs. low, and an independent *t*-test result indicated a significant mean difference of informational influence between two groups ($M_{\text{high}} = 5.40$ versus $M_{\text{low}} = 3.48$; $t_{(148)} = 14.08, p < .05$).

Manipulation Check

The Valence of Star Rating

The *t*-test results of the manipulation check showed that the anticipated valence of star ratings was indeed primed by the vignette manipulation ($M_{\text{positive}} = 5.71$ versus $M_{\text{negative}} = 1.74$; $t_{(148)} = 20.04, p < .05$). That is, participants in the positive priming vignette produced a significantly higher score on valence of star rating than those in the negative priming vignette did; thus the manipulation of this study was successful.

Hypothesis Testing

A series of multivariate analysis of covariance (MANCOVA) tests was conducted to examine the proposed hypotheses. Two sets of MANCOVA tests were performed as susceptibility to interpersonal influence measure includes two dimensions—normative and informational. In these MANCOVA tests, the six dependent variables were assumed to be conceptually related one to another rather than independent of one another, and the high Pearson's correlation coefficients indicated the empirical relationship between these variables (all $r_s > .54, p < .001$).

After controlling for the covariates, results indicated that the interaction effect between the valence of star rating and susceptibility to interpersonal influence was not

statistically significant for both dimensions (*normative*: $F_{(6, 138)} = 1.50$, Wilk's Lambda = .94, $p > .05$, and *informational*: $F_{(6, 138)} = .44$, Wilk's Lambda = .98, $p > .05$), and did yield the same, insignificant results for one of the dimensions of susceptibility to interpersonal influence—the normative influence ($F_{(6, 138)} = 1.08$, Wilk's Lambda = .96, $p > .05$). However, another dimension of susceptibility to interpersonal influence—informational influence— was found to be significant on the combined six dependent variables ($F_{(6, 138)} = 4.05$, Wilk's Lambda = .85, $p < .05$), and results also showed a consistent pattern of significant effects for the valence of star rating (*normative*: $F_{(6, 138)} = 14.16$, Wilk's Lambda = .62, $p < .05$, and *informational*: $F_{(6, 138)} = 14.01$, Wilk's Lambda = .64, $p < .05$).

Univariate analyses of covariance (ANCOVAs) were then performed to assess the effects of the valence of star rating and susceptibility to interpersonal influence on each of the dependent measures. Due to two dimensions of susceptibility to interpersonal influence measure, two separate sets of ANCOVA tests examined the degree to which consumers would evaluate the product review and reviewed product either positively or negatively depending on the valence of the star rating and the participant's level of susceptibility to interpersonal influence.

The first set of ANCOVA tests examined the effect for the valence of star rating and normative influence. Results revealed no significant main effect for the normative influence on all six dependent variables ($F_s < 3$), while the valence of star rating appeared to have significant effects on product attitude ($M_{\text{positive}} = 3.70$ versus $M_{\text{negative}} = 2.07$; $F_{(1, 143)} = 68.56$, $p < .05$), purchase intention ($M_{\text{positive}} = 3.59$ versus $M_{\text{negative}} = 1.96$; $F_{(1, 143)} = 67.46$, $p < .05$), the evaluation of review ($M_{\text{positive}} = 3.84$ versus $M_{\text{negative}} = 2.06$; $F_{(1, 143)} = 74.09$, $p < .05$), perceived informativeness ($M_{\text{positive}} = 4.29$ versus $M_{\text{negative}} = 3.58$; $F_{(1, 143)} = 7.96$, $p < .05$), perceived helpfulness ($M_{\text{positive}} = 4.39$ versus $M_{\text{negative}} = 3.62$; $F_{(1,$

$_{143}) = 7.99, p < .05$), and pass-along behavior ($M_{\text{positive}} = 3.65$ versus $M_{\text{negative}} = 2.48$; $F_{(1, 143)} = 30.42, p < .05$). More interestingly, the results revealed a significant interaction effect between the valence of star rating and normative influence on product attitude ($F_{(1, 143)} = 5.09, p < .05$), purchase intention ($F_{(1, 143)} = 5.82, p < .05$), the evaluation of review ($F_{(1, 143)} = 4.55, p < .05$), perceived informativeness ($F_{(1, 143)} = 4.33, p < .05$), and pass-along behavior ($F_{(1, 143)} = 5.50, p < .05$). However, the interaction effect on perceived helpfulness was not statistically significant ($F_{(1, 143)} = 1.88, p > .05$) (see Figures 5.1 to 5.6).

Dependent Variable	Independent Variables		M	SE	N
	<i>Normative Influence</i>	<i>Review Valence</i>			
<i>Brand Attitude</i>	High	Positive	4.14	1.39	37
		Negative	2.07	1.12	39
		Total	3.08	1.63	76
	Low	Positive	3.25	1.38	36
		Negative	2.07	.99	38
		Total	2.64	1.33	74
	Total	Positive	3.70	1.45	73
Negative	2.07	1.05	77		
<i>Purchase Intention</i>	High	Positive	4.02	1.46	37
		Negative	1.91	1.06	39
		Total	2.94	1.65	76
	Low	Positive	3.16	1.28	36
		Negative	2.01	1.08	38
		Total	2.57	1.31	74
	Total	Positive	3.59	1.44	73
Negative	1.96	1.07	77		
<i>Evaluation of Review</i>	High	Positive	4.21	1.48	37
		Negative	1.99	1.12	39
		Total	3.07	1.71	76
	Low	Positive	3.45	1.41	36
		Negative	2.13	1.05	38
		Total	2.77	1.40	74
	Total	Positive	3.84	1.49	73
Negative	2.06	1.08	77		
<i>Perceived Informativeness</i>	High	Positive	4.78	1.42	37
		Negative	3.61	1.51	39
		Total	4.18	1.57	76
	Low	Positive	3.80	1.52	36
		Negative	3.56	1.45	38
		Total	3.68	1.48	74
	Total	Positive	4.29	1.54	73
Negative	3.58	1.47	77		
<i>Perceived Helpfulness</i>	High	Positive	4.83	1.52	37
		Negative	3.76	1.61	39
		Total	4.28	1.64	76
	Low	Positive	3.94	1.77	36
		Negative	3.48	1.56	38
		Total	3.70	1.67	74
	Total	Positive	4.39	1.70	73
Negative	3.62	1.58	77		
<i>Pass-along Behavior</i>	High	Positive	4.13	1.49	37
		Negative	2.44	1.29	39
		Total	3.26	1.62	76
	Low	Positive	3.16	1.39	36
		Negative	2.53	1.20	38
		Total	2.83	1.33	74
	Total	Positive	3.65	1.51	73
Negative	2.48	1.24	77		

Table 5.1: Cell Means and Standard Deviations (Normative Influence)

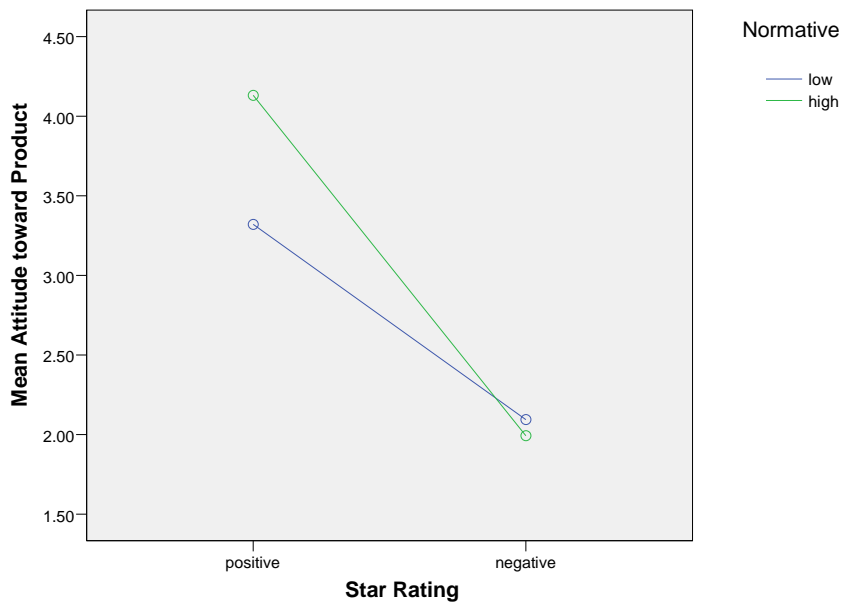


Figure 5.1: Mean attitude toward a product by valence of star rating and normative influence

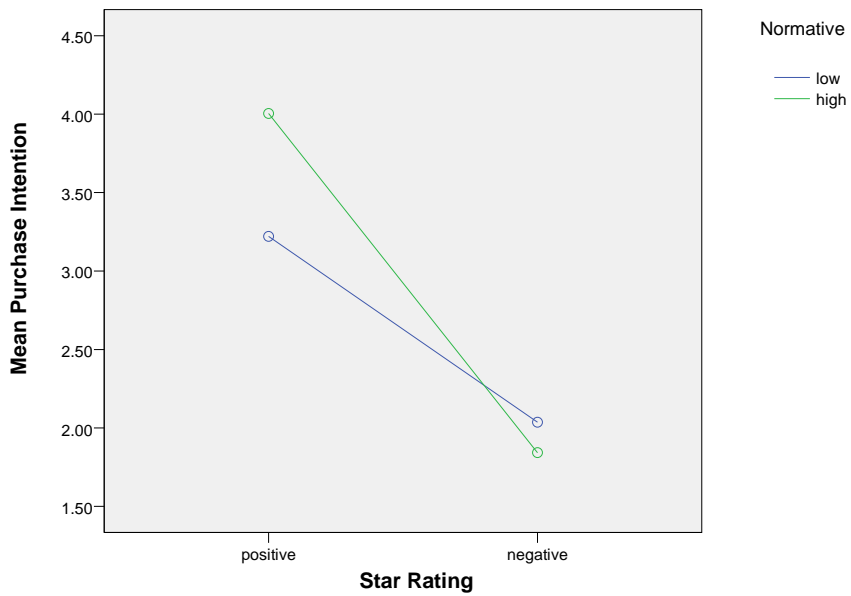


Figure 5.2: Mean purchase intention by valence of star rating and normative influence

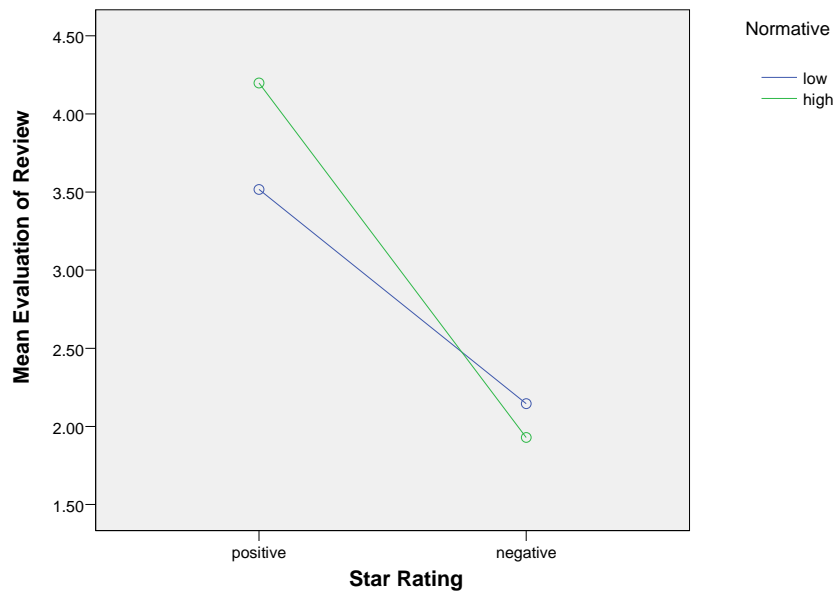


Figure 5.3: Mean evaluation of review by valence of star rating and normative influence

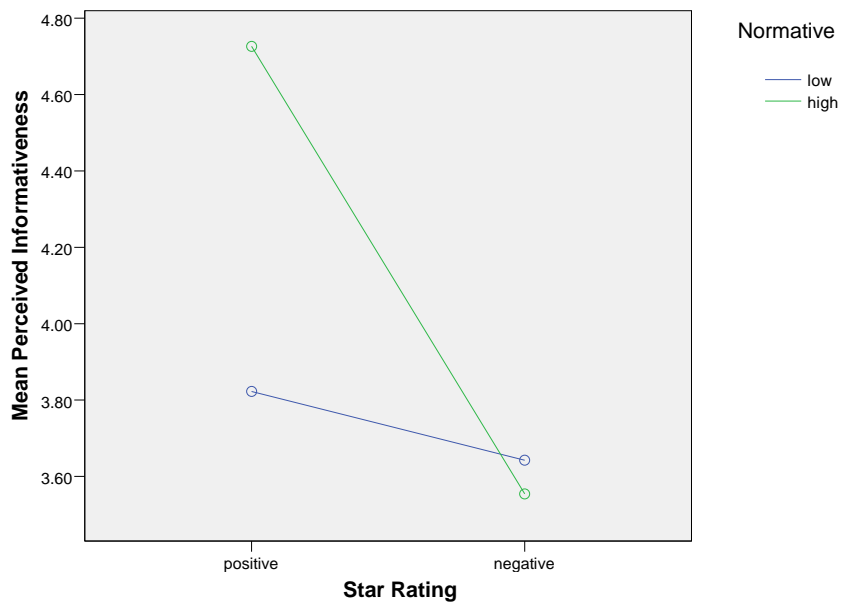


Figure 5.4: Mean perceived informativeness by valence of star rating and normative influence

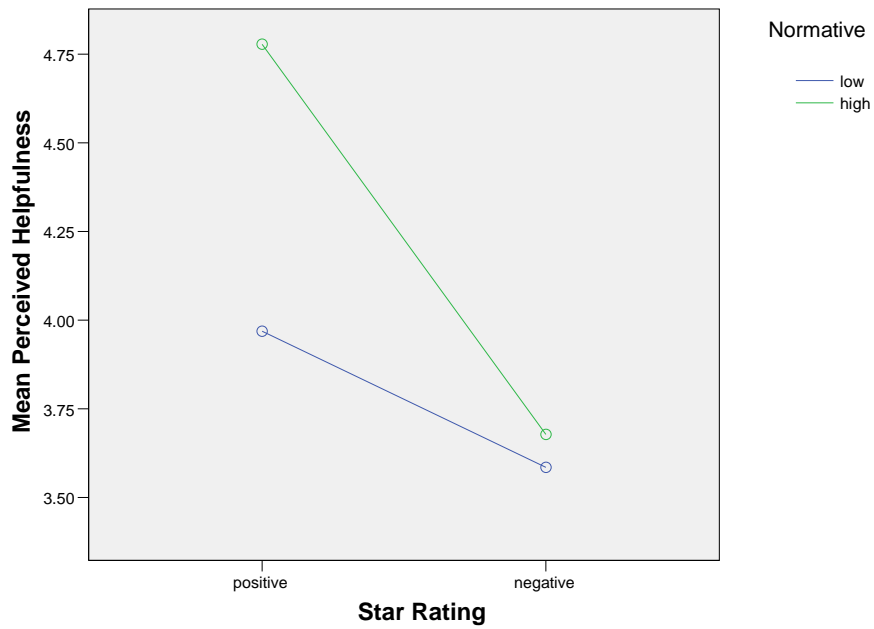


Figure 5.5: Mean perceived helpfulness by valence of star rating and normative influence

