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The Effects of Source and Content on Types of Social Influence in Online Traveler Reviews

Laura A. Book
University of Nevada, Las Vegas

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THE EFFECTS OF SOURCE AND CONTENT ON TYPES OF SOCIAL INFLUENCE IN
ONLINE TRAVELER REVIEWS

By

Laura A. Book

Bachelor of Science in Business Administration
University of Nevada, Las Vegas
2006

Master of Business Administration
University of Nevada, Las Vegas
2009

A dissertation submitted in partial fulfillment
of the requirements for the

Doctor of Philosophy-Hospitality Administration

William F. Harrah College of Hotel Administration
The Graduate College

University of Nevada, Las Vegas
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Laura A. Book

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Doctor of Philosophy-Hospitality Administration
William F. Harrah College of Hotel Administration

Sarah Tanford, Ph.D.
Examination Committee Chair

Kathryn Hausbeck Korgan, Ph.D.
Graduate College Interim Dean

Gail Sammons, Ph.D.
Examination Committee Member

Anthony Gatling, Ph.D.
Examination Committee Member

John A. Schibrowsky, Ph.D.
Graduate College Faculty Representative

ABSTRACT

THE EFFECTS OF SOURCE AND CONTENT ON TYPES OF SOCIAL INFLUENCE IN ONLINE TRAVELER REVIEWS

by

Laura Book
Dr. Sarah Tanford, Committee Chair
Associate Professor of Hotel Administration
University of Nevada, Las Vegas

Today's highly connected purchasing environment is unique in that consumers are confronted with a vast quantity of information from a variety of sources. Using the theoretical underpinnings of social influence and judgmental heuristics, this dissertation examines source and content characteristics to understand their influence on consumers' perceptions and decisions. This dissertation utilized two experiments to examine how source and content attributes lead to different types information processing and types of social influence in online reviews. The first study utilized a 2 (expertise) x 2 (group membership) experimental design that manipulated source characteristics. The second study utilized a 2 (recommendation percentage) x 2 (content) x 2 (cognitive processing) experimental design that manipulated content characteristics.

The results of study 1 demonstrate that source characteristics of group membership and expertise can have an effect on consumers' perceptions, decisions, and informational influence. The results of study 2 demonstrate how content characteristics can lead to different types of processing, affecting perceptions, decisions, and information recall. The results of this dissertation demonstrate that informational influence is present in online reviews. Normative influence is not present in online reviews suggesting the classic theories do not operate the same way in today's online environment.

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CHAPTER 1

INTRODUCTION

Researchers have long been interested in the factors and underlying processes that influence consumers' perceptions and decisions. Consumer behavior is complex and multifaceted with multiple information cues simultaneously influencing consumers. Research has investigated a variety of factors that influence consumer behavior, ranging from individual characteristics to product/service attributes (Im, Bayus, & Mason, 2003). While factors such as price, quality, and value are well-established determinants of consumer behavior (Zeithaml, 1988), these factors are being influenced in new ways with the increased interconnectivity of today's purchasing environment.

In today's online purchasing environment, consumers are confronted with a vast quantity of information from a variety of sources. This includes company-generated information, such as descriptive content and advertisements. It also includes user-generated content, such as aggregate rating scores, recommendation percentages, and review content created by previous consumers. Specifically, the increased presence of online customer reviews has created a unique purchasing environment for both consumers and companies.

Online reviews provide information for almost any type of product or service, giving consumers the ability to gain insights from others about a product or service prior to purchase. These reviews serve an important role in influencing decisions by informing the reader and/or recommending the reader to purchase the product or service (Park, D. & Lee, J., 2009). The effects of online customer reviews are wide-ranging, with research indicating that customer reviews have a direct influence on consumers' attitudes (Lee, Park, & Han, 2008), purchase

intentions (Scholsser, White, & Lloyd, 2006), product sales (Chevalier & Mayzlin, 2006), pricing power and demand (Anderson, 2012).

One reason online reviews are influential is that they provide information in the form of electronic-word-of-mouth (eWOM). Consumers typically view eWOM as a more credible source of information than company-generated content, and therefore are more likely to be influenced by the opinions of others when making purchase decisions (Filieri & McLeay, 2014; Litvin, Goldsmith, & Pan, 2008; Pan, MacLaurin, & Crotts, 2007; Park & Lee, 2009a). Two important factors that influence credibility of online reviews are the source of the information and the content (Li, Huang, Tan, & Wei, 2013; Liu & Park, 2015). The term source credibility is based on the level of trustworthiness of the person communicating the message (Hovland & Weiss, 1951), whereby a trustworthy source is more influential. Factors such as the level of expertise (Lee & Youn, 2009) and helpfulness (Cao, Duan, & Gan, 2010) also play a role in the credibility of online reviews.

Consumers tend to read review content instead of simply following aggregate ratings (Chevalier & Mayzlin, 2006), particularly when the products are experiential (Liu & Park, 2015). Research indicates that review content affects overall quality and value judgments more than aggregate customer ratings (Noone & McGuire, 2014). Ideally, the review content should be both helpful and persuasive to have optimal influence on the reader's purchase intentions (Baek, Ahn, & Choi, 2012). Factors such as review valence (Zou, Yu, & Hao, 2011), message quality (Baek et al., 2012), and message depth and length (Li et al., 2013) affect the level of influence a review has on the reader.

Online reviews are especially influential for experiential products as these products are difficult to assess prior to purchase (Liu & Park, 2015). Nearly half of online consumers stated

that they actively read reviews related to service products (Sticky Media, 2014). This number is greater for travelers, with research suggesting that approximately 75% of travelers have consulted online reviews when making travel decisions (Gretzel & Yoo, 2008; Mauri & Minazzi, 2013). Industry data suggest that TripAdvisor®, a leading travel review site, attracts more than 280 million users each month, creating a need for operators to have a well-developed strategy to manage the online review phenomenon (Schoettle, 2014). Traveler reviews provide hospitality operators with opportunities to capitalize on positive reviews by increasing prices (Anderson, 2012), as well as the responsibility to minimize threats associated with negative reviews, which can negatively affect perceptions of quality and value (Book, Tanford, Montgomery, & Love, 2015). Thus, an enhanced understanding of the underlying determinants of influential reviews will provide operators with the tools to manage the far-reaching effects of reviews.