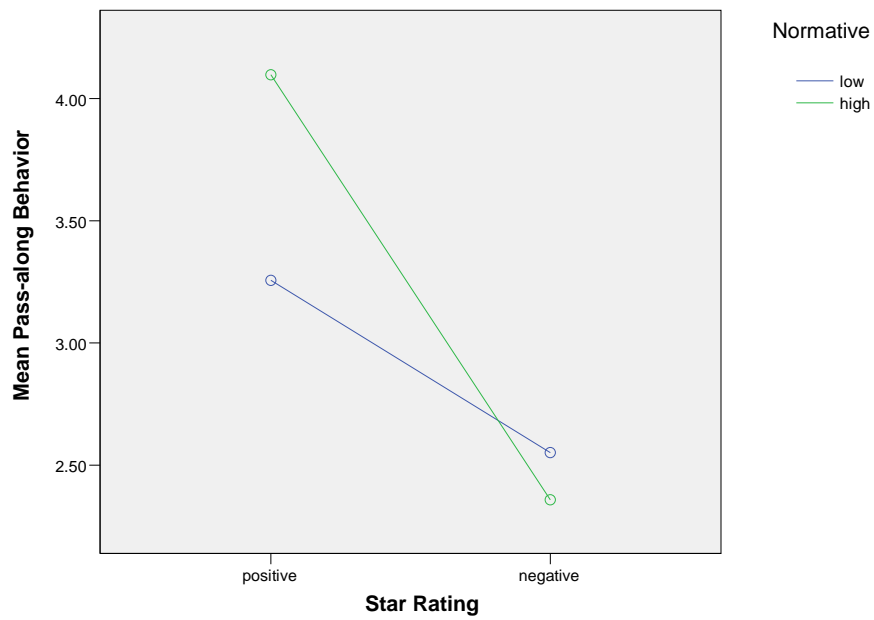


Figure 5.6: Mean pass-along behavior by valence of star rating and normative influence

To further examine the interaction effect between the valence of star rating and normative influence, orthogonal planned contrast analyses were additionally conducted. For participants having a high susceptibility to normative influence, the positive star rating induced higher positive attitude toward the product ($M_{\text{high*positive}} = 3.25$) than the negative star rating did ($M_{\text{high*negative}} = 2.07$; $F_{(1, 72)} = 17.91, p < .05$), and did yield higher purchase intention ($M_{\text{high*positive}} = 3.16$ versus $M_{\text{high*negative}} = 2.01$; $F_{(1, 72)} = 17.33, p < .05$), positive evaluation of the review ($M_{\text{high*positive}} = 3.45$ versus $M_{\text{high*negative}} = 2.13$; $F_{(1, 72)} = 20.95, p < .05$), and higher pass-along behavior ($M_{\text{high*positive}} = 3.12$ versus $M_{\text{high*negative}} = 2.53$; $F_{(1, 72)} = 4.41, p < .05$) than the negative star rating did. In addition to that, participants having a low susceptibility to normative influence showed more a negative attitude toward the product exerted with the negative star rating ($M_{\text{low*negative}} = 2.07$) than the positive star rating ($M_{\text{low*positive}} = 4.14$; $F_{(1, 74)} = 51.62, p < .05$), and this pattern was found to be the same for the other five dependent measures (*purchase intention*: $M_{\text{low*positive}} = 4.01$ versus $M_{\text{low*negative}} = 1.91$; $F_{(1, 74)} = 51.84, p < .05$, *the evaluation of review*: $M_{\text{low*positive}} = 4.21$ versus $M_{\text{low*negative}} = 1.99$; $F_{(1, 74)} = 54.67, p < .05$, *perceived informativeness*: $M_{\text{low*positive}} = 4.78$ versus $M_{\text{low*negative}} = 3.61$; $F_{(1, 74)} = 12.01, p < .05$, *perceived helpfulness*: $M_{\text{low*positive}} = 4.83$ versus $M_{\text{low*negative}} = 3.76$; $F_{(1, 74)} = 8.85, p < .05$, and *pass-along behavior*: $M_{\text{low*positive}} = 4.13$ versus $M_{\text{low*negative}} = 2.44$; $F_{(1, 74)} = 28.01, p < .05$).

The second set of ANCOVA tests investigated the effect for the valence of star rating and informational influence. As with the normative influence test, two-way ANOVAs were conducted to examine the hypotheses for six dependent measures. Results indicated a significant main effect for the informative influence on product attitude ($M_{\text{high}} = 3.40$ versus $M_{\text{low}} = 2.40$; $F_{(1, 143)} = 13.19, p < .05$), purchase intention ($M_{\text{high}} = 3.22$ versus $M_{\text{low}} = 2.35$; $F_{(1, 143)} = 8.37, p < .05$), the evaluation of review ($M_{\text{high}} = 3.50$ versus

$M_{low} = 2.43$; $F_{(1, 143)} = 14.55$, $p < .05$), perceived informativeness ($M_{high} = 4.43$ versus $M_{low} = 3.49$; $F_{(1, 143)} = 8.89$, $p < .05$), perceived helpfulness ($M_{high} = 4.58$ versus $M_{low} = 3.49$; $F_{(1, 143)} = 11.38$, $p < .05$), and pass-along behavior ($M_{high} = 3.53$ versus $M_{low} = 2.64$; $F_{(1, 143)} = 9.32$, $p < .05$). The main effect for the valence of star rating also turned out to be significant on product attitude ($M_{positive} = 3.70$ versus $M_{negative} = 2.07$; $F_{(1, 143)} = 60.46$, $p < .05$), purchase intention ($M_{positive} = 3.59$ versus $M_{negative} = 1.96$; $F_{(1, 143)} = 59.66$, $p < .05$), the evaluation of review ($M_{positive} = 3.84$ versus $M_{negative} = 2.06$; $F_{(1, 143)} = 67.10$, $p < .05$), perceived informativeness ($M_{positive} = 4.29$ versus $M_{negative} = 3.58$; $F_{(1, 143)} = 5.67$, $p < .05$), perceived helpfulness ($M_{positive} = 4.39$ versus $M_{negative} = 3.62$; $F_{(1, 143)} = 5.48$, $p < .05$), and pass-along behavior ($M_{positive} = 3.65$ versus $M_{negative} = 2.48$; $F_{(1, 143)} = 25.79$, $p < .05$) as the informative influence did. However, different from the results of the first set of ANCOVA tests, the valence of star rating x informational influence interaction was not detected ($F_s < 2$) (see Figures 5.7 to 5.12). Taken together, H1a and H1b were partially supported by the study.

Dependent Variable	Independent Variables		M	SE	N
	<i>Informational Influence</i>	<i>Review Valence</i>			
<i>Brand Attitude</i>	High	Positive	4.07	1.32	41
		Negative	2.44	1.28	29
		Total	3.40	1.53	70
	Low	Positive	3.23	1.49	32
		Negative	1.85	.83	48
		Total	2.40	1.32	80
	Total	Positive	3.70	1.45	73
		Negative	2.07	1.05	77
	<i>Purchase Intention</i>	High	Positive	3.92	1.37
Negative			2.23	1.27	29
Total			3.22	1.56	70
Low		Positive	3.18	1.43	32
		Negative	1.80	.90	48
		Total	2.35	1.32	80
Total		Positive	3.59	1.44	73
		Negative	1.96	1.07	77
<i>Evaluation of Review</i>		High	Positive	4.27	1.30
	Negative		2.40	1.33	29
	Total		3.50	1.60	70
	Low	Positive	3.28	1.55	32
		Negative	1.85	.85	48
		Total	2.43	1.37	80
	Total	Positive	3.84	1.49	73
		Negative	2.06	1.08	77
	<i>Perceived Informativeness</i>	High	Positive	4.67	1.35
Negative			4.09	1.51	29
Total			4.43	1.44	70
Low		Positive	3.81	1.66	32
		Negative	3.28	1.37	48
		Total	3.49	1.51	80
Total		Positive	4.30	1.54	73
		Negative	3.58	1.47	77
<i>Perceived Helpfulness</i>		High	Positive	4.81	1.61
	Negative		4.24	1.77	29
	Total		4.58	1.69	70
	Low	Positive	3.84	1.67	32
		Negative	3.25	1.34	48
		Total	3.49	1.50	80
	Total	Positive	4.39	1.70	73
		Negative	3.62	1.58	77
	<i>Pass-along Behavior</i>	High	Positive	4.05	1.50
Negative			2.78	1.43	29
Total			3.53	1.59	70
Low		Positive	3.13	1.38	32
		Negative	2.31	1.08	48
		Total	2.64	1.27	80
Total		Positive	3.65	1.51	73
		Negative	2.48	1.24	77

Table 5.2: Cell Means and Standard Deviations (Informational Influence)

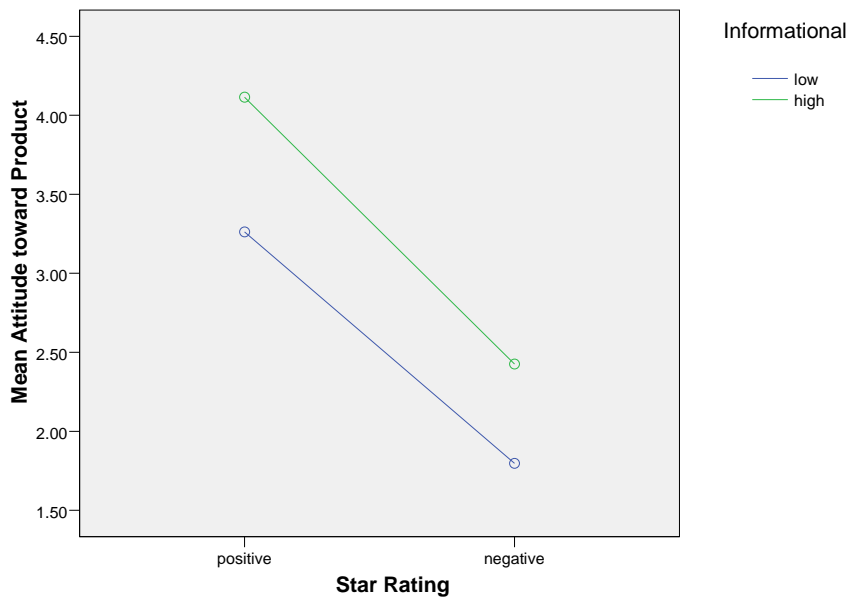


Figure 5.7: Mean attitude toward ad product by valence of star rating and informational influence

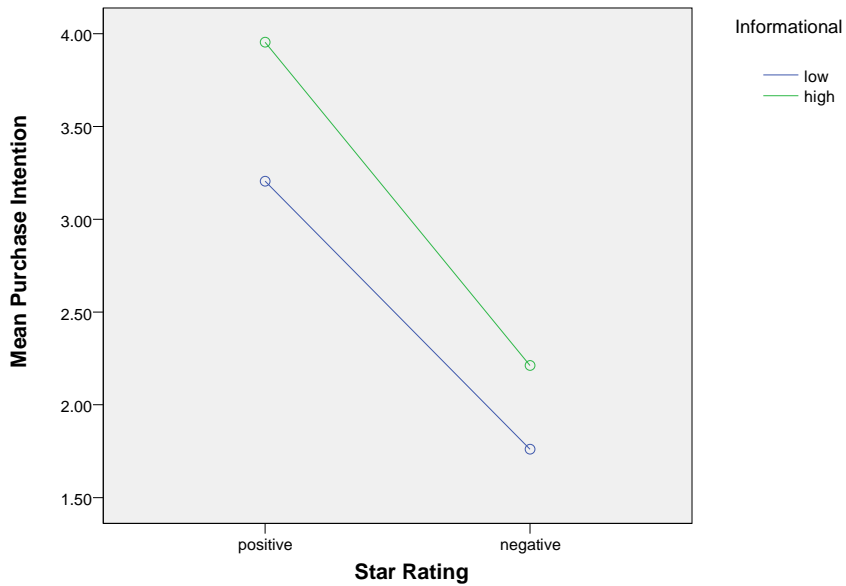


Figure 5.8: Mean purchase intention by valence of star rating and informational influence

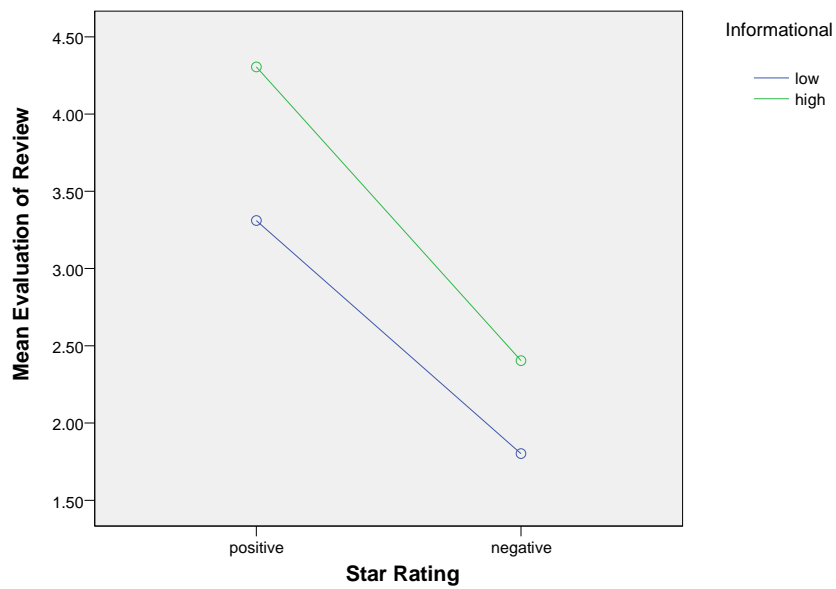


Figure 5.9: Mean evaluation of review by valence of star rating and informational influence

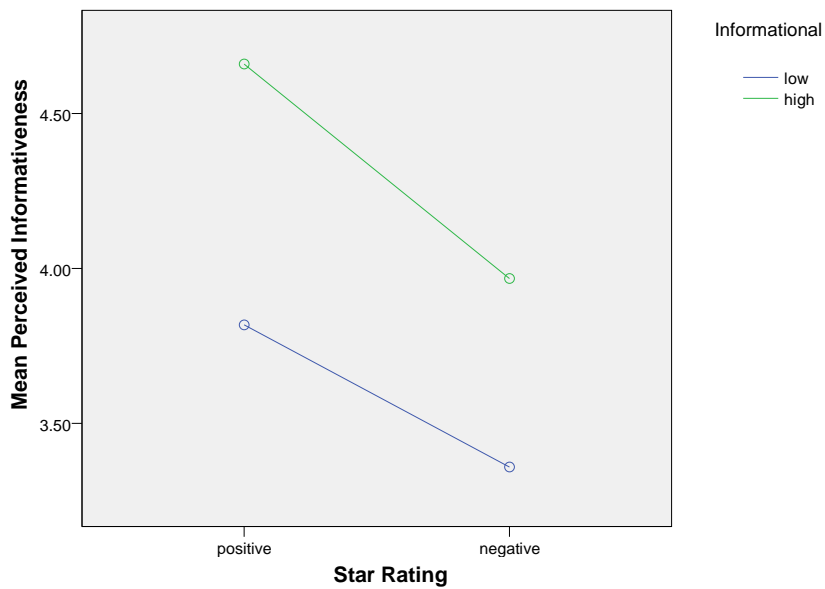


Figure 5.10: Mean perceived informativeness by valence of star rating and informational influence

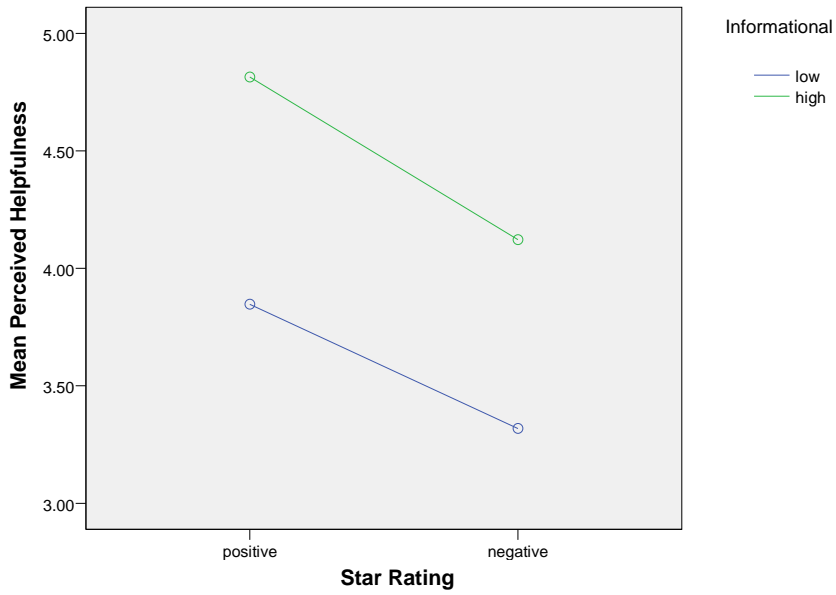


Figure 5.11: Mean perceived helpfulness by valence of star rating and informational influence

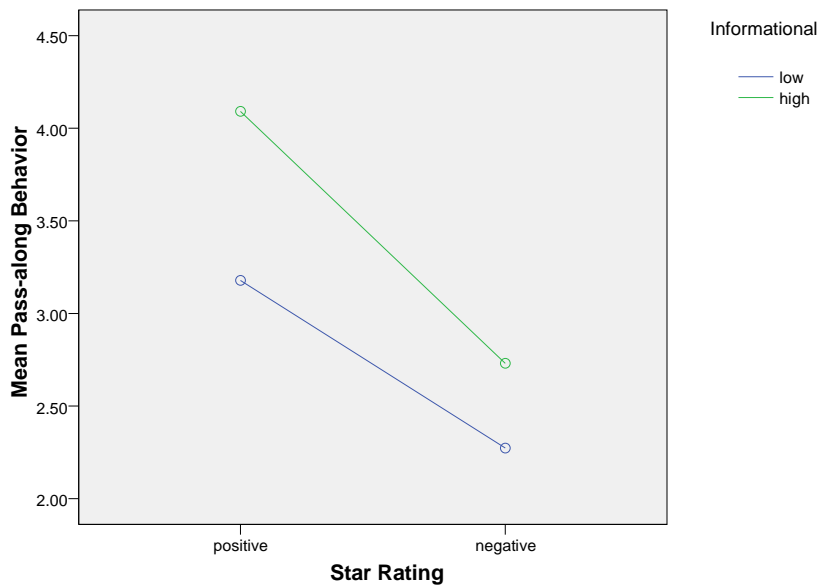


Figure 5.12: Mean pass-along behavior by valence of star rating and informational influence

STUDY II: THE ROLE OF PERCEIVED RISK IN CONSUMERS' ATTITUDINAL AND BEHAVIORAL CONSEQUENCES

A series of three-way MANCOVAs was used to test whether perceived risks can affect the evaluation of positive vs. negative online consumer reviews relative to consumer susceptibility to interpersonal influence. For the susceptibility to interpersonal influence factor, a median split was performed such that half of the participants were coded as having a high susceptibility to interpersonal influence and the remaining half were classified as having a low susceptibility to interpersonal influence. To ensure that participants appreciated the degree of manipulation, the check of manipulations was also performed. After checking reliability of the six dependent variables, a single index for each dependent variable was formed by averaging the corresponding items. A series of MANCOVA tests was used to examine the hypotheses, and a planned contrast test was conducted to further examine the interaction effect.