Different theoretical lenses have been used to explain the full effect of online reviews, including cognitive dissonance and social influence (Book, Tanford, Montgomery, & Love, 2015; Tanford & Montgomery, 2015), heuristics (Zhang, Pan, Smith, & Li, 2009), information load (Zhang, Wu, & Matilla, 2014), source credibility (Ayeh, Au, & Law, 2013) and social identity (Forman, Ghose, & Wiesenfeld, 2008) to name a few. Results of these studies demonstrate the complexity of the cognitive and psychological processes that take place in the presence of online reviews. This research examines the role of judgmental heuristics and types of social influence that are present in the online purchasing environment.

Judgmental heuristics also referred to as “mental shortcuts”, refer to the psychological use of different principles to reduce the complex task of assessing information (Tversky & Kahneman, 1974). Specifically, two types of information processing, heuristic and systematic, are used to assess information. Systematic processing refers to actively exerting cognitive effort

when confronted with information (Chaiken, 1980; Tversky & Kahneman, 1974). When systematically processing information, individuals exert effort to comprehend and evaluate the message content. On the contrary, individuals engaging in heuristic processing exert little effort in comprehending and evaluating the information. Instead, individuals rely on other cues, such as source attributes, in order to simplify the information (Chaiken, 1980; Chaiken, Liberman, & Eagly, 1989). An individual may enlist one of these types of processing depending on how important the information is to him/her. When information is not considered important, heuristic processing is dominant, whereas when the individual wants to assess the information accurately, systematic processing is used (Chaiken, 1980).

Social influence is a domain of social psychology that examines the effect that other peoples' opinions, beliefs, and attitudes have on an individual's perceptions and decisions (Asch, 1956, Crano, 2000; & Turner, 1991). While social influence is an immensely broad domain, this research focuses on two types of social influence, normative and informational influence. Normative influence is the influence to conform to the positive expectations of others (Deutsch & Gerard, 1955; Turner, 1991), whereas informational influence is the influence to accept information from another as factual evidence about objective reality (Deutsch & Gerard, 1955; Turner 1991).

Both judgmental heuristics and social influence have been primarily used separately in their respected disciplines and in consumer behavior research. However, research has begun to examine the two domains together (Book, Tanford, & Chen, 2015). Integration of the two domains can provide insights and a comprehensive understanding of the cognitive and interpersonal processes taking place in decision-making. Moreover, these domains can be applied to the online purchasing environment to understand how users process and are influenced

by online reviews. By connecting these two domains, this research investigates how certain cues can lead to different types of processing and examines two types of influence that manifest under different conditions.

Problem Statement

Although much progress has been made in examining the effects of online reviews, the applied approach taken by much of the previous research does not fully explain the underlying cognitive and psychological processes experienced by consumers when confronted with online reviews. The effects of online reviews are powerful; however, limited research exists regarding what is taking place in an individual's mind when reading online reviews. To manage the effects of online reviews, one must have a thorough understanding of why reviews are so influential.

Classic social psychology theories explain that people influence each other (Asch, 1956; Crano, 2000, & Turner, 1991), yet it is unclear how this social influence transpires in an online setting where individuals do not know each other. Moreover, it is unclear how certain types of information can trigger different types of information processing and whether there is a relationship between types of information processing and certain types of social influence.

Online reviews are expected to continue to grow in popularity and decrease in user anonymity (Tagrin, 2014), especially with technological advances that contribute to the ease of accessing information. For example, companies are beginning to link reviews to the reader's social media account to highlight reviews posted by the reader's social contacts (Tagrin, 2014). The decrease in user anonymity is projected to increase the credibility and the level of influence of the online reviews (Tagrin, 2014). As the purchasing environment continues to evolve, an integrated approach to understanding the psychological and cognitive processes of the individuals reading online reviews is warranted.

Connecting Judgmental Heuristics and Social Influence

Social influence and judgmental heuristics are similar in their approach to understanding human behavior. Both systems explain the processes involved in making judgments. There are overlapping aspects, such as uncertainty, which is a key tenet in both theories. For example, in a social context, uncertainty is present because information about people is more ambiguous and often less reliable than information about objects (Taylor, 1982). In a non-social context, uncertainty is present when making a judgment because information is incomplete (Kahneman & Tversky, 1973; Taylor, 1982). An individual faced with uncertainty is likely to seek out information from others. If the individual believes the source to be credible, he/she is likely to accept this information as evidence of reality, thus experiencing informational influence. If an individual aims to reduce uncertainty by going along with the social norm, he/she is experiencing normative influence. Thus, uncertainty is a powerful factor in both theories.

The two systems also have distinct differences. Social influence focuses on the influence that people have on each other (Asch, 1956), whereas judgmental heuristics focus on the individual's cognitive processes involved in reducing the complex task of assessing information (Tversky & Kahneman, 1974). The two theories intersect when heuristic principles are used in a social context. For example, Taylor (1982) described how heuristics are used in social aspects such as categorizing an individual, evaluating others, describing another's attributes, and predicting another person's behavior. A person may rely on another's expertise as a guide leading to the use of credibility heuristics (Chaiken, 1987). Furthermore, many decisions are likely to have a social consequence (Taylor, 1982), thus further connecting the two theories. This intersection provides researchers an opportunity to integrate these two theories simultaneously to understand how judgments are formed.

Purpose of the Study

The purpose of this research is to understand how the source and content of online reviews affect the type of information processing used and the type of social influence experienced by an individual. Insights gained from this research will enhance the overall understanding of the social phenomenon associated with online reviews. The research has the following broad objectives:

1. Examine the role of review source and review content on consumer decision-making.
2. Determine the conditions under which consumers experience normative and informational influence as a function of review source and review content.
3. Determine how the two domains relate in explaining the influence of online customer reviews.