Susceptibility to Interpersonal Influence

Prior to testing the effects of manipulation and hypothesis of the study, descriptive statistics of susceptibility to interpersonal influence were run to divide participants into two groups. As susceptibility to interpersonal influence is composed by two dimensions, normative and informational, two median scores were calculated and *t*-tested. The median score of normative influence was 4.55, ranging from 1.00 to 7.00. Thus, participants were grouped into high vs. low groups based upon sample's median score of 4.55, and an independent *t*-test ensured a significant mean difference of normative influence between two groups ($M_{\text{high}} = 5.57$ versus $M_{\text{low}} = 3.62$; $t_{(241)} = 19.43$, $p < .05$). In addition, the median score of informational influence ranged from 1.00 to 7.00, calculating the median score of 4.75. Based on this median score of 4.75, participants

were grouped into high vs. low, and an independent t -test result indicated a significant mean difference of informational influence between two groups ($M_{\text{high}} = 5.58$ versus $M_{\text{low}} = 3.80$; $t_{(241)} = 15.93, p < .05$).

Manipulation Check

The Valence of Star Rating

The t -test results of the manipulation check showed that the anticipated valence of star ratings was indeed primed by the vignette manipulation ($M_{\text{positive}} = 6.02$ versus $M_{\text{negative}} = 1.31$; $t_{(241)} = 53.79, p < .05$). That is, participants in the positive priming vignette produced a significantly higher score on valence of star rating than those in the negative priming vignette did; thus the manipulation of this study was successful.

Level of Perceived Social Risk

In addition to the review valence check, the t -test that checked participants' level of perceived social risk primed by the stimulus scenario was assessed. Results indicated significant difference between gift-purchasing for a superior situation and fun-looking, self-purchase situation, which yielded a successful manipulation of the study ($M_{\text{superior}} = 4.16$ versus $M_{\text{self}} = 3.57$; $t_{(241)} = 3.23, p < .05$). In that scenario, participants in the gift-purchasing situation perceived the purchase situation to be riskier than those who were in the self-purchasing situation.

Hypothesis Testing

After entering self-rated product knowledge, prior online purchase experience, and eWOM familiarity as covariates to control for their variances, a series of 2 x 2 x 2

MANCOVA tests was performed with the manipulated independent variables being the valence of star rating (Positive, Negative) and perceived social risk (Low, High), the measured independent variable susceptibility to interpersonal influence (Low, High), and the six dependent variables. Two sets of MANCOVA tests were performed as susceptibility to interpersonal influence measure includes two dimensions—normative and informational. In these MANCOVA tests, the zero-order correlations among the dependent variables were examined. All dependent variables were significantly positively correlated with one another at the .001 level (all $r_s > .57$).

As shown in Table 5.3, significant main effects of the valence of star rating (Wilks' Lambda = .41, $p < .05$), and normative influence (Wilks' Lambda = .94, $p < .05$) were obtained, as were trends for two-way interactions for the valence of star rating x normative influence (Wilks' Lambda = .91, $p < .05$).

Multivariate Factor	Wilks' Lambda	F-value	p-value
Star rating	.41	54.79	.001
Perceived risk	.99	.32	.924
Normative influence	.94	2.55	.021
Star rating x Perceived risk	.99	.57	.755
Star rating x Normative influence	.91	3.89	.001
Perceived risk x Normative influence	.96	1.53	.168
Star rating x Perceived risk x Normative influence	.98	.74	.622

Table 5.3: Multivariate Analysis of Covariance Results (Normative Influence)

Results of another dimension of susceptibility to interpersonal influence—informational influence—indicated a significant main effect of the valence of star rating on the combined six dependent variables (Wilks' Lambda = .45, $p < .05$). However, no other significant effects were detected (see Table 5.4).

Multivariate Factor	Wilks' Lambda	F-value	p-value
Star rating	.45	47.20	.001
Perceived risk	.98	.68	.667
Informational influence	.96	1.45	.196
Star rating x Perceived risk	.99	.24	.963
Star rating x Informational influence	.96	1.62	.142
Perceived risk x Informational influence	.99	2.02	.976
Star rating x Perceived risk x Informational influence	.99	2.02	.976

Table 5.4: Multivariate Analysis of Covariance Results (Informational Influence)

To further explore the results of MANCOVA tests, univariate ANCOVAs including tests for the valence of star rating, perceived risk, normative influence, and the two- and three-way interactions among these variables on each dependent variable was performed. As suggested by the ANCOVA results in Table 5.5, the valence of star rating showed significant main effects on product attitude ($M_{\text{positive}} = 3.97$ versus $M_{\text{negative}} = 2.09$), purchase intention ($M_{\text{positive}} = 3.91$ versus $M_{\text{negative}} = 1.90$), the evaluation of review ($M_{\text{positive}} = 4.00$ versus $M_{\text{negative}} = 2.13$), perceived informativeness ($M_{\text{positive}} = 4.07$ versus $M_{\text{negative}} = 2.22$), perceived helpfulness ($M_{\text{positive}} = 4.12$ versus $M_{\text{negative}} = 2.23$), and pass-along behavior ($M_{\text{positive}} = 4.10$ versus $M_{\text{negative}} = 2.26$), as was the normative influence main effects on product attitude ($M_{\text{high}} = 3.19$ versus $M_{\text{low}} = 2.81$), purchase intention ($M_{\text{high}} = 3.06$ versus $M_{\text{low}} = 2.67$), the evaluation of review ($M_{\text{high}} = 3.20$ versus $M_{\text{low}} = 2.86$), perceived informativeness ($M_{\text{high}} = 3.32$ versus $M_{\text{low}} = 2.89$), perceived helpfulness ($M_{\text{high}} = 3.32$ versus $M_{\text{low}} = 2.94$), and pass-along behavior ($M_{\text{high}} = 3.33$ versus $M_{\text{low}} = 2.97$). However, no significant main effects for the perceived risk on all six dependent variables were detected ($F_s < 1$).

More precisely, the results indicated a significant interaction effect between the valence of star rating and normative influence on product attitude ($F_{(1, 232)} = 9.58$, $p < .05$), purchase intention ($F_{(1, 232)} = 20.92$, $p < .05$), the evaluation of review ($F_{(1, 232)} = 11.21$, $p < .05$), perceived informativeness ($F_{(1, 232)} = 8.56$, $p < .05$), and perceived

helpfulness ($F_{(1, 232)} = 4.45, p < .05$) while the interaction effect on pass-long behavior was marginally significant ($F_{(1, 232)} = 3.67, p = .057$). However, the valence of star rating x perceived social risk influence interaction was not detected ($F_s < 3$). Interestingly, although no significant interaction effects between the valence of star rating and perceived social risk were detected, some significant and marginally significant interaction effects between normative influence and perceived social risk were found (*product attitude*: $F_{(1, 232)} = 4.02, p < .05$, *purchase intention*: $F_{(1, 232)} = 3.20, p = .075$, *the evaluation of review*: $F_{(1, 232)} = 8.20, p < .05$, *perceived informativeness*: $F_{(1, 232)} = 4.80, p < .05$, and *pass-along behavior*: $F_{(1, 232)} = 3.81, p = .052$). However, no significant three-way interaction on any dependent variables was detected throughout the Study 2 ($F_s < 1$). Only marginally significant three-way interaction on purchase intention was detected ($F_{(1, 232)} = 3.20, p = .075$).

Dependent Variable	Factor	F-value	p-value
<i>Product Attitude</i>	Star rating	165.54	.001
	Perceived risk	.32	.570
	Normative influence	8.16	.005
	Star rating x Perceived risk	.72	.396
	Star rating x Normative influence	9.58	.002
	Perceived risk x Normative influence	4.02	.046
	Star rating x Perceived risk x Normative influence	.35	.555
<i>Purchase Intention</i>	Star rating	207.25	.001
	Perceived risk	.92	.340
	Normative influence	9.18	.003
	Star rating x Perceived risk	2.45	.119
	Star rating x Normative influence	20.92	.001
	Perceived risk x Normative influence	3.20	.075
	Star rating x Perceived risk x Normative influence	3.32	.070
<i>Evaluation of Review</i>	Star rating	196.60	.001
	Perceived risk	.13	.722
	Normative influence	9.23	.004
	Star rating x Perceived risk	1.21	.298
	Star rating x Normative influence	11.21	.002
	Perceived risk x Normative influence	8.20	.007
	Star rating x Perceived risk x Normative influence	.216	.660
<i>Perceived Informativeness</i>	Star rating	143.05	.001
	Perceived risk	.066	.797
	Normative influence	8.60	.004
	Star rating x Perceived risk	.71	.400
	Star rating x Normative influence	8.56	.004
	Perceived risk x Normative influence	4.80	.029
	Star rating x Perceived risk x Normative influence	.36	.552
<i>Perceived Helpfulness</i>	Star rating	133.03	.001
	Perceived risk	.20	.657
	Normative influence	5.74	.017
	Star rating x Perceived risk	.01	.934
	Star rating x Normative influence	4.45	.036
	Perceived risk x Normative influence	2.04	.155
	Star rating x Perceived risk x Normative influence	.01	.941
<i>Pass-along Behavior</i>	Star rating	143.82	.001
	Perceived risk	.25	.620
	Normative influence	6.03	.015
	Star rating x Perceived risk	.81	.369
	Star rating x Normative influence	3.67	.057
	Perceived risk x Normative influence	3.81	.052
	Star rating x Perceived risk x Normative influence	.11	.742

Table 5.5: Univariate Analysis of Covariance Results (Normative Influence)

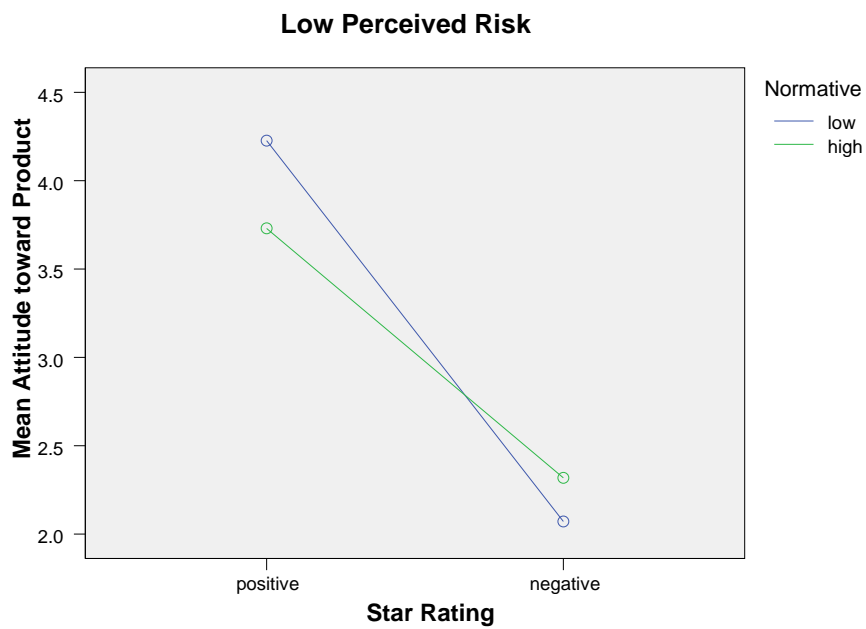
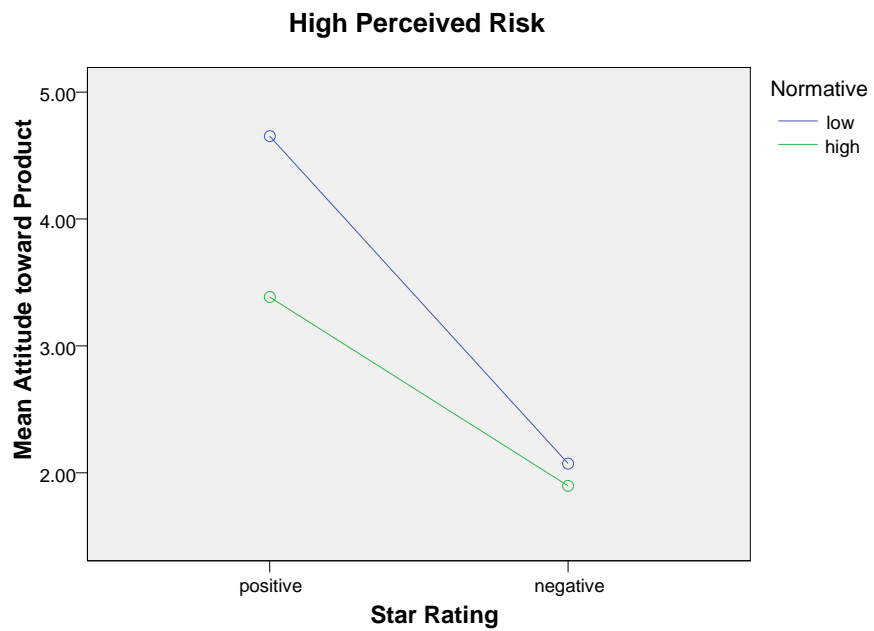


Figure 5.13: Mean attitude toward a product by valence of star rating, perceived risk, and normative influence