Research Questions

This research utilizes two separate experiments to isolate the variables of interest. By using two separate studies, different variables are investigated to provide a comprehensive understanding of the findings. Each study has a unique purpose, which contributes to the overall objectives. Study 1 focuses on the source of the review. As mentioned previously, the source of the information can affect the level of influence on the reader. This research examines expertise and group membership as the source of information. It answers the research question of “how does source information lead to different processing, in turn affecting types of social influence?” Study 2 focuses on the review content, specifically the presence of base rate information, level of information in the content, and enlisting cognitive processing when reading reviews. It answers the research question of “how does review content lead to different processing, in turn affecting types of social influence?”

Delimitations

This research is not without limitations, which are addressed below:

1. The sample of respondents is from an online market research firm, which may not generalize to other populations. However, the use of proper screening questions provides assistance in locating respondents who represent the general traveling population.
2. The findings of this research may not generalize to non-travel related products or stimuli.
3. Researchers are not able to say with absolute certainty that the subject is engaging in a judgmental heuristic, since there is no valid measure for this process (Folkes, 1988b; Taylor, 1982).
4. Subjects made ratings based on hypothetical information; therefore, these results may not reflect the same ratings as in a true purchase situation. However, this is true of the majority of experimental research in the social sciences.

Significance of Study

This research contributes to both theoretical and practical knowledge regarding the underlying processes and influences involved in the online review environment. From a theoretical perspective, this study is unique in that integrating heuristic-systematic processing and types of social influence can provide a comprehensive understanding of how people process information and are influenced when making decisions. In particular, integrating these domains to study the effects of online reviews can enhance researchers' understanding of consumer behavior in the modern-day purchasing environment. Prior research has assumed normative and informational influence were taking place in the purchasing environment, yet these influences have not been measured. This research measures situational normative and informational influence to determine if these influences manifest under certain conditions.

From a practical standpoint, this research contributes to the growing knowledge on online reviews. Specifically, this research examines what aspects of reviews lead to different information processes and different types of influence. Armed with this knowledge, hospitality operators can develop strategies to manage the effects of reviews.

Definition of Key Terms

Key concepts and terms used throughout this research are defined below:

Expert: Someone who has extensive knowledge on a particular topic (Chaiken, 1980; Kelman, 1961).

Heuristic processing: The use of cues in order to simplify information to make judgments (Chaiken, 1980; Chaiken et al., 1989).

Normative influence: The influence to conform to the positive expectations of others (Deutsch & Gerard, 1955; Turner 1991).

Informational influence: The influence to accept information from another as factual evidence about objective reality (Deutsch & Gerard, 1955; Turner 1991).

Recommendation percentage: The aggregate percentage score of the number of people who recommend the travel product.

Source credibility: Whether or not the source of the information is considered trustworthy (Chaiken, 1980; Hovland & Weiss, 1951).

Systematic processing: Actively exerting cognitive effort to comprehend the information presented in order to make an appropriate judgment (Chaiken, 1980).

Traveler reviews: User-generated text displayed online pertaining to a travel product.

Summary

The background of online reviews and theories applicable to investigating the psychological processes associated with reviews was discussed in this chapter. The increased importance of developing a comprehensive understanding of reviews was discussed. The possible relationships between judgmental heuristics and types of social influence were summarized. The following chapter will provide a review of literature, a discussion of the theoretical framework, and the research hypotheses. Methodology and results will follow. Last, a discussion of the findings and theoretical and practical implications conclude this dissertation.

CHAPTER 2

REVIEW OF LITERATURE

Introduction

This chapter provides a review of literature on the domains of behavioral decision-making, social influence, and heuristics as the theoretical foundation of this research. Each domain is defined and described in relation to consumer behavior and hospitality research. This review also includes literature relating to online customer reviews, including the source of reviews and review content. This section integrates literature from a variety of disciplines, including consumer behavior, hospitality, marketing, social psychology, and psychology. A conceptual framework linking online review attributes to heuristic-systematic processing and the resulting types of influence is included at the end of this review. See Figure 1.

This framework postulates that types of review source and review content enlist different processing, heuristic or systematic, thereby leading to different types of social influence, normative or informational. This framework integrates both domains and examines the relationship between the two to understand the cognitive and psychological processes experienced by an individual in the presence of online customer reviews. The first section focuses on the theoretical framework, including behavioral decision-making, social influence, and judgmental heuristics. Next, a discussion of online reviews is provided. Last, a conceptual framework is discussed. Through this review of literature, conceptual support of the research hypotheses is demonstrated.

Behavioral Decision-Making

Researchers have long been interested in understanding how and why individuals make decisions, particularly the specific factors that can influence decision-making (Bartels &

Johnson, 2015; Edwards, 1961; Slovic, Fishhoff, & Lichtenstien, 1977). Behavioral decision theory (BDT) refers to the analysis of an individual's behavior when presented with uncertainty in making a choice (Lee, 1971). Recent research has expanded upon this theory to examine the interaction between cognitive science and theories of cognition, with promising insights for consumer behavior research (Bartels & Johnson, 2015). BDT is expansive, with many aspects outside of the scope of this research. However, a brief overview of particular facets of this theory and the relationship to social influence and judgmental heuristics provides an enhanced theoretical foundation for this dissertation.

Research indicates that internal factors, such as images, values, and beliefs (Miner, 2003) as well as the actual process of making a decision (Whyte, 2000) influence choices. Behavioral decision theories explain how consumers should choose (Thaler, 1980). In theory, decision-making should be a systematic process whereby a rational framework is used for choosing between alternatives (North, 1968). However, there are multiple factors influencing the decision-making process, thus the expected rational process is often not adhered to (Newell, Lagnado, & Shanks, 2007). BDT incorporates factors such as memory, decision rules, and heuristics in the decision-making framework (Thaler, 1980). Chaiken's heuristic-systematic model (1980; 1987) expands on this by explaining that individuals often engage in different types of information processing depending on different factors. The heuristic-systematic model is based on the dual process theory which explains that memory, decision rules, and heuristics are often associated with type 1 or heuristic processing which is an automatic type of processing. Conversely, type 2 or systematic processing involves rational and analytical thought to achieve a desired choice (Gawronski & Creighton, 2013).