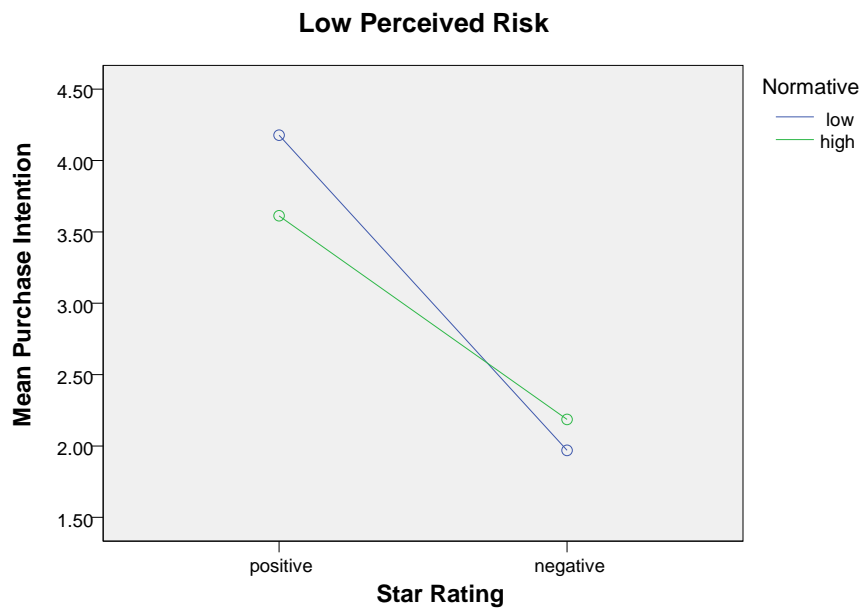
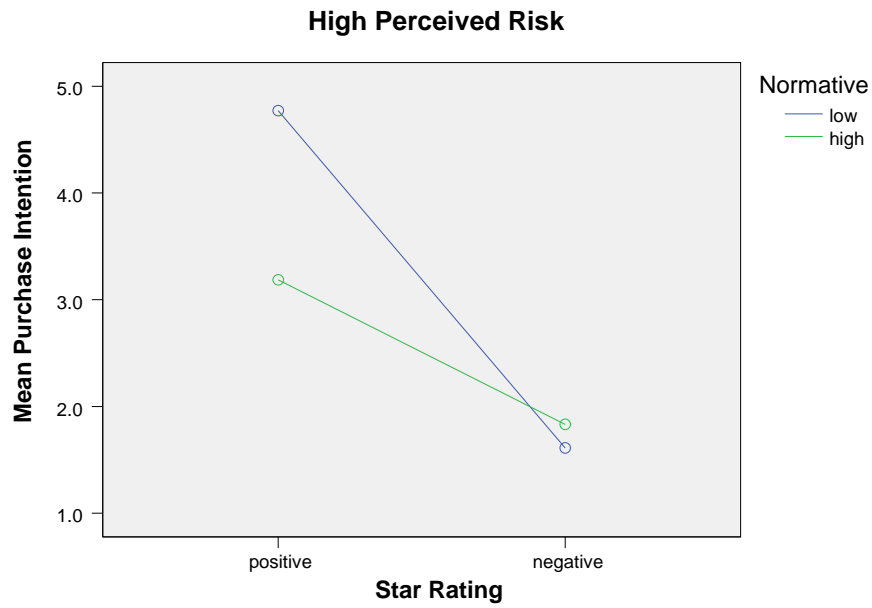


Figure 5.14: Mean purchase intention by valence of star rating, perceived risk, and normative influence

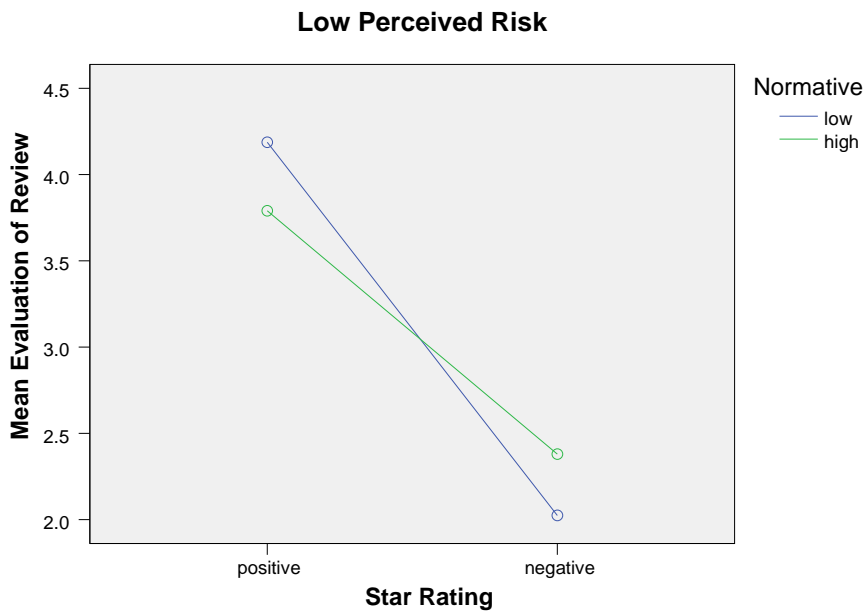
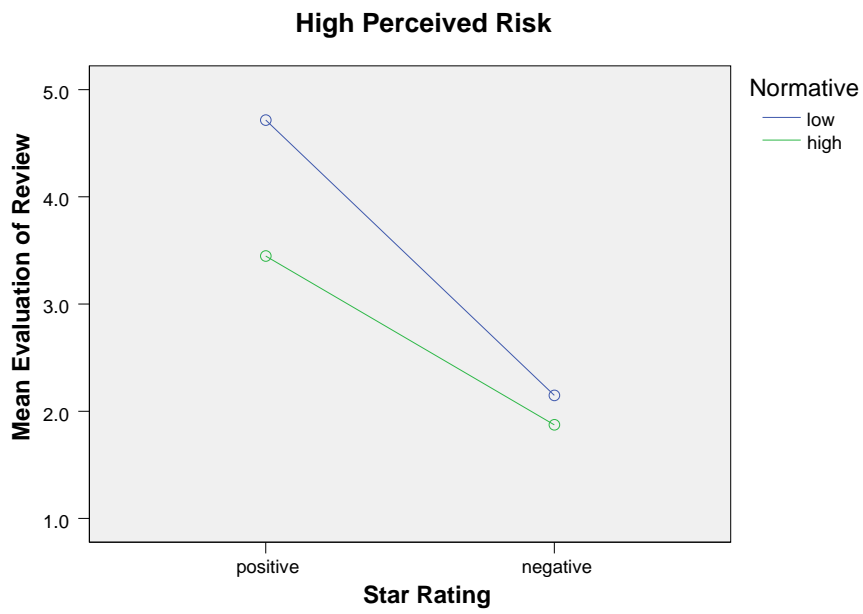


Figure 5.15: Mean evaluation of review by valence of star rating, perceived risk, and normative influence

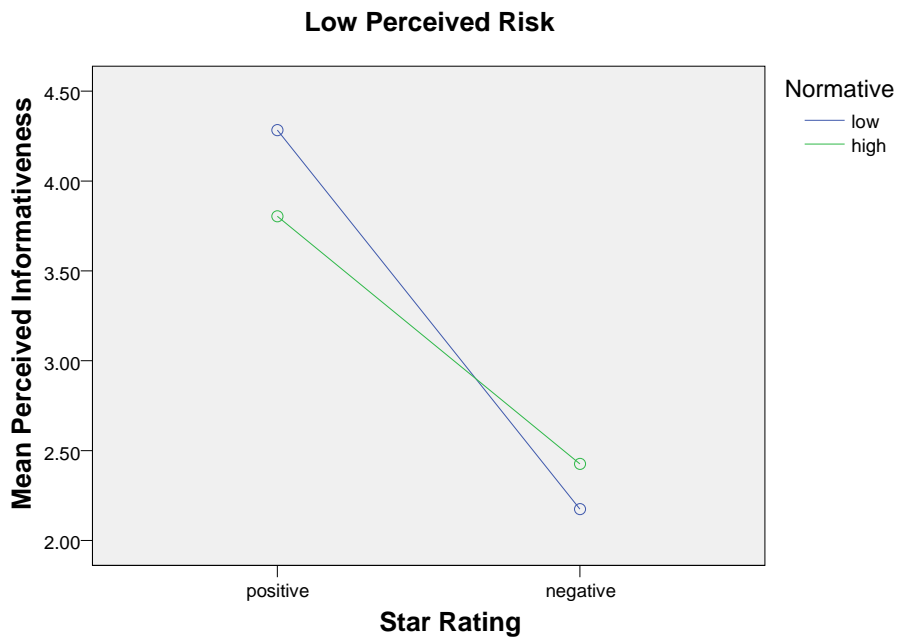
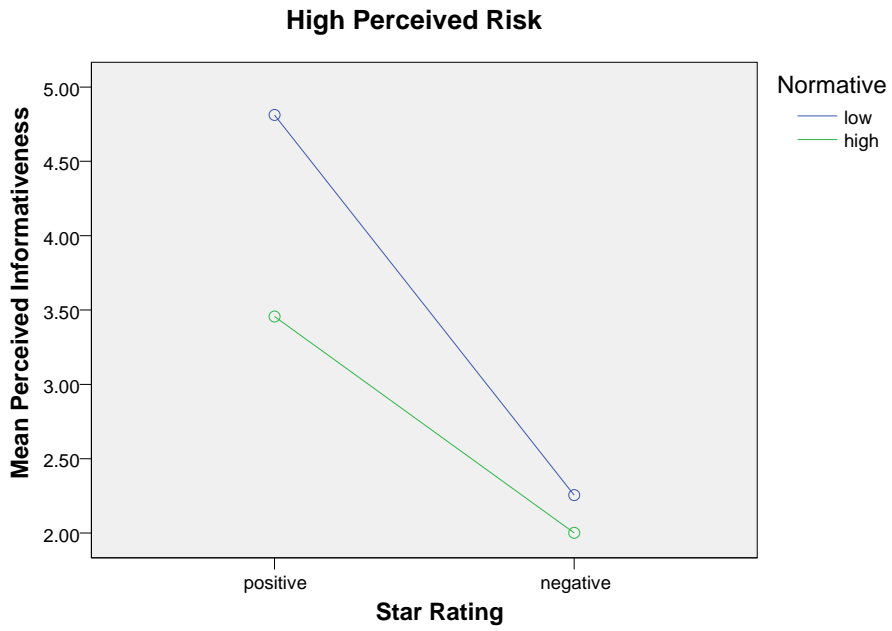


Figure 5.16: Mean perceived informativeness by valence of star rating, perceived risk, and normative influence

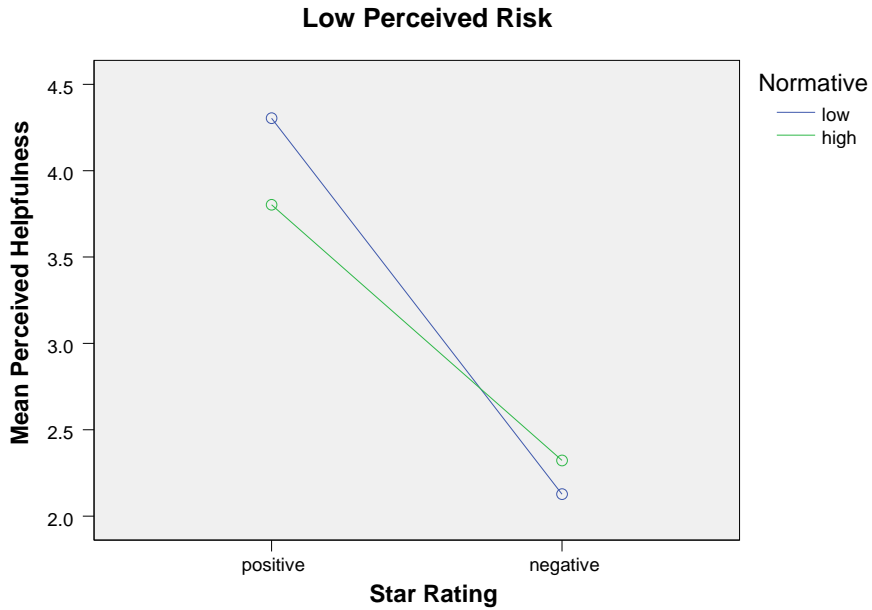
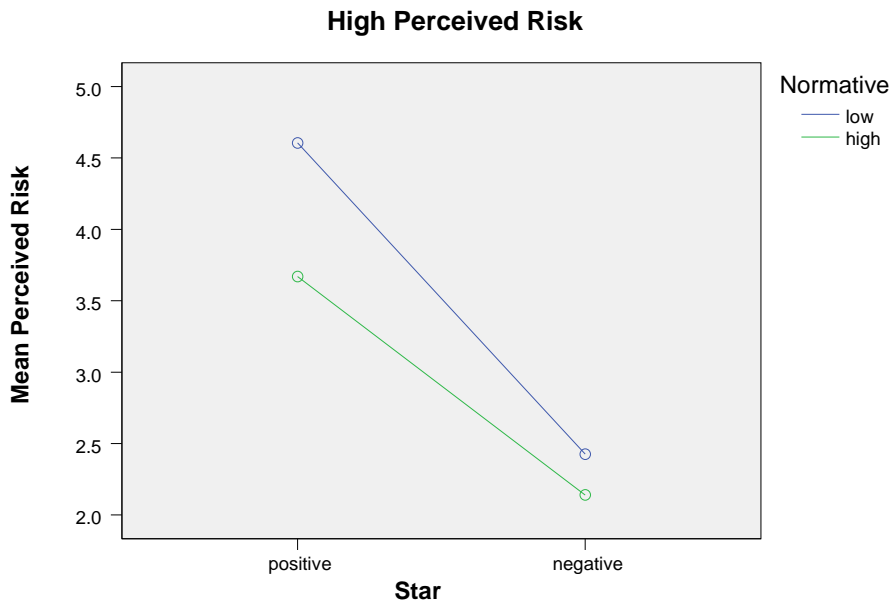


Figure 5.17: Mean perceived helpfulness by valence of star rating, perceived risk, and normative influence

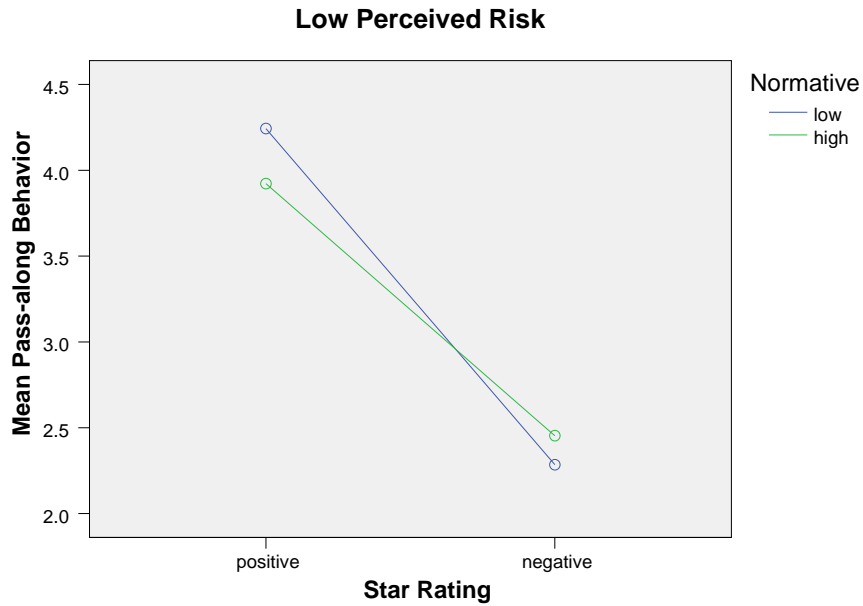
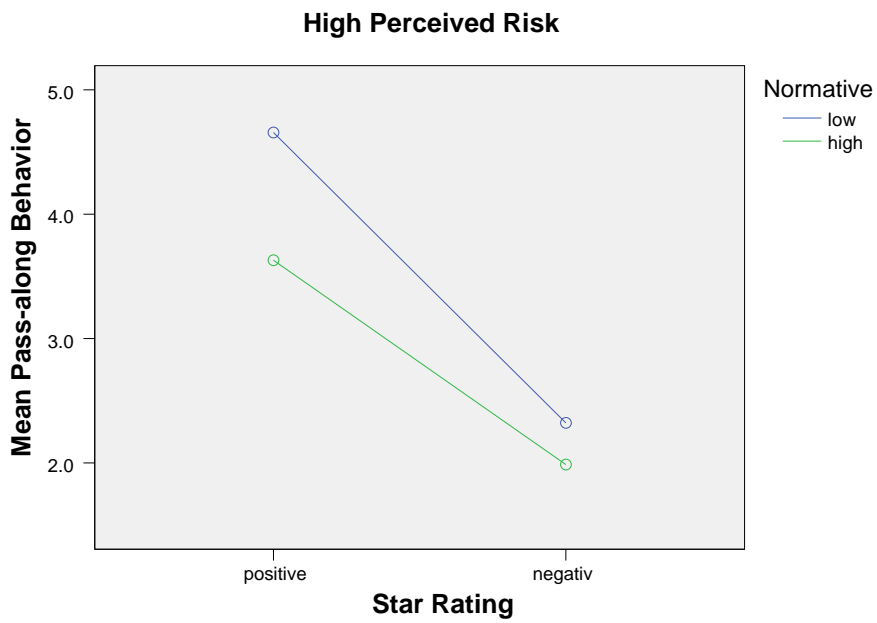