Behavioral decision theory has two interrelated facets, normative and descriptive (Slovic et al., 1977). Normative is concerned with prescribing courses of action that conform closely to the decision maker's belief and values, that is, a decision among the same options should result in the same outcome (Kahn, Luce, & Nowlis, 2006). This is similar to Deutsch and Gerard's (1955) normative influence, which states that individuals are influenced by the positive expectations of others, and therefore tend to make decisions in line with the social norm. Descriptive decision theory refers to describing these beliefs and the manner in which individuals incorporate them into their decisions (Slovic et al., 1977). This is similar to informational influence in that the description of these beliefs forms the information shared between individuals.

Behavioral Decision Theory in Consumer Behavior Research

Traditional theories of consumer decision-making postulate that individuals attach a value to each alternative and systematically select the alternative with the highest value (Edwards, 1954). However, research suggests that people often deviate from a rational choice model of decision-making (Frederiks, Stenner, & Hobman, 2015). Behavioral decision theory takes into account the complexity of the purchase environment, the task at hand, and an individual's beliefs, thereby enriching traditional economic models of consumer choice (Swait & Adamowicz, 2001). The complexity of the purchase environment is significant because increased complexity can lead individuals to delay their decisions, seek other alternatives, or revert to a decision that maintains the status quo to avoid the conflicting feelings associated with complex decision-making (Tversky & Shafir, 1992).

BDT has been used to investigate different consumer behavior topics, such as customer satisfaction (Johnson & Fornell, 1991), customer loyalty (Wallin-Andreassen & Lindestad,

1998), and product framing decisions (Puto, 1987). However, the use of BDT alone provides limited insights into today's consumer (Simonson, 2015). Today's online purchasing environment increases the complexity of consumer choice as consumers are bombarded with varying types of information when making a purchase decision. Researchers have applied information overload theory to the online purchasing environment, finding that the quantity and quality of information can negatively affect consumers' purchase decisions due to consumers' inability to process large amounts of rich information (Chen, Shang, & Kao, 2009; Gao, Zhang, Wang & Ba, 2012). As the information environment evolves, it is necessary that researchers examine judgements and decision-making using a broader theoretical focus (Simonson, 2015). The application of social influence and judgmental heuristics provides a useful tool to investigate this phenomenon.

Social Influence

Social influence can provide insights into the phenomenon whereby people are influenced, either directly or indirectly, by the opinions, beliefs, and attitudes of others (Asch, 1956; Crano, 2000; Turner, 1991). Social influence is an integral part of the larger social psychology field. Social influence often examines the social norm as it relates to influencing individuals. A social norm is defined as a shared expectation of an accepted way of thinking, feeling, or behaving (Deutsch & Gerard, 1955). Social norms are built on the foundation of what people ought to do as members in society (Turner, 1991) and these expectations shape the interactions among individuals.

The domain of social influence has been investigated in a variety of contexts, starting with a set of the classic studies conducted in the 1950s and expanding into present research. Traditionally, social influence has been studied in three distinct areas including social influence

on judgments (Asch, 1956), social influence in small-group interactions (Hopkins, 1964) and social influence from persuasive communication (Hovland, Janis, & Kelley, 1953). Researchers then shifted to looking at these distinct areas together to understand the full effect of social influence (Kelman, 1961). Social influence continues to be an important topic for today's society, which exists in a highly connected, digital environment. In fact, research suggests that social influence is present in online consumer decisions (Duclos, Wan, & Jiang, 2013), social comparisons (Shalev & Morwitz, 2012), and in online social networks (Wilcox & Stephen, 2013). It is therefore critical to understand the changing role of social influence across a variety of disciplines.

Social Influence in Consumer Behavior Research

Early research indicated that the most prevalent factor of consumer decisions is the influence of others (Burnkrant & Cousineau, 1975). Today, social influence is still relevant and has been used to investigate a variety of topics, including marketing and brand name effects, product evaluations, and product choices, suggesting that influence ranges from a mere presence to deliberate persuasion. (Cialdini & Goldstein, 2004; Dahl, 2013). Different facets of social influence, including compliance/identification/internalization (Kelman, 1961), conformity (Asch, 1951), minority influence (Moscovici, 1976), and normative and informational influence (Deutsch & Gerard, 1955), have been applied to consumer behavior research.

The two types of social influence, normative and informational, have proven especially useful in understanding consumer behavior. Normative influence occurs when decisions are governed by a desire to conform to others' expectations, whereas informational influence occurs when the information itself affects decisions. Research has examined these influences in regards to product evaluations (Burnkrant & Cousineau, 1975; Cohen & Golden, 1972; Lascu, Bearden,

& Rose, 1995; Venkatesan, 1966), product quality (Pincus & Waters, 1977), and brand decisions (Bearden & Etzel, 1982). The findings of these experiments suggest that both types of influence are observable in purchase decisions. In one study, subjects were influenced by exposure to previous ratings of instant coffee. Specifically, informational influence was manipulated since others' evaluations were used as a source of information thereby affecting product evaluations (Burnkrant & Cousineau, 1975). Although not found in that particular experiment, normative influence in consumer behavior has been demonstrated in other settings. For example, a classic experiment found that individuals tended to conform to group norms, particularly if there was an absence of an objective standard. In that study, subjects were placed in groups where a confederate (person of influence) would suggest one of the men's suits to be the best choice. Although all the suits were the same, the subjects rated the suits differently depending on the group norm, thus indicating that normative influence was present (Venkatesan, 1966).