Figure 5.18: Mean pass-along behavior by valence of star rating, perceived risk, and normative influence

To further examine the valence of star rating x normative influence interaction, orthogonal planned contrast analyses were conducted. For participants having a high susceptibility to normative influence, the positive star rating induced higher positive attitude toward the product ($M_{\text{high*positive}} = 4.46$) than the negative star rating did ($M_{\text{high*negative}} = 2.07$; $F_{(1, 124)} = 131.69$, $p < .05$), as did also yield higher purchase intention ($M_{\text{high*positive}} = 4.48$ versus $M_{\text{high*negative}} = 1.80$; $F_{(1, 124)} = 159.63$, $p < .05$), positive evaluation of the review ($M_{\text{high*positive}} = 4.45$ versus $M_{\text{high*negative}} = 2.08$; $F_{(1, 124)} = 159.02$, $p < .05$), higher perceived informativeness ($M_{\text{high*positive}} = 4.58$ versus $M_{\text{high*negative}} = 2.22$; $F_{(1, 124)} = 107.82$, $p < .05$), higher perceived helpfulness ($M_{\text{high*positive}} = 4.50$ versus $M_{\text{high*negative}} = 2.28$; $F_{(1, 124)} = 80.23$, $p < .05$), and higher pass-along behavior ($M_{\text{high*positive}} = 4.48$ versus $M_{\text{high*negative}} = 2.31$; $F_{(1, 124)} = 95.77$, $p < .05$) than the negative star rating did. In addition to that, participants having a low susceptibility to normative influence showed a more negative attitude toward the product exerted with the negative star rating ($M_{\text{low*negative}} = 2.12$) than the positive star rating ($M_{\text{low*positive}} = 3.54$; $F_{(1, 124)} = 47.23$, $p < .05$), and this pattern was found to be the same for the other five dependent measures (*purchase intention*: $M_{\text{low*positive}} = 3.40$ versus $M_{\text{low*negative}} = 1.99$; $F_{(1, 124)} = 54.16$, $p < .05$, *the evaluation of review*: $M_{\text{low*positive}} = 3.59$ versus $M_{\text{low*negative}} = 2.17$; $F_{(1, 124)} = 52.28$, $p < .05$, *perceived informativeness*: $M_{\text{low*positive}} = 3.61$ versus $M_{\text{low*negative}} = 2.21$; $F_{(1, 124)} = 43.13$, $p < .05$, *perceived helpfulness*: $M_{\text{low*positive}} = 3.75$ versus $M_{\text{low*negative}} = 2.18$; $F_{(1, 124)} = 58.17$, $p < .05$, and *pass-along behavior*: $M_{\text{low*positive}} = 3.76$ versus $M_{\text{low*negative}} = 2.22$; $F_{(1, 124)} = 53.54$, $p < .05$).

The second set of ANCOVAs including tests for the valence of star rating, perceived risk, informational influence, and the two- and three-way interactions among these variables on each dependent variable were performed. As seen in Table 5.6, the valence of star rating showed significant main effects on product attitude ($M_{\text{positive}} = 3.98$

versus $M_{\text{negative}} = 2.09$), purchase intention ($M_{\text{positive}} = 3.91$ versus $M_{\text{negative}} = 1.90$), the evaluation of review ($M_{\text{positive}} = 4.00$ versus $M_{\text{negative}} = 2.13$), perceived informativeness ($M_{\text{positive}} = 4.07$ versus $M_{\text{negative}} = 2.21$), perceived helpfulness ($M_{\text{positive}} = 4.12$ versus $M_{\text{negative}} = 2.23$), and pass-along behavior ($M_{\text{positive}} = 4.10$ versus $M_{\text{negative}} = 2.26$), as was the informational influence main effects on product attitude ($M_{\text{high}} = 3.18$ versus $M_{\text{low}} = 2.80$), purchase intention ($M_{\text{high}} = 3.01$ versus $M_{\text{low}} = 2.71$), and marginally significant main effect of informational influence on the evaluation of review ($M_{\text{high}} = 3.13$ versus $M_{\text{low}} = 2.91$). However, no significant main effects for the perceived risk on all six dependent variables were detected ($F_s < 3$).

More importantly, the results indicated a significant interaction effect between the valence of star rating and informational influence on product attitude ($F_{(1, 232)} = 8.19, p < .05$), purchase intention ($F_{(1, 232)} = 5.87, p < .05$), and the evaluation of review ($F_{(1, 232)} = 7.35, p < .05$). However, neither the valence of star rating x perceived social risk influence interaction nor perceived risk x informational influence was detected ($F_s < 1$). In addition, none of the three-way interaction was found ($F_s < 1$).

Dependent Variable	Factor	F-value	p-value
<i>Product Attitude</i>	Star rating	155.90	.001
	Perceived risk	1.60	.208
	Informational influence	7.64	.006
	Star rating x Perceived risk	.02	.881
	Star rating x Informational influence	8.19	.005
	Perceived risk x Informational influence	.07	.786
	Star rating x Perceived risk x Informational influence	.56	.454
<i>Purchase Intention</i>	Star rating	182.44	.001
	Perceived risk	2.93	.088
	Informational influence	5.10	.025
	Star rating x Perceived risk	.63	.428
	Star rating x Informational influence	5.87	.016
	Perceived risk x Informational influence	.85	.358
	Star rating x Perceived risk x Informational influence	.06	.816
<i>Evaluation of Review</i>	Star rating	177.01	.001
	Perceived risk	1.08	.301
	Informational influence	3.29	.071
	Star rating x Perceived risk	.13	.715
	Star rating x Informational influence	7.35	.007
	Perceived risk x Informational influence	.04	.847
	Star rating x Perceived risk x Informational influence	.02	.895
<i>Perceived Informativeness</i>	Star rating	127.82	.001
	Perceived risk	.72	.398
	Informational influence	2.51	.114
	Star rating x Perceived risk	.09	.764
	Star rating x Informational influence	2.15	.144
	Perceived risk x Informational influence	.01	.913
	Star rating x Perceived risk x Informational influence	.11	.745
<i>Perceived Helpfulness</i>	Star rating	124.79	.001
	Perceived risk	.01	.986
	Informational influence	2.73	.100
	Star rating x Perceived risk	.10	.757
	Star rating x Informational influence	1.02	.314
	Perceived risk x Informational influence	.03	.870
	Star rating x Perceived risk x Informational influence	.01	.942
<i>Pass-along Behavior</i>	Star rating	134.08	.001
	Perceived risk	.95	.331
	Informational influence	2.77	.097
	Star rating x Perceived risk	.19	.661
	Star rating x Informational influence	1.66	.199
	Perceived risk x Informational influence	.04	.853
	Star rating x Perceived risk x Informational influence	.08	.783

Table 5.6: Univariate Analysis of Covariance Results (Informational Influence)

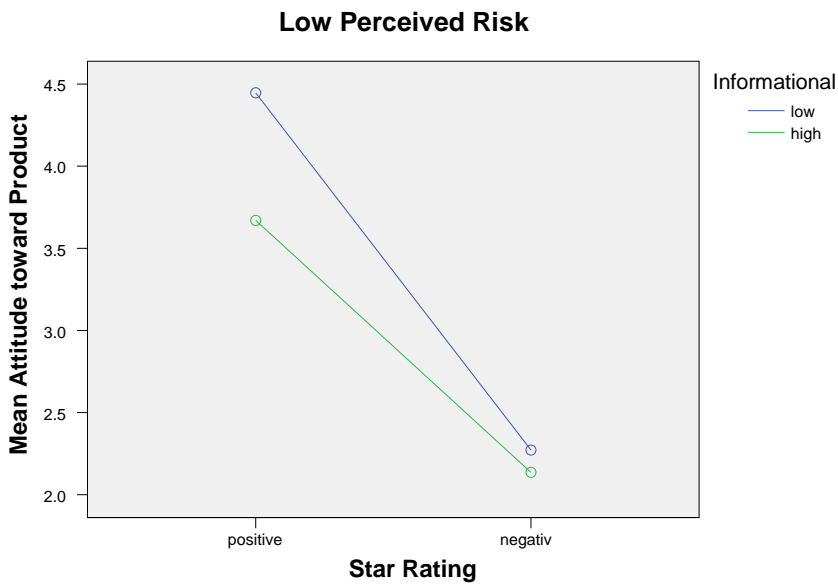
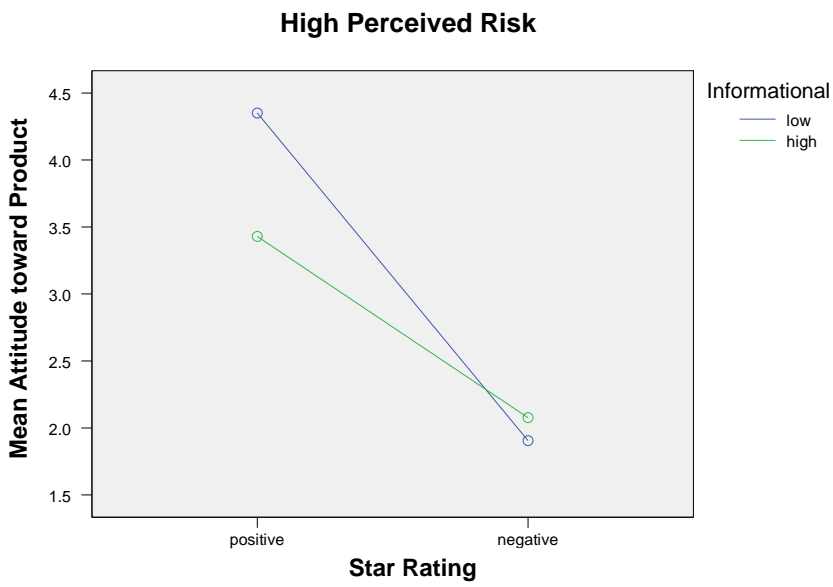


Figure 5.19: Mean attitude toward a product by valence of star rating, perceived risk, and informational influence

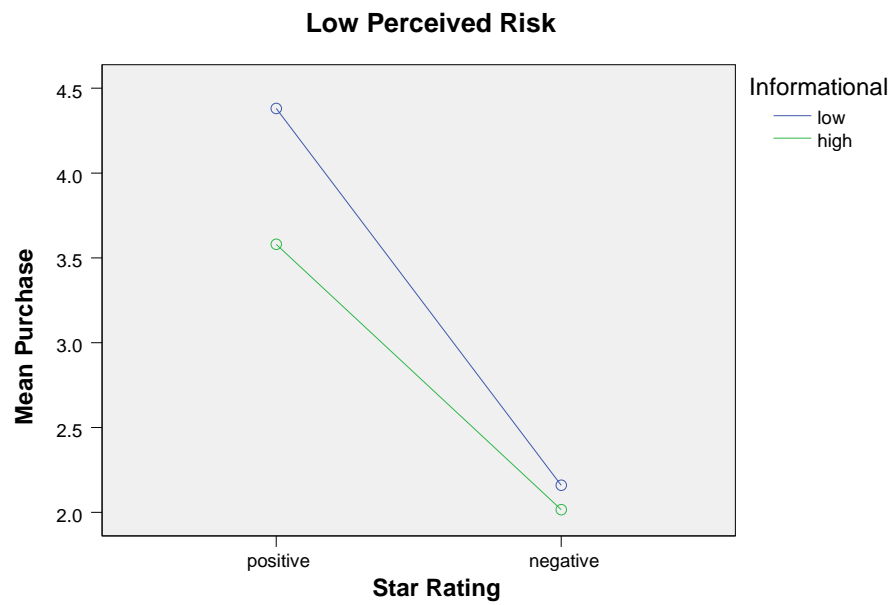


Figure 5.20: Mean purchase intention by valence of star rating, perceived risk, and informational influence

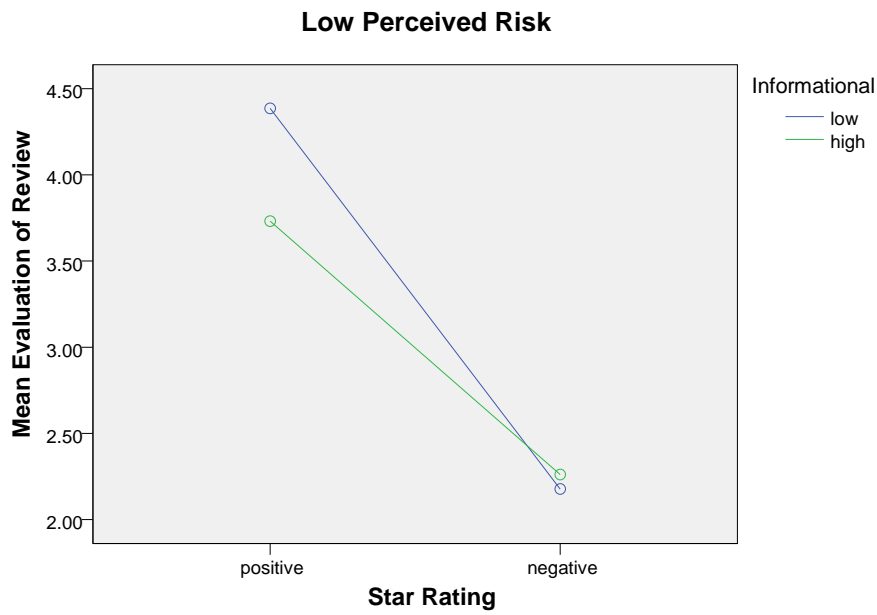
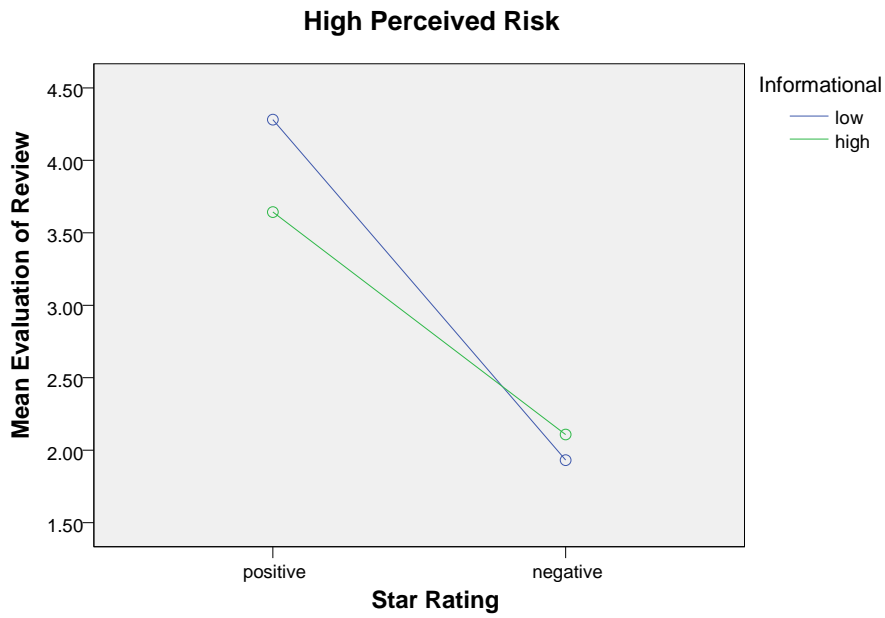


Figure 5.21: Mean evaluation of review by valence of star rating, perceived risk, and informational influence

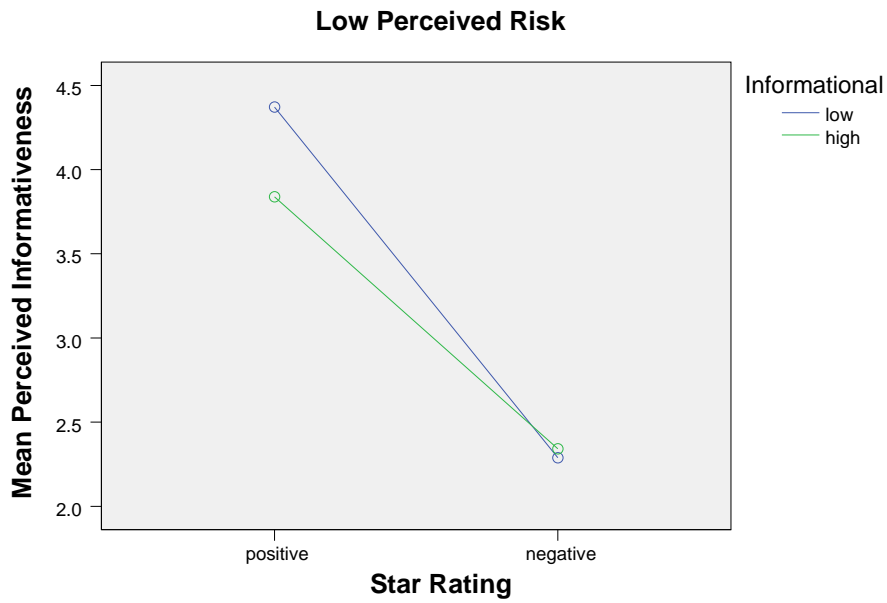
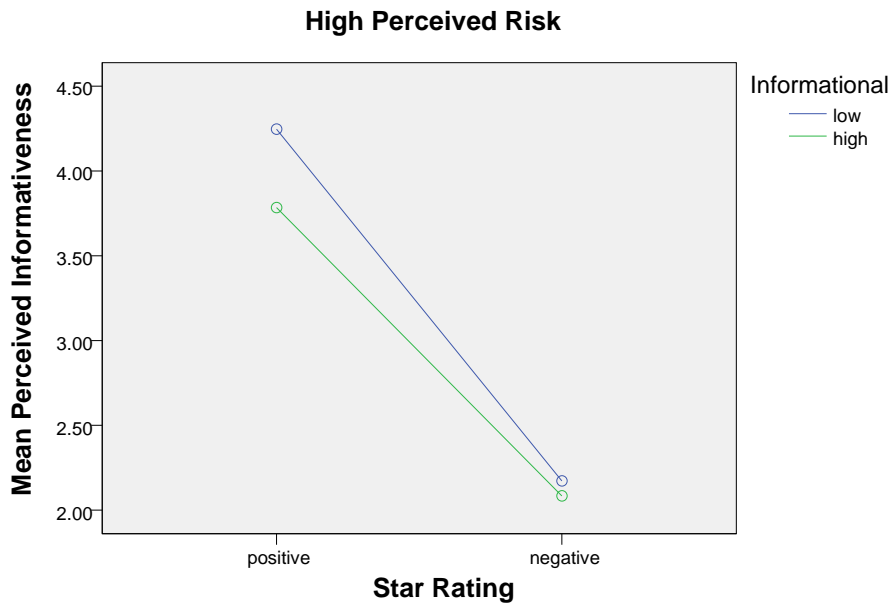


Figure 5.22: Mean perceived informativeness by valence of star rating, perceived risk, and informational influence

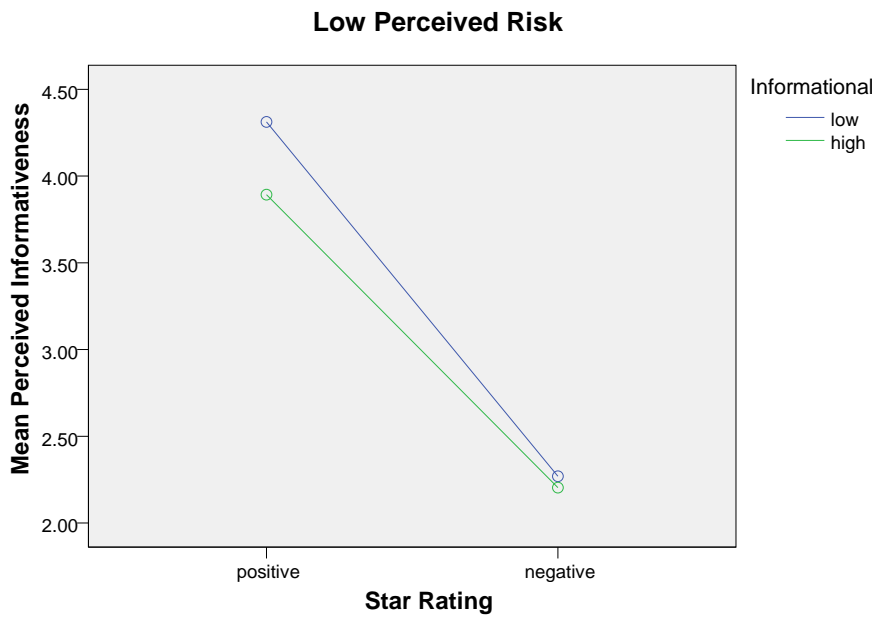
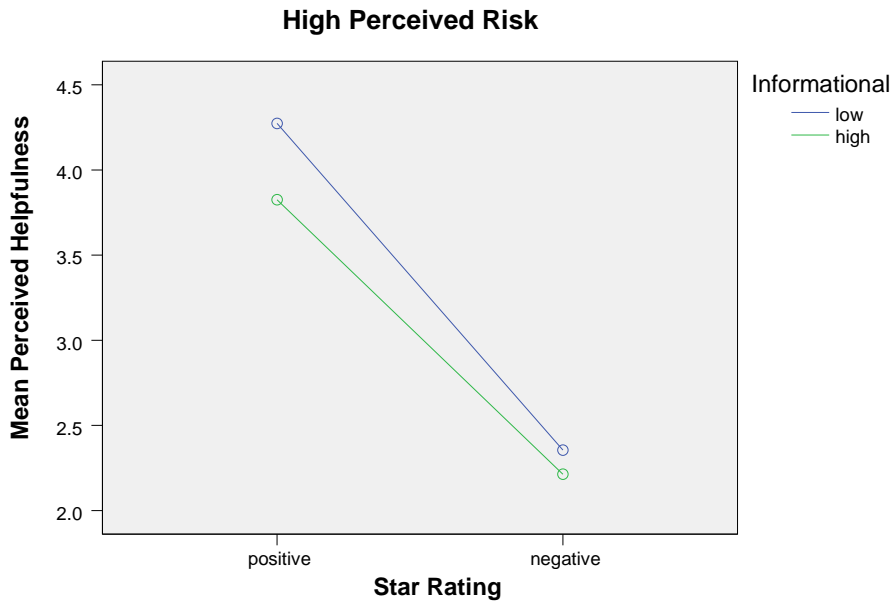


Figure 5.23: Mean perceived helpfulness by valence of star rating, perceived risk, and informational influence

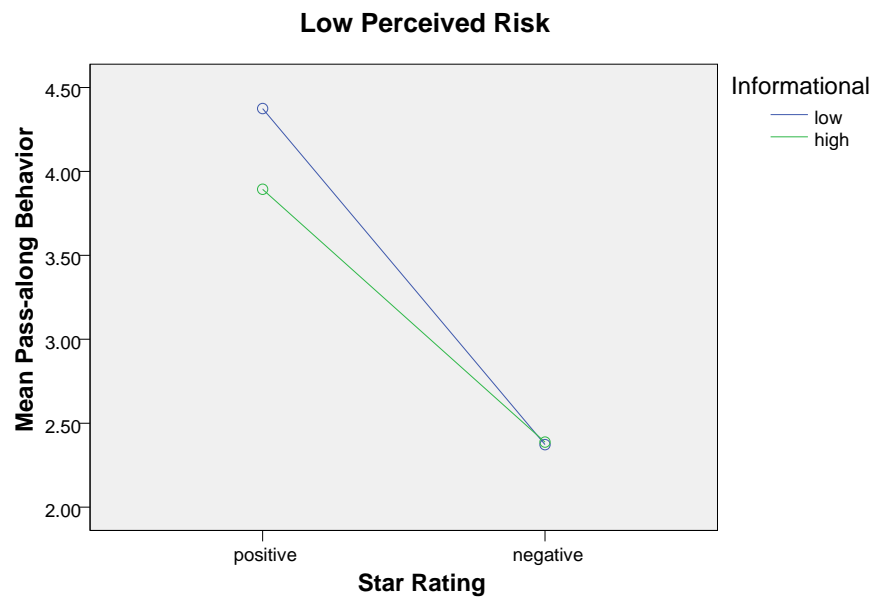
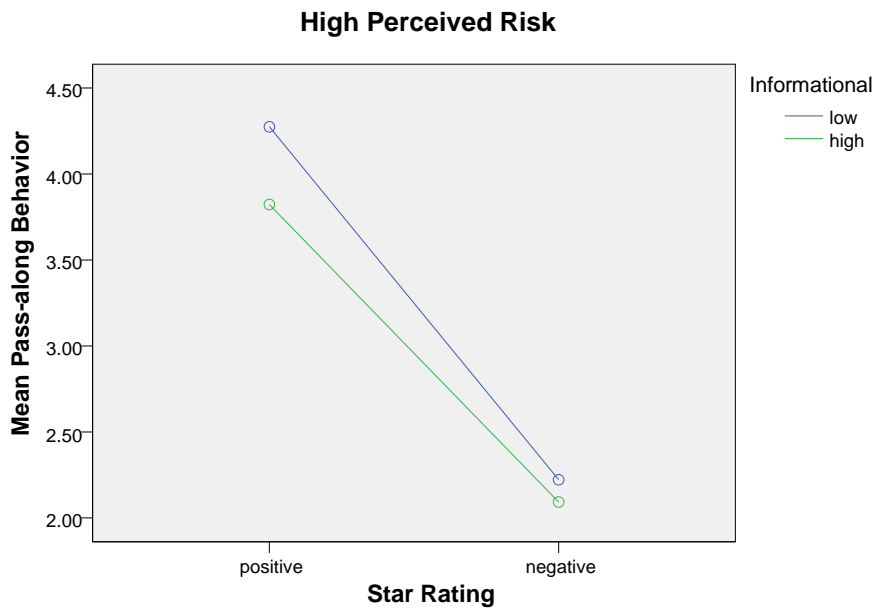


Figure 5.24: Mean pass-along behavior by valence of star rating, perceived risk, and informational influence

To further examine the valence of star rating x informational influence interaction, orthogonal planned contrast analyses were conducted. For participants having a high susceptibility to informational influence, the high perceived social risk induced a higher positive attitude toward the product ($M_{\text{high*positive}} = 4.42$) than the low perceived social risk did ($M_{\text{high*negative}} = 2.10$; $F_{(1, 120)} = 127.99, p < .05$), as did also yield higher purchase intention ($M_{\text{high*positive}} = 4.29$ versus $M_{\text{high*negative}} = 1.89$; $F_{(1, 120)} = 154.47, p < .05$), positive evaluation of the review ($M_{\text{high*positive}} = 4.32$ versus $M_{\text{high*negative}} = 2.08$; $F_{(1, 120)} = 156.46, p < .05$), higher perceived informativeness ($M_{\text{high*positive}} = 4.35$ versus $M_{\text{high*negative}} = 2.23$; $F_{(1, 120)} = 95.64, p < .05$), higher perceived helpfulness ($M_{\text{high*positive}} = 4.39$ versus $M_{\text{high*negative}} = 2.28$; $F_{(1, 120)} = 91.17, p < .05$), and higher pass-along behavior ($M_{\text{high*positive}} = 4.37$ versus $M_{\text{high*negative}} = 2.28$; $F_{(1, 120)} = 107.24, p < .05$) than the low perceived social risk did. In addition to that, participants having a low susceptibility to informational influence showed a more negative attitude toward the product exerted with the negative star rating ($M_{\text{low*negative}} = 2.09$) than the positive star rating ($M_{\text{low*positive}} = 3.55$; $F_{(1, 119)} = 47.40, p < .05$), and this pattern was found to be the same for other five dependent measures (*purchase intention*: $M_{\text{low*positive}} = 3.55$ versus $M_{\text{low*negative}} = 1.91$; $F_{(1, 119)} = 54.73, p < .05$, *the evaluation of review*: $M_{\text{low*positive}} = 3.69$ versus $M_{\text{low*negative}} = 2.18$; $F_{(1, 119)} = 50.73, p < .05$, *perceived informativeness*: $M_{\text{low*positive}} = 3.79$ versus $M_{\text{low*negative}} = 2.20$; $F_{(1, 119)} = 46.64, p < .05$, *perceived helpfulness*: $M_{\text{low*positive}} = 3.83$ versus $M_{\text{low*negative}} = 2.17$; $F_{(1, 119)} = 49.38, p < .05$, and *pass-along behavior*: $M_{\text{low*positive}} = 3.84$ versus $M_{\text{low*negative}} = 2.25$; $F_{(1, 119)} = 46.48, p < .05$).

Chapter 6: Discussion

Marketing and advertising practitioners need to understand the effect online consumer reviews, one type of eWOM communication, have on the consumer product purchase decision-making process. As online peer consumer reviews have become a popular source of product-related information, consumers have become more reliant on these reviews for making purchase decisions (Ba & Pavlou, 2002; Chevalier & Mayzlin, 2006; Clemons, Gao, & Hitt, 2006). However, consumers' reliance on peer consumer reviews has led to an increased number of consumer reviews on retailer sites, and the excessive number of reviews creates eWOM overload due to lengthy content, conflicting information, and difficulty finding valuable information in the enormous number of reviews (Park & Lee, 2008). One obvious conclusion is the need for a system that can efficiently sort helpful reviews, so consumers are able to make informed decision more easily.

Recent online consumer review studies suggest that numeric cues, such as summary ratings, reviewer credibility ratings, the number of consumers who have read a review, and the number of people who found the review to be helpful, can be efficient sources of information used to identify valuable reviews (e.g., Dabholkar, 2006; Mudambi & Schuff, 2010; Poston & Speier, 2005). However, numeric review cues are an understudied area, so this study investigated the potential of numeric review cues, especially summary ratings, to identify how consumers process these cues in relation to their evaluation of review quality and their decision-making process.

The main premise of this study is that consumers systematically process product information online via peer consumer reviews, and consumers' dependency on reviews depends on their susceptibility to interpersonal influence and the perceived risk inherent

in the product purchase. Two experiments were conducted to test this premise, and the quantitative results for both studies were presented in the previous chapter illustrating how each hypothesis was either supported or not. This chapter summarizes and concludes this discourse by reviewing the key findings of two empirical investigations, discussing the implications and contributions of the finding to online retail discipline, presenting the limitations of the study, and by suggesting possible directions for future study.

SUMMARY OF FINDINGS

The central tenet of this study was that the consumer's susceptibility to interpersonal influence is associated with the consumer's evaluation of peer consumer reviews driven by summary ratings. This hypothesis received partial empirical support in Study 1. In line with expectations, the results of Study 1 demonstrated that the valence of summary rating has a significant influence on consumers' evaluations of online consumer reviews and reviewed products. The most important and most interesting finding of this study is that normative influence plays an important role in determining the valence of summary rating (negative versus positive) within the context of online consumer reviews. Specifically, consumers who are highly susceptible to normative influence had a more favorable attitude toward the peer consumer reviews and reviewed products when they read the positive summary rating review, and they tended to avoid the reviews and the reviewed products when exposed to online consumer reviews with negative summary ratings. Meanwhile, consumers low on susceptibility to normative influence did not much change or compose their evaluations of the review and reviewed product based on peer consumers' opinions.

This study also found that while normative influence is an important factor in the valence of summary rating effects on consumer evaluations of online consumer reviews and reviewed products, informational influence does not play a significant role in the evaluation of the review and reviewed product based on peer consumers' opinions. However, the main effect of informational influence was detected, which means that consumers highly susceptible to informational influence tend to evaluate the review and reviewed product more positively than those who are low on susceptibility to informational influence.

Previous research has found that individuals more susceptible to normative influence try to conform to the expectations of others, and that normative pressure operates in group or public settings (Kassarjian & Robertson, 1981; Moscovici, 1985). For users of online consumer review sites, who mostly are potential consumers, reviews deliver peer consumers' normative beliefs and values about a product by indicating whether they like or dislike the product, and summary ratings such as star rating present their normative beliefs in a concise manner. Therefore, summary ratings lead potential consumers who are highly susceptible to interpersonal influence to align their brand preference and purchase decisions with those of peer consumers who have already purchased the product and with their expectations and evaluations of the product purchase.