Some studies have found both normative and informational influence in buyer behavior, which manifest under different situations. Lascau et al. (1995) investigated the effect of extreme norms with varying group size and prior nutritional knowledge when evaluating a liquid diet lunch product. The results indicated that the group size was important when norms were extreme. Additionally, subjects with low nutritional knowledge were influenced by the group norm, thus normative influence was present. Subjects with high nutritional knowledge were influenced by the group expertise, thus informational influence was present. The study demonstrated that the level of prior information affects the type and degree of social influence.

Recent research indicates that social influence is changing in today's highly connected society. One example is advertisers' use of online social networks to create social influence in favor of their product or service, whereby advertisements presented next to user-generated

content are more effective (Knoll & Schramm, 2015). Of particular interest is that social influence in today's society is taking place in a variety of online settings where individuals do not know each other. Aspects of social influence, such as trust in the source, are present in online customer reviews despite the fact that the reader does not know the reviewer (Park, C. & Lee, T., 2009). Given the changing presence of social influence, a closer examination of these classic theories is warranted to understand how influence manifests and its effects on consumer behavior.

Social Influence in Hospitality Research

Social influence has been applied to hospitality research, although not as extensively as in general consumer behavior research. Since travelers are faced with a multitude of options when making travel decisions, social influence can provide insights into this complex process. Social influence has been used to examine repurchase intention in a hospitality setting (Butcher, 2005). That study examined the role of social comfort and social regard in relation to revisit intention of cafes, with results indicating that social regard played a pivotal role in early revisit intentions.

Continued research on social influence in hospitality has examined its role in online travel purchases. Research has demonstrated that online recommendations for experiential products are significantly more influential than for standard products (Senecal & Nantel, 2004), thereby increasing the relevance of social influence in online travel purchase decisions. The role of majority and minority influence (Moscovici, 1976) has been used in online travel purchase decisions. For example, Tanford and Montgomery (2015) utilized traveler reviews as social influence and found that subjects were less likely to choose the environmentally friendly resort when only a minority of reviews favored it, thus going against their pre-existing pro-environmental attitudes. Research has also investigated the role of unanimity in social influence.

Two recent studies utilized unanimity of online customer reviews, finding that unanimity of online customer reviews affects resort evaluations, choices, and willingness to pay (Book, Tanford, & Chen, 2015; Book, Tanford, Montgomery, & Love, 2015). In both studies, unanimity was a key factor in breaking the influence of negative reviews, whereby one positive review among a series of negative reviews reduced the effects from the negative influence. This relates to Asch's (1956) conformity research that indicates that the presence of unanimity or lack thereof can affect the degree and type of influence experienced.

Normative Influence

Deutsch and Gerard (1955) identified two types of social influence, normative and informational, that manifest through different processes. Although these two forms of social influence are prevalent in society, they often go unnoticed with people not realizing the full effect that others have on their judgments (Cialdini, 2005; Nolan, Schultz, Cialdini, Goldstein, & Griskevicius, 2008). This can lead people to receive influence from others when making judgements and decisions. Normative influence refers to the influence to conform to the positive expectations of others (Deutsch & Gerard, 1955; Turner 1991). Normative influence can further be defined as either value expressiveness or utilitarian (Kelman, 1961). Value expressiveness is defined as the desire to enhance one's self image by associating with a desired reference group, whereas the utilitarian view represents the need to comply for rewards or to avoid punishment (Kelman, 1961). Thus, normative influence, in general, is created through individuals motivated to seek rewards, avoid rejection, or identify with others by going along with the social norm (Deutsch & Gerard, 1955; Cohen & Golden, 1972). It can be achieved through both conformity and the process of compliance, whereby an individual accepts the influence to obtain a positive response from others, even though he/she may not agree with the choice (Kelman, 1961).

Normative influence is present in situations that are seemingly objective in nature (Crano, 2000; Turner, 1991). For example, when the correct choice is clear, normative influence operates to a greater extent than informational influence (Gorenflo & Crano, 1989). It is more likely for an individual to go along with the norm when there is little uncertainty about the right choice since doing so would seem appropriate.

Normative influence can be communicated through direct observation, which leads to an unstated pressure to conform to the norm (Asch, 1956) as well as through messages received either directly or indirectly through a variety of channels (Deutsch & Gerard, 1955; Turner, 1991). Thus, normative influence could manifest through individuals observation of others' purchasing behaviors or through messages received from others in the form of user-generated content. Normative influence is commonly found in groups with shared membership and social interdependence (Deutsch & Gerard, 1955). Early research demonstrated that the greater the interdependence and the amount of interaction among group members, the stronger the normative influence (Di Vesta, 1959). Moreover, group member similarity increases the presence of normative influence (Lascu & Zinkhan, 1999). Recent research indicates that normative influence may extend to non-traditional groups as well. For example, normative influence has been manipulated in online purchasing groups whereby individuals share similar interests, but do not know each other personally (Kuan, Zhong, & Chau, 2014). To understand the role of normative influence in decision-making, it is important to examine its place in other contexts.

.Normative influence and the theory of planned behavior.

Normative social influence is related to the subjective norm component in the theory of planned behavior, a theory designed to predict and explain human behavior in a variety of

contexts (Ajzen, 1991). This theory is comprised of three factors: attitudes toward the behavior, subjective norm, and perceived behavioral control; that are believed to influence behavioral intention (Ajzen, 1991). The following section focuses on the subjective norm portion of the theory, as it is most relevant to this research.

Normative beliefs are a combination of personal beliefs and others' expectations (Ajzen & Fishbein, 1969). Behavior research began including normative beliefs and motivation to comply as key components of decision-making as it was believed that a person's attitude alone was not enough to determine behavior intention (Ajzen & Fishbein, 1969). Subjective norm is defined as social pressure to perform or not to perform a behavior (Ajzen, 1991). This perceived social pressure is a result of normative beliefs held by the individual as well as the motivation to comply with these beliefs. Thus, subjective norm is a product of normative beliefs and the motivation to comply with those beliefs (Ajzen, 1991).

The combination of attitude and subjective norm was found to be a significant predictor of behavior (Ajzen & Fishbein, 1973). Although the subjective norm is a critical piece of the theory of planned behavior, the strength of subjective norm can vary. Research has demonstrated results for the subjective norm have been mixed and that personal considerations tended to overshadow the influence of the subjective norm in certain situations (Ajzen, 1991). Moreover, motivation to comply did not always add predictive power for behaviors (Ajzen & Fishbein, 1969). Despite the variation in importance, the subjective norm is an integral part of the theory of planned behavior and can be used to explain a portion of an individual's behavior intention.

Subjective norms have been investigated in a variety of consumer behavior and hospitality contexts to examine how they influence behavior. A large portion of this research

examines the relationship between subjective norm and behavioral intention in making environmentally friendly decisions, such as choosing to stay at a green hotel (Chen & Tung, 2014; Han, 2015; Han & Yoon, 2015) or patronizing an eco-friendly restaurant (Kim, Njite, & Hancer, 2013). Results of the aforementioned studies demonstrate that subjective norms play an important role in behavioral intention. In tourism research, subjective norms have been found to help lower risk and uncertainty involved in decision-making by positively influencing attitudes (Quintal, Lee, & Soutar, 2010). That is, subjects were more willing to visit a particular destination if others viewed the destination positively. Subjective norms have also been used to examine interpersonal interactions. For example, research suggests that subjective norms influenced dining out decisions when eating with friends versus eating alone, particularly for American consumers (Bagozzi, Wong, Abe, & Bergami, 2014). There are several parallels between subjective norm and normative influence. The following sections discuss normative influence in consumer behavior and hospitality research.

Normative influence in consumer behavior research.

Normative social influence has been studied in a variety of consumer behavior contexts, including product evaluations (Burnkrant & Cousineau, 1975), pro-environmental behaviors (Pickett-Baker & Ozaki, 2008) as well as in an online group buying websites (Kuan et al., 2015). Normative influence is manipulated as an independent variable in consumer behavior research to examine its effects on dependent variables, such as purchase intention. Determining normative influence in consumer behavior has posed a challenge for researchers in that it is not as clear as measuring subjective norm. Researchers typically measure subjective norm by asking respondents to rate the extent to which important people in their lives would approve or disapprove of their performing a given behavior (Ajzen, 1991). The *Susceptibility to*

Interpersonal Influence scale (Bearden, Netemeyer, & Teel, 1989) is the closest related measure for normative influence in consumer behavior research. However, this scale focuses on the individual and not the conditions under which normative influence may manifest. This research uses a new scale created by the author, *Situational Social Influence* scale, which can determine the conditions that lead to normative influence in the online purchasing environment.

Normative influence in hospitality research.

In the hospitality context, normative social influence has been investigated mostly as it relates to pro-environmental behaviors with overall results suggesting that normative messages can enlist a change in behavior (Goldstein, Cialdini & Griskevicius, 2008; Schultz, Khazian, & Zaleski, 2008). In these studies, normative messages were communicated with varying message cards in hotel rooms regarding participation in environmental conservation programs. The results indicated that subjects internalized the type of message, which created the presence of a norm, leading to a change in behavior.

While normative influence in hospitality research has been limited, the closely related subjective norm has been used in hospitality research to examine topics including customer decisions related to environmentally friendly hotels (Han & Kim, 2010), destination choice (Lam & Hsu, 2004), revisit intentions (Petrick, Morais, & Norman, 2001), risk and uncertainty in tourism (Quintal et al, 2010), and word-of-mouth behaviors (Cheng, Lam, & Hsu, 2006). Results of these studies indicate that the being exposed to other travelers' thoughts and behaviors formed a subjective norm that influenced consumers' perceptions and decisions. Normative influence extends from the subjective norm, as there are more components to normative influence than social pressure. Normative influence exists when individuals conform to the

positive expectations of others in order to avoid disapproval or gain approval from others (Deutsch & Gerard, 1955).

Informational Influence

Informational influence is the influence to accept information from another person as evidence about reality (Deutsch & Gerard, 1955; Turner, 1991). It is driven by uncertainty and the need to be correct about reality. Uncertainty creates a dependence on others to provide valid information (Deutsch & Gerard, 1955), particularly when one's own ability to make a judgment is unclear (Cohen & Golden, 1972). The impact of informational influence has been studied in consumer behavior, particularly in regards to product evaluations. As mentioned previously, the findings suggest that people use other people's evaluations as a source of information about a product. Additionally, the information provided by others' evaluations influences whether or not the product is viewed as desirable (Burnkrant & Cousineau 1975; Cohen & Golden 1972).

Because objective evidence is challenging to obtain, an individual will seek out valid information from others, thus the source of the information is a key component in informational influence (Cohen & Golden, 1972). The topic of source credibility has been widely studied in social psychology and communication literature (Pornpitakpan, 2004) and is an important component of social influence. Source credibility is comprised of both expertise and trustworthiness, whereby a credible source is one who is likely to know and communicate accurate information (Chaiken, 1980; Kelman, 1961). Different source qualities, such as expertise, attractiveness, competence, and skill can increase the presence of informational influence (Crano, 2000; McGuire, 1969). Furthermore, a source perceived to be credible will lead an individual to believe and internalize the information (Kelman, 1961; McGuire, 1969).

Much of the prior research on informational influence used student samples that were heterogeneous, thus the impact of source credibility was unclear.

Informational influence in consumer behavior research.

Both types of influence reflect a person's social dependence on others when making decisions. Furthermore, it is thought that social norms convey information, therefore further entwining the two (Turner, 1991). Since the two types of influences often co-exist, it can be challenging to investigate each separately. Prior research has manipulated informational influence to examine its effects on product evaluations. A consumer is often unable to assess the characteristics of a product or service prior to purchase. Thus, consumers often seek out information from others.

The results of prior research indicate that people use others' evaluations as a source of information about the product (Burnkrant & Cousineau, 1975; Cohen & Golden, 1972; Pincus & Waters, 1977; Venkatesan, 1966). One classic study investigated subjects' evaluation of coffee products while exposed to others' evaluations. The findings suggested that greater uniformity of evaluations led to higher acceptance of the influence and that individual judgments may be modifiable by the perceived evaluations of others. Furthermore, the study demonstrated that informational influence was present even under minimal conditions of social influence (Cohen & Golden, 1972). Similar results were found in another study examining evaluations for a paper plate product, whereby uniformity of influence increased the acceptance of the influence (Pincus & Waters, 1977).

Recent research pertaining to informational influence has received limited attention. The closest related topic is word-of-mouth (WOM), which relates to informational influence in that the information provided through WOM influences others' decisions. If an individual accepts

this information as factual evidence about reality, they are experiencing informational influence (Turner, 1991). Interpersonal influence and WOM are ranked the most important information sources for consumers making purchase decisions because they are believed to be credible sources of information (Litvin, Goldsmith, & Pan, 2008). Consumers' motives for seeking WOM include risk reduction, need for knowledge, and increasing efficiency of their search process (Schiffman & Kanuk, 1978). This extends to the online purchasing environment in the form of eWOM. eWOM is a form of electronic customer generated communication, such as online reviews, pertaining to a company or product (Henning-Thurau, Gwinner, Walsh, & Gremler, 2004). Consumers seek out eWOM to save time and to make the right purchase decision (Hennin-Thurau & Walsh, 2003). Similar to traditional WOM, eWOM has a powerful effect on evaluations and decisions (Litvin et al., 2008).

Informational influence in hospitality research.

In hospitality research, informational influence has mostly been examined by investigating WOM and eWOM. Hospitality consumers tend use eWOM for convenience, risk reduction, social reassurance, quality assurance, new offerings, and to participate in an online community (Kim, Mattila, & Baloglu, 2011). Hospitality operators strive to understand why eWOM occurs and how to positively influence it (Melian-Gonzalez, Bulchand-Gidumal, & Lopez-Valcarcal, 2013). eWOM has been investigated in regards to hotels (Cantallops & Salvi, 2014), restaurant experiences (Jeong & Jang, 2011), and online travel websites (Ip, Lee, & Law, 2012), with results suggesting that eWOM has a powerful influence on consumers. eWOM has also been found to have a direct effect on hotel perceptions (Zhang & Mao, 2012), hotel booking intentions (Ladhari & Michaud, 2015), and loyalty programs (Berezan, Raab, Tanford, & Kim, 2015). Many studies conclude that positive eWOM leads to positive perceptions, whereas

negative eWOM can have a detrimental effect, thus demonstrating the importance of eWOM in the hospitality industry (Melian-Gonzalez et al., 2013). Hospitality research can benefit from expanding eWOM research to examine when eWOM can lead to informational influence.

Social influence in the online purchasing environment

Recent research has manipulated normative and informational influence, indicating that both types of influence are applicable to the online purchasing environment (Filieri, 2015; Kuan et al., 2014; Quaschnig, Pandelaere, & Vermeir, 2015). One experiment manipulated the number of consumers who had purchased the product (“buy”), which was displayed to induce informational influence. The other experiment manipulated the number of product “likes” to induce normative influence (Kuan et al., 2014). The results indicated that both “buy” and “like” information influenced purchase intentions. Another study examined normative and informational aspects in relation to online review helpfulness. Normative influence was manipulated by the consistency of the reviews. Results indicated that reviews were viewed as more helpful when they were consistent, thereby establishing a norm. Informational influence was manipulated in the form of reviewer expertise, whereby reviews provided by experts were perceived as more helpful (Quaschnig et al., 2015). Filieri (2015) examined varying factors in online reviews that represent informational and normative influence. These factors were used to investigate what leads to greater information usage. The findings revealed that the quality of information was important and that informational influence was more prevalent than normative. However, normative cues were also strongly related to subjects’ information usage.

The application of social influence to the online purchasing is still in its infancy. Thus, there is much to learn about social influence in today’s online environment. The results of the aforementioned studies demonstrate that both types of influence are present in the online

purchasing environment. This research extends upon social influence by measuring types of influence and integrating heuristic-systematic processing to examine the types of influence experienced in the online purchasing environment.

Judgmental Heuristics

Heuristics explain how individuals rely on certain beliefs when determining the likelihood of uncertain events (Tversky & Kahneman, 1974). These beliefs are typically based on incomplete information, thus producing systematic errors. Two commonly used heuristics are representativeness and availability. Representativeness refers to the idea that people predict the outcome that appears most representative of the evidence (Kahneman & Tversky, 1973). Representativeness is based on subjective probability of the extent to which the event in question “reflects the salient features of the process by which it is generated” (Kahneman & Tversky, 1972, p. 431). Representativeness can produce errors in judgments that are difficult to overcome due to the intuitive predictions made from inadequate information or preconceived notions (Barbey & Sloman, 2007; Kahneman & Tversky, 1973; Kahneman, 2011). In particular, items may be representative, thus causing an intuitive response that is difficult to override, even though the items do not influence probability (Kahneman & Frederick, 2002). Additionally, unrelated variables that influence probability may not be used in assessing the likelihood of an event. Similarity and probability are the main factors comprising representativeness (Bar-Hillel, 1982).

Base rate information is general, background content that provides information about how things typically are in a situation (Bar-Hillel, 1980; Kahneman & Tversky, 1973). Extensive research suggests that base rate information is often neglected due to the cognitive load it places on an individual. This perceived cognitive load requires an individual to engage in systematic processing in order to utilize base rate information to make a decision (Bonner &

Newell, 2010; Kahneman & Frederick, 2002; Pennycook, Trippas, Handley, & Thompson, 2014). Individuals often prefer to make predictions using information that is representative and easy to process, such as stereotypes (Barbey & Sloman, 2007; Kahneman, 2011). However, research also suggests that base rates may lend themselves to heuristic processing, similar to how stereotypes are processed. Thus, base rates can be processed using either heuristic or systematic processing (Pennycook et al., 2014). Furthermore, individuals with developed analytical thinking skills are more likely to use base rate information when making decisions, thus indicating that base rate information is not always neglected and can be an important component in the decision-making process (De Neys, 2007; Pennycook & Thompson, 2012). Research suggests that extreme base rate probabilities can lead to different types of cognitive processing depending on the complexity of the information (Pennycook et al., 2014). This research examines the role of clear and ambiguous base rate information in the presence of online reviews to investigate how subjects make purchase decisions.

The availability heuristic is similar to representativeness in that both use pieces of information to form judgments (Kahneman & Tversky, 1973). Simply stated, the availability heuristic is a cognitive shortcut based on readily available examples or past experiences that come to mind. When a person “estimates the likelihood of an event based on the ease of which instances come to mind, they are engaging in the availability heuristic” (Tversky & Kahneman, 1974, p.1124). The assessment of availability is based on three factors 1) the ease of retrieving instances, 2) the ease of construction, 3) the level of association (Tversky & Kahneman, 1974). Tversky & Kahneman (1974) explain that a person can retrieve instances if they have personally experienced it or know people who have. If it is not an instance that a person can retrieve, then the person may evaluate the possibility of an outcome based on predictions that come to mind.

The level of association plays an important role in determining what instances quickly come to mind since a person cannot access every example or memory. Additionally, how salient the instance is affects its availability for retrieval or construction (Taylor, 1982). Word-of-mouth from family/friends, customer testimonials, and recent or frequent examples are particularly salient in an individual's mind, thus increasing individuals' susceptibility to the availability bias (Frederiks et al., 2015). Relevant to this research are the cues that are displayed to ease in construction of the anticipated result of the subject's decision. Since individuals place a greater weight on information that is readily available, other guests' experiences communicated through the online reviews are expected to lead the subject to experience the availability bias when evaluating the information.

Heuristic-Systematic Model

Different types of information lead to different types of cognitive information processing, namely heuristic and systematic. Heuristic-systematic processing is based on the dual-process theory, which postulates that mental processes fall into two general categories. Type 1 processing is automatic and Type 2 processing requires working memory and analytical thought (Gawronski & Creighton, 2013). Chaiken's (1980; 1987) heuristic-systematic model explains two basic processes that guide an individual's attitudes and decisions. Systematic processing refers to actively exerting cognitive effort when confronted with information (Chaiken, 1980; Chaiken & Ledgerwood, 2012). When systematically processing information, individuals exert effort to comprehend and evaluate the message content, typically evaluating the pros and cons of the message's argument (Chaiken, 1980; Gawronski & Creighton, 2013). Thus, systematic processing is sensitive to the valence and quality of the message (Chaiken, 1980). On the contrary, individuals engaging in heuristic processing exert little effort in comprehending and

evaluating the information. Instead, individuals rely on readily available cues, such as source attributes, in order to simplify the information (Chaiken, 1980; Chaiken & Eagly, 1989; Chaiken & Ledgerwood, 2012). For example, an individual receiving information from an expert could enlist the heuristic that “experts are always right” thereby not systematically assessing the information and simply following the expert’s judgment.

Different factors such as time available, mood, intelligence, and exposure to analytical thinking can influence the type of processing an individual uses (Kahneman & Frederick, 2002). An individual may consciously or subconsciously enlist one of these types of processing depending on how important the information is to him/her, whether or not the individual agrees with the argument, the clarity of the argument, and his/her motivation for processing the information (Chaiken & Maheswaran, 1994). When information is not viewed as important or an individual is under constraints of time or cognitive ability, heuristic processing is dominant. However, when an individual wants to assess the information and is capable of doing so, systematic processing is used (Chaiken, 1980; Chaiken & Ledgerwood, 2012). Research suggests that individuals can simultaneously engage in both types of processing, whereby the systematic processing monitors the quality of the heuristic and can endorse, correct, or override the heuristic (Gawronski & Creighton, 2013; Kahneman & Frederick, 2002).

Heuristics in Consumer Behavior and Hospitality Research

Understanding how certain information can lead to different processing can explain how people make decisions. Since making a purchase requires making a decision, the relevance of heuristics to consumer behavior research is clear. Heuristics have been broadly applied to examine how consumers derive their consideration sets (Laroche, Kim, & Matsui, 2003), choices

(Park & Lessig, 1981; Thaler, 1980), and perceptions (Lee, 2012). The aforementioned studies demonstrate that consumers use heuristics as a way to simplify their decision tasks.

Certain product/service information can present a heuristic cue that influences perceptions and decisions. For example, brand name can serve as a heuristic, whereby consumers associate brand familiarity with perceptions of quality (Bettman & Park, 1980; Maheswaran, Mackie, & Chaiken, 1992; Park & Lessig, 1979). Often times consumers will use this brand name heuristic to minimize risk associated with purchasing a lousy product (Folkes, 1988a; Laroche, Kim, & Zhou, 1996). Another study found that consumers' use the price-quality heuristic to evaluate products, and this heuristic can influence overall product perceptions (Gneezy, Gneezy, & Lauga, 2014). A hospitality study found that including an eco-friendly heuristic cue influenced consumers' perceptions of a hotel (Sparks, Perkins, & Buckley, 2013).

The heuristic-systematic model has been applied to the online purchasing environment, with research suggesting that dual-processing theories provide an effective assessment for explaining how factors in the online purchasing environment affect decision-making (Cheung & Thadani, 2012). For example, research has investigated the content of online reviews as a systematic factor and source of reviews as a heuristic factor, finding that both directly affect purchase intentions (Zhang, Zhao, Cheung, & Lee, 2014). Research has also investigated the role of individual characteristics, such as consumer experience, knowledge, and motivation, which can lead to different information processing, whereby less experienced, knowledgeable, or motivated consumers are more likely to engage in heuristic processing by following others' opinions (Cheung, Xiao, & Liu, 2014), even when doing so results in a less than optimal choice (Gupta & Harris, 2010).

In hospitality research, heuristics have been applied to examine travelers' booking intentions based on specific website criteria (Virginia-Phelan, Christodoulidou