In addition, individuals who are more amenable to informational influence accept information from others as evidence of reality that enables them to make informed decisions (Deutsch & Gerard, 1955). Consumers who are highly susceptible to informational influence value the informational aspect of online consumer reviews and collect all available information to generate the most informed decision. Vast amounts of online consumer reviews satisfy consumers who are highly susceptible to informational

influence, as this leads to an informed purchase decision, which in turn leads to positive evaluations of online consumer reviews and reviewed products. Those highly susceptible to informational influence tend to gather valuable information about products and services from the knowledge of others, and they do not necessarily encourage their desire to refer to the summary rating system. This is possibly because they seek other relatively formal information channels and more reliable sources of information, such as experts' reviews or longer reviews that include more rationale than summary ratings when making purchase decisions.

Another focus of this study, which I tried to address in Study 2, was whether perceived risks can affect the positive or negative evaluation of online consumer reviews relative to consumer susceptibility to interpersonal influence. This postulation did not receive empirical support in Study 2. This is possibly because of the failure to detect a three-way interaction among the characteristics of online consumer reviews and consumers who seek peer consumers' evaluations. According to Cunningham (1967), consumers' perceived risk in purchase situations is a function of two components: consumers' level of uncertainty and the importance of the buying goal. When consumers are actively engaged in product information research, the reduction of purchase uncertainty is obtained through the integration of product information into the consumer's cognitive structure, which leads to the reduction of perceived risk (Lutz & Reilly, 1974). At online venues, vast amounts of information are provided via online consumer reviews, so consumers, regardless of whether they are in high or low perceived risk situations, are already exposed to enough information to reduce uncertainty about the product. Therefore, as consumers engage in information seeking before purchasing a product or service to reduce the perceived risk, other key determinants such as consumer characteristics play an important role in the decision-making process.

IMPLICATIONS AND CONTRIBUTIONS

Based on the findings of this study, there are several theoretical contributions to the field. The foremost theoretical contribution of this study is the creation of a theoretical framework to understand the context of online consumer reviews and review ratings. Although little research, if any, has examined multistage product information processing, the findings of this study have provided convergent evidence that consumers systematically process online consumer reviews. Research has not been conducted on numeric cues or the online review context. Through the application of the paradigm of susceptibility to interpersonal influence, this study offers a conceptualization of what contributes to the evaluation of peer consumer reviews and product information processing in the multistage consumer decision-making process. In addition, by employing the application of the personal factor, susceptibility to interpersonal influence, and the situational factor, perceived risk of purchase, this study further investigates which factor contributes more to attitude and behavior toward online reviews and reviewed brands.

Another notable finding of this study is related to information overload/eWOM overload. eWOM overload occurs when available information exceeds the consumers' capacity to process it, eventually leading to negative feelings and a decrease in the perceived informativeness of the review information set (Park & Lee, 2008). To help with eWOM overload, online retailers have used tools such as numeric cues, summarized information, and standardized review formats. However, it has not been studied whether numeric cues in the online consumer review context can reduce cognitive fatigue and serve as a systematical process for online product information processing. The findings of

this study indicate that numeric cues, especially summary ratings, are an effective mechanism for gauging essential product information from online consumer reviews.

From a managerial perspective, this study also has implications for practitioner audiences on several fronts. The findings of this study can boost online retailers' understanding of the role of online reviews that play a part in the consumer's purchase decision process. The results of this study can be used to develop guidelines for creating online reviews that are more valuable. These guidelines can overcome eWOM overload and can offer personalized marketing communications to each individual consumer.

Although online retailers cannot selectively filter online consumer reviews to manipulate quality and quantity, retailers can control the presentation of consumer reviews to peer consumers. For example, online retailers use personal information such as susceptibility to interpersonal influence based on what consumers input when registering membership to provide personalized reviews. Since each consumer has a different evaluation scheme based on their level of susceptibility to interpersonal influence, online retailers can meet their information needs by providing personalized reviews. For instance, when targeting highly susceptible and interpersonal influence consumers, employing eWOM marketing could be a good online communication technique between consumers and online retailers.

Furthermore, to reduce the eWOM overload phenomena and to offer consumers a systematic review system, online retailers can use the summary information strategy. The findings of this study offer a strong rationale for the use of summary information systems such as star rating in online consumer reviews.

LIMITATIONS AND FUTURE RESEARCH

As with other studies, this study has limitations that should be addressed in future research. Although different product categories and brands were used in the two experiments, with the intention of making the findings more generalizable, the product categories employed in this study are limited to search goods, in which consumers are encouraged to provide as much depth or detail about the product as possible. According to Mudambi and Schuff (2010), the type of product category (search or experience) affects consumers' product information research and evaluation of the product, and actually yields different information search procedures and decision-making processes. Therefore, further research could address this limitation and identify the degree of generalizability of study findings with a larger set of product categories.

Another limitation of this study, as well as a possible area for future research, is that this study examined a limited set of numeric cues. While this study only focuses on star ratings, other possible contributing cues such as reviewer credibility and votes for helpfulness could influence consumers' evaluation of peer consumer reviews and reviewed products. Therefore, future studies that explore these understudied areas may contribute to the field.

Within the scope of online consumer reviews, future studies should focus on the surge of mobile retailing. With the increase in the use of smartphones, and approximately 100 million users in the U.S. in 2011, mobile retail activities are increasing exponentially (Gian & Lipsman, 2012). Reflecting this surging phenomenon, future research could explore how the mobile retailing environment transforms the format of numeric cues and how consumers process product information via mobile retailing, which is different from computer-oriented environment in terms of readability and legibility.

Appendix A: Stimulus Vignettes for Study 1

POSITIVE STAR RATING CONDITION

The screenshot shows the CNET website interface for a product review. The header includes the CNET logo and navigation links for Reviews, News, Download, CNET TV, and How To. The breadcrumb trail is CNET > Reviews > Cell Phones > User Reviews. The product title is "Alpha, The New Generation". Below the title is a navigation bar with links for Review, User Reviews, Specs, Check Coverage, Compare, and Shop. The main content area features a "User Reviews" section with an average user rating of 4.5/5.0, represented by four and a half red stars. It also indicates that the user has not rated the product yet and provides a "Write review" button. Below this, there are filters for "Full reviews", "Pros Only", and "Cons Only". The results section shows "Results 1 of 704" with a pagination bar. The first result is dated "On April 29, 2012 by Hendrick6G". It lists "Pros" (Screen size and resolution, Customizable, Fast processor, Various options for picture adjustments) and "Cons" (No USB mass storage and micro SD slot, No gorilla glass, Short battery life, Low-volume external speaker). A "Summary" follows, stating that the phone is an okay device with some improvements still needed. At the bottom, there is another "Results 1 of 704" pagination bar and a footer with social media links for Facebook (25% Like) and Twitter (Follow @CNET).

NEGATIVE STAR RATING CONDITION

The screenshot shows the CNET website interface for a product review. The header includes the CNET logo and navigation links for Reviews, News, Download, CNET TV, and How To. The breadcrumb trail is CNET > Reviews > Cell Phones > User Reviews. The product title is "Alpha, The New Generation". Below the title is a navigation bar with links for Review, User Reviews, Specs, Check Coverage, Compare, and Shop. The main content area features a "User Reviews" section with an average user rating of 1.0/5.0, represented by one red star and four black stars. It also indicates that the user has not rated the product yet and provides a "Write review" button. Below this, there are filters for "Full reviews", "Pros Only", and "Cons Only". The results section shows "Results 1 of 704" with a pagination bar. The first result is dated "On April 29, 2012 by Hendrick6G". It lists "Pros" (Screen size and resolution, Customizable, Fast processor, Various options for picture adjustments) and "Cons" (No USB mass storage and micro SD slot, No gorilla glass, Short battery life, Low-volume external speaker). A "Summary" follows, stating that the phone is an okay device with some improvements still needed. At the bottom, there is another "Results 1 of 704" pagination bar and a footer with social media links for Facebook (25% Like) and Twitter (Follow @CNET).

Appendix B: Measurement Items for Study 1

Interpersonal Influence

(1= “strongly disagree”, 7= “strongly agree”)

Normative

1. I rarely purchase the latest fashion styles until I am sure my friends approve of them.
2. It is important that others like the products and brands I buy.
3. When buying products, I generally purchase those brands that I think others will approve of.
4. If other people can see me using a product, I often purchase the brand they expect me to buy.
5. I like to know what brands and products make good impressions on others.
6. I achieve a sense of belonging by purchasing the same products and brands that others purchase.
7. If I want to be like someone, I often try to buy the same brands that they buy.
8. I often identify with other people by purchasing the same products and brands they purchase.

Informational

1. To make sure I buy the right product or brand, I often observe what others are buying and using.
2. If I have little experience with a product, I often ask my friends about the product.
3. I often consult other people to help me choose the best alternative available from a product class.
4. I frequently gather information from friends or family about a product before I buy.

Dependent Variables

Consumers’ Perception of the Review

(1= “strongly disagree”, 7= “strongly agree”)

1. The consumer review positively evaluates the product.
2. The consumer review negatively evaluates the product. (r)
3. In general, the consumer review recommends the product.

Perceived Informativeness of Review

(1= “strongly disagree”, 7= “strongly agree”)

1. The review is informative.
2. The review helps me understand the product.
3. The review is useful for understanding the product.
4. The review offers necessary information about the product.

Perceived Helpfulness of Review

(7 points semantic-differential)

In general, the review is:

1. not useful/useful
2. not helpful/helpful
3. not informative/informative

Product Attitude

(7 points semantic-differential)

The smartphone in the review is:

1. bad/good
2. unsatisfactory/satisfactory
3. unfavorable/favorable

Purchase Intention

(1= “strongly disagree”, 7= “strongly agree”)

1. I will probably try the product described in the review.
2. It is possible that I will purchase the product described in the review.
3. It is likely that I will buy the product described in the review.

Pass-along Intention

(1= “strongly disagree”, 7= “strongly agree”)

1. I am willing to pass on information about the smartphone described in the review to my online friends (e.g., social networks sites, email).
2. I like to pass along the review that I just saw to my online friends (e.g., social networks sites, email).
3. If I received this review from my friends, I would pass the review along to my other online friends (e.g., social networks sites, email).
4. If I received this review from my friends, I would pass the information about the smartphone along to my other online friends (e.g., social networks sites, email).

Manipulation Check**Valence of Summary Rating**

(7 points semantic-differential)

How would you describe the star rating that indicates the average user ratings of the “Alpha” smartphone?

1. negative/positive
2. unfavorable/favorable

Covariates**Self-rated Product Knowledge**

(1= “strongly disagree”, 7= “strongly agree”)

1. I feel very knowledgeable about smartphones.
2. If a friend asked me about a smartphone, I could give him or her advice about different brands.
3. If I had to purchase a smartphone today, I would need to gather very little information in order to make a wise decision.
4. I feel very confident about my ability to tell the difference in quality among different brands of smartphones.

eWOM Familiarity

(7 points semantic-differential)

Regarding eWOM information, I am:

1. unfamiliar/familiar
2. inexperienced/experienced
3. not knowledgeable/knowledgeable

Prior Online Purchase Experience

(1= “strongly disagree”, 7= “strongly agree”)

1. I am experienced with online product purchases.
 2. I feel competent in purchasing products online.
 3. I feel comfortable in purchasing products online.
 4. I feel that the online retailer site for purchasing products is easy to use.
-
-

Appendix C: Questionnaire for Study 1

Consumers' Online Product Review Study

Thank you for your interest in this study of an online consumer review. The purpose of this study is to understand consumers' evaluation of online consumer reviews, and their attitudinal and behavioral responses to the review as well as to the product reviewed.

You will be asked to read one online consumer review about a smartphone out of 704 reviews posted at Cnet.com. Please take a moment to read the review carefully and give answers that you consider to be most appropriate.

Section A.

This section is to understand your feelings and opinions about "Alpha," a recently launched smartphone described in the review that you just saw. We are also interested in learning your thoughts on the review.

A1. Product Attitude

Please indicate how you feel about the new smartphone, "Alpha" by clicking the answers that best represent your feelings. (7-point scale)

The smartphone in the review is...

1. bad/good
2. unsatisfactory/satisfactory
3. unfavorable/favorable

A2. Purchase Intention

The following statements describe the likelihood that you will purchase an "Alpha" smartphone in the future. Please indicate the extent to which you agree or disagree with each of the statements.

(7-point scale with Strongly Disagree/Strongly Agree)

1. I will probably try the product described in the review.
2. It is possible that I will purchase the product described in the review.
3. It is likely that I will buy the product described in the review.

A3. Review Valence

The following statements describe your perception of the online consumer review that you just saw. Please indicate the extent to which you agree or disagree with each statement.

(7-point scale with Strongly Disagree/Strongly Agree)

1. The consumer review positively evaluates the product.
2. The consumer review negatively evaluates the product. (r)
3. In general, the consumer review recommends the product.

*(r) – reverse coded

A4. Perceived Informativeness

The following statements describe your evaluation of the online consumer review that you just saw. Please indicate the extent to which you agree or disagree with each statement.

(7-point scale with Strongly Disagree/Strongly Agree)

1. The review is informative.
2. The review helps me understand the product.
3. The review is useful for understanding the product.
4. The review offers necessary information about the product.

A5. Perceived Helpfulness

Please indicate how you feel about the review in terms of its helpfulness to you. (7-point scale)

In general, the review is....

1. not useful/useful
2. not helpful/helpful
3. not informative/informative

A6. Pass-along Behavior

Below are statements about your intention to pass-along information about the “Alpha” smartphone. Please indicate the extent to which you agree or disagree with each of the statements.

(7-point scale with Strongly Disagree/Strongly Agree)

1. I am willing to pass on information about the smartphone described in the review to my online friends (e.g., social networks sites, email).
2. I like to pass along the review that I just saw to my online friends (e.g., social networks sites, email).
3. If I received this review from my friends, I would pass the review along to my other online friends (e.g., social networks sites, email).
4. If I received this review from my friends, I would pass the information about the smartphone along to my other online friends (e.g., social networks sites, email).

Section B.

In this section, we are interested in your personality traits. Please describe the extent to which each of the following statements describes your perception/attitudes/feelings. (7-point scale with Strongly Disagree/Strongly Agree)

1. I rarely purchase the latest fashion styles until I am sure my friends approve of them.
2. It is important that others like the products and brands I buy.
3. When buying products, I generally purchase those brands that I think others will approve of.
4. If other people can see me using a product, I often purchase the brand they expect me to buy.
5. I like to know what brands and products make good impressions on others.
6. I achieve a sense of belonging by purchasing the same products and brands that others purchase.
7. If I want to be like someone, I often try to buy the same brands that they buy.
8. I often identify with other people by purchasing the same products and brands they purchase.
9. To make sure I buy the right product or brand, I often observe what others are buying and using.
10. If I have little experience with a product, I often ask my friends about the product.
11. I often consult other people to help me choose the best alternative available from a product class.
12. I frequently gather information from friends or family about a product before I buy.

Section C.

This section helps us to understand reaction to the online consumer review that you just saw. (7-point scale)

C1. From the review you just saw, how would you describe the star rating that indicates the average user ratings of the “Alpha” smartphone?

1. negative/positive
2. unfavorable/favorable

C2. What was the numeric rating that is equivalent to the star rating you saw? For example, 3.1 out of 5.0. Please provide a number that you think accurately reflects the star rating you saw.
_____ out of 5.0

Section D.

This section helps us to learn more about your knowledge, communication, and experience.

D1. Below is a list of statements that may describe your knowledge about smartphones in general. Please indicate the extent to which you agree or disagree with each statement.
(7-point scale with Strongly Disagree/Strongly Agree)

1. I feel very knowledgeable about smartphones.
2. If a friend asked me about a smartphone, I could give him or her advice about different brands.
3. If I had to purchase a smartphone today, I would need to gather very little information in order to make a wise decision.
4. I feel very confident about my ability to tell the difference in quality among different brands of smartphones.

D2. Can you tell us about your electronic word of mouth (eWOM) experiences? (7-point scale)

Regarding eWOM, I am...

1. unfamiliar/familiar
2. inexperienced/experienced
3. not knowledgeable/knowledgeable

D3. Below is a list of statements that may describe your online purchase experience. Please indicate the extent to which you agree or disagree with each statement.

(7-point scale with Strongly Disagree/Strongly Agree)

1. I am experienced with online product purchases.
2. I feel competent in purchasing products online.
3. I feel comfortable in purchasing products online.
4. I feel that the online retailer site for purchasing products is easy to use.

Section E.

In order for us to analyze the data obtained from this study, we need to aggregate answers along some characteristics of respondents. Your answers to the following questions will assist us to do so.

E1. Have you read an online consumer review in the last 6 months?
Yes () No ()

E1-a. (for only those of who said 'yes' on E1) On average, approximately how many online consumer reviews do you

usually read before purchasing a product? _____

E1-b. (for only those of who said 'yes' on E1) To what extent do online consumer reviews affect your purchase intent of a product?

Very unlikely (1)----(2)----(3)----(4)----(5)----(6)----(7) Very likely

E1-c. (for only those of who said 'yes' on E1) What elements do you think are important when reading online consumer reviews? Please check all that apply.

- 1) Review length
- 2) Review quality
- 3) Reviewer credibility
- 4) Website credibility
- 5) Average summary rating
- 6) Individual rating
- 7) Number of votes on helpfulness/informativeness of the review

E2. How long has it been since you had your first cell phone (or smartphone)?

_____ year(s) _____ month(s)

E3. On average, approximately how long do you spend on a cell phone (or smartphone) per day?

_____ hour(s) _____ minute(s)

E4. Do you use a smartphone?

Yes () No ()

E4-a. (for only those of who said 'yes' on E3) What types of functions do you usually use via your smartphone (e.g., game, email check, social networking, text etc.)? Please give us top three functions that you use most.

1. _____
2. _____
3. _____

E4-b. (for only those of who said 'yes' on E3) On average, approximately how many minutes per day do you spend on the following activities?

- 1) Social networking (e.g., Facebook, Twitter, LinkedIn etc.) _____
- 2) Texting _____
- 3) Voice call _____
- 4) Game _____
- 5) Checking emails _____
- 6) Web-surfing _____
- 7) Others _____

E5. What is your gender? (Please check one)

Male () Female ()

E6. What is your age? _____

E7. What ethnicity would you classify yourself as? (Please check one)

- 1) Caucasian
- 2) African American
- 3) Asian
- 4) Hispanic
- 5) Pacific Islander
- 6) Native American
- 7) Other (*please specify*) _____

E8. What is your highest education level? (Please check one)

1. High school or equivalent
2. Vocational/technical school (2 years)
3. Some college
4. College graduate (4 years)
5. Master's degree
6. Doctoral degree
7. Professional degree (MD, JD, etc.)
8. Other

E9. What is your marital status? (Please check one)

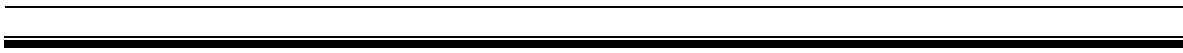
1. Single
2. Married
3. Divorced
4. Living with someone
5. Separated
6. Widowed
7. Other

E10. What is your last year's annual Household income level? (Please check one)

1. Under \$10,000
2. \$10,000-\$19,999
3. \$20,000-\$29,999
4. \$30,000-\$39,999
5. \$40,000-\$49,999
6. \$50,000-\$74,999
7. \$75,000-\$99,999
8. Over \$100,000
9. Other

E11. How many HITs have you done today?

Thank you!



Appendix D: Stimulus Vignettes for Study 2

POSITIVE STAR RATING CONDITION

CNET > Reviews > eBook Readers > User Reviews

Omega, The New Generation

user reviews

Review User Reviews Specs Check Coverage Compare Shop

User Reviews

Average user rating:

★★★★★ 4.5 / 5.0

out of 704 reviews

Back to product review

My rating: you have not rated this yet

Write review

Show: Full reviews Pros Only Cons Only

Results 1 of 704

On May 29, 2012 by Hendrick6G

Pros:

- Easy user interface
- Tons of applications via application stores
- Vivid and snappy video playback
- Comfortable portability

Cons:

- No external volume buttons
- Unresponsive touchscreen
- Not great for outdoor reading due to lack of 3G
- Little on-board storage

Summary:

Overall, Omega is an okay electronic book-reader. You'll get what you've paid for. This is not a full-on tablet computer, although it has many of the features that people look for in one. It has made some improvements, but the limits of the device still might make people expect some additions in later versions. Overall, this is the most moderate handheld device that I have ever owned.

Results 1 of 704

Recently Viewed Products My Lists My Software Updates Like 757k Follow @CNET

NEGATIVE STAR RATING CONDITION

CNET > Reviews > eBook Readers > User Reviews

Omega, The New Generation

user reviews

Review User Reviews Specs Check Coverage Compare Shop

User Reviews

Average user rating:

★☆☆☆☆ 1.0 / 5.0

out of 704 reviews

Back to product review

My rating: you have not rated this yet

Write review

Show: Full reviews Pros Only Cons Only

Results 1 of 704

On May 29, 2012 by Hendrick6G

Pros:

- Easy user interface
- Tons of applications via application stores
- Vivid and snappy video playback
- Comfortable portability

Cons:

- No external volume buttons
- Unresponsive touchscreen
- Not great for outdoor reading due to lack of 3G
- Little on-board storage

Summary:

Overall, Omega is an okay electronic book-reader. You'll get what you've paid for. This is not a full-on tablet computer, although it has many of the features that people look for in one. It has made some improvements, but the limits of the device still might make people expect some additions in later versions. Overall, this is the most moderate handheld device that I have ever owned.

Results 1 of 704

Recently Viewed Products My Lists My Software Updates Like 757k Follow @CNET

Appendix E: Priming Scenarios for Study 2

[HIGH PERCEIVED RISK]

Please imagine that you need to purchase an electronic book reader (e-book reader) for your business partner. He is a very important person for your career, and he has helped you in various ways to improve your career performance. You have decided to give him a thank-you present for his help, and you have selected an e-book reader because you want the gift to be memorable for him and notice that he would need one.

Reflecting this situation, you will be asked to read one online consumer review out of 704 reviews about a new e-book reader posted at Cnet.com. Please take a moment to read the review carefully and give answers that you consider to be most appropriate.

[LOW PERCEIVED RISK]

Please imagine that you need to purchase an electronic book reader (e-book reader) for yourself. You will use the device for reading e-books during your spare time. However, as you have various alternative ways to read books rather than only using an e-book reader, you have decided to purchase the device just for fun.

Reflecting this situation, you will be asked to read one online consumer review out of 704 reviews about a new e-book reader posted at Cnet.com. Please take a moment to read the review carefully and give answers that you consider to be most appropriate.

Appendix B: Measurement Items for Study 2

Interpersonal Influence

(1= “strongly disagree”, 7= “strongly agree”)

Normative

1. I rarely purchase the latest fashion styles until I am sure my friends approve of them.
2. It is important that others like the products and brands I buy.
3. When buying products, I generally purchase those brands that I think others will approve of.
4. If other people can see me using a product, I often purchase the brand they expect me to buy.
5. I like to know what brands and products make good impressions on others.
6. I achieve a sense of belonging by purchasing the same products and brands that others purchase.
7. If I want to be like someone, I often try to buy the same brands that they buy.
8. I often identify with other people by purchasing the same products and brands they purchase.

Informational

1. To make sure I buy the right product or brand, I often observe what others are buying and using.
2. If I have little experience with a product, I often ask my friends about the product.
3. I often consult other people to help me choose the best alternative available from a product class.
4. I frequently gather information from friends or family about a product before I buy.

Dependent Variables

Consumers’ Perception of the Review

(1= “strongly disagree”, 7= “strongly agree”)

1. The consumer review positively evaluates the product.
2. The consumer review negatively evaluates the product. (r)
3. In general, the consumer review recommends the product.

Perceived Informativeness of Review

(1= “strongly disagree”, 7= “strongly agree”)

1. The review is informative.
2. The review helps me understand the product.
3. The review is useful for understanding the product.
4. The review offers necessary information about the product.

Perceived Helpfulness of Review

(7 points semantic-differential)

In general, the review is:

1. not useful/useful
2. not helpful/helpful
3. not informative/informative

Product Attitude

(7 points semantic-differential)

The e-book reader in the review is:

1. bad/good
2. unsatisfactory/satisfactory
3. unfavorable/favorable

Purchase Intention

(1= “strongly disagree”, 7= “strongly agree”)

1. I will probably try the product described in the review.
2. It is possible that I will purchase the product described in the review.
3. It is likely that I will buy the product described in the review.

Pass-along Intention

(1= “strongly disagree”, 7= “strongly agree”)

1. I am willing to pass on information about the e-book reader described in the review to my online friends (e.g., social networks sites, email).
2. I like to pass along the review that I just saw to my online friends (e.g., social networks sites, email).
3. If I received this review from my friends, I would pass the review along to my other online friends (e.g., social networks sites, email).
4. If I received this review from my friends, I would pass the information about the e-book reader along to my other online friends (e.g., social networks sites, email).

Manipulation Check**Valence of Summary Rating**

(7 points semantic-differential)

How would you describe the star rating that indicates the average user ratings of the “Omega” e-book reader?

1. negative/positive
2. unfavorable/favorable

Perceived Social Risk

(7 points semantic-differential)

How risky is the situation to you? (unidimension)

1. no risk/extremely risky

Covariates**Self-rated Product Knowledge**

(1= “strongly disagree”, 7= “strongly agree”)

1. I feel very knowledgeable about e-book readers.
2. If a friend asked me about an e-book reader, I could give him or her advice about different brands.
3. If I had to purchase an e-book reader today, I would need to gather very little information in order to make a wise decision.
4. I feel very confident about my ability to tell the difference in quality among different brands of e-book readers.

eWOM Familiarity

(7 points semantic-differential)

Regarding eWOM information, I am:

1. unfamiliar/familiar
2. inexperienced/experienced
3. not knowledgeable/knowledgeable

Prior Online Purchase Experience

(1= “strongly disagree”, 7= “strongly agree”)

1. I am experienced with online product purchases.
2. I feel competent in purchasing products online.
3. I feel comfortable in purchasing products online.
4. I feel that the online retailer site for purchasing products is easy to use.

Appendix C: Questionnaire for Study 2

Consumers' Online Product Review Study

Thank you for your interest in this study of an online consumer review. The purpose of this study is to understand consumers' evaluation of an online consumer review. Please read the following purchase scenario carefully, and click 'proceed' after reading it.

Please imagine that you need to purchase an electronic book reader (e-book reader) for your business partner. He is a very important person for your career, and he has helped you in various ways to improve your career performances. You have decided to give him a thank-you present for his help, and you have selected an e-book reader because you want the gift to be memorable for him and notice that he would need one.

Reflecting this situation, you will be asked to read one online consumer review out of 704 reviews about a new e-book reader posted at Cnet.com. Please take a moment to read the review carefully and give answers that you consider to be most appropriate.

Section A.

This section is to understand your feelings and opinions about "Omega," a recently launched e-book reader described in the review that you just saw. We are also interested in learning your thoughts on the review.

A1. Product Attitude

Please indicate how you feel about the new e-book reader, "Omega" by clicking the answers that best represent your feelings. (7-point scale)

The e-book reader in the review is....

1. bad/good
2. unsatisfactory/satisfactory
3. unfavorable/favorable

A2. Purchase Intention

The following statements describe the likelihood that you will purchase an "Omega" e-book reader in the future. Please indicate the extent to which you agree or disagree with each of the statements.

(7-point scale with Strongly Disagree/Strongly Agree)

1. I will probably try the product described in the review.
2. It is possible that I will purchase the product described in the review.
3. It is likely that I will buy the product described in the review.

A3. Review Valence

The following statements describe your perception of the online consumer review that you just saw. Please indicate the extent to which you agree or disagree with each statement.

(7-point scale with Strongly Disagree/Strongly Agree)

1. The consumer review positively evaluates the product.
2. The consumer review negatively evaluates the product. (r)
3. In general, the consumer review recommends the product.

*(r) – reverse coded

A4. Perceived Informativeness

The following statements describe your evaluation of the online consumer review that you just saw. Please indicate the extent to which you agree or disagree with each statement.

(7-point scale with Strongly Disagree/Strongly Agree)

1. The review is informative.
2. The review helps me understand the product.
3. The review is useful for understanding the product.
4. The review offers necessary information about the product.

A5. Perceived Helpfulness

Please indicate how you feel about the review in terms of its helpfulness to you. (7-point scale)

In general, the review is....

1. not useful/useful
2. not helpful/helpful
3. not informative/informative

A6. Pass-along Behavior

Below are statements about your intention to pass-along information about the “Omega” e-book reader. Please indicate the extent to which you agree or disagree with each of the statements.

(7-point scale with Strongly Disagree/Strongly Agree)

1. I am willing to pass on information about the e-book reader described in the review to my online friends (e.g., social networks sites, email).
2. I like to pass along the review that I just saw to my online friends (e.g., social networks sites, email).
3. If I received this review from my friends, I would pass the review along to my other online friends (e.g., social networks sites, email).
4. If I received this review from my friends, I would pass the information about the e-book reader along to my other online friends (e.g., social networks sites, email).

Section B.

In this section, we are interested in your personality traits. Please describe the extent to which each of the following statements describes your perception/attitudes/feelings. (7-point scale with Strongly Disagree/Strongly Agree)

1. I rarely purchase the latest fashion styles until I am sure my friends approve of them.
2. It is important that others like the products and brands I buy.
3. When buying products, I generally purchase those brands that I think others will approve of.
4. If other people can see me using a product, I often purchase the brand they expect me to buy.
5. I like to know what brands and products make good impressions on others.
6. I achieve a sense of belonging by purchasing the same products and brands that others purchase.
7. If I want to be like someone, I often try to buy the same brands that they buy.
8. I often identify with other people by purchasing the same products and brands they purchase.
9. To make sure I buy the right product or brand, I often observe what others are buying and using.
10. If I have little experience with a product, I often ask my friends about the product.
11. I often consult other people to help me choose the best alternative available from a product class.
12. I frequently gather information from friends or family about a product before I buy.

Section E.

In order for us to analyze the data obtained from this study, we need to aggregate answers along some characteristics of respondents. Your answers to the following questions will assist us to do so.

E1. Have you read an online consumer review in the last 6 months?

Yes () No ()

E1-a. (for only those of who said 'yes' on E1) On average, approximately how many online consumer reviews do you usually read before purchasing a product? _____

E1-b. (for only those of who said 'yes' on E1) To what extent do online consumer reviews affect your purchase intent of a product?

Very unlikely (1)----(2)----(3)----(4)----(5)----(6)----(7) Very likely

E1-c. (for only those of who said 'yes' on E1) What elements do you think are important when reading online consumer reviews? Please check all that apply.

- 1) Review length
- 2) Review quality
- 3) Reviewer credibility
- 4) Website credibility
- 5) Average summary rating
- 6) Individual rating
- 7) Number of votes on helpfulness/informativeness of the review

E2. Do you have an e-book reader?

Yes () No ()

E2-a. (for only those of who said 'yes' on E2) On average, approximately how long do you spend on an e-book reader per day?

_____ hour(s) _____ minute(s)

E2-b. (for only those of who said 'yes' on E2) What types of functions do you usually use via your e-book reader (e.g., reading, web surfing, video playing etc.)? Please give us top three functions that you use most.

1. _____
2. _____
3. _____

E3. What is your gender? (Please check one)

Male () Female ()

E4. What is your age? _____

E5. What ethnicity would you classify yourself as? (Please check one)

- 1) Caucasian
- 2) African American
- 3) Asian
- 4) Hispanic
- 5) Pacific Islander
- 6) Native American

7) Other (please specify) _____

E6. What is your highest education level? (Please check one)

1. High school or equivalent
2. Vocational/technical school (2 years)
3. Some college
4. College graduate (4 years)
5. Master's degree
6. Doctoral degree
7. Professional degree (MD, JD, etc.)
8. Other

E7. What is your marital status? (Please check one)

1. Single
2. Married
3. Divorced
4. Living with someone
5. Separated
6. Widowed
7. Other

E8. What is your last year's annual Household income level? (Please check one)

1. Under \$10,000
2. \$10,000-\$19,999
3. \$20,000-\$29,999
4. \$30,000-\$39,999
5. \$40,000-\$49,999
6. \$50,000-\$74,999
7. \$75,000-\$99,999
8. Over \$100,000
9. Other

E9. How many HITs have you done today?

Thank you!



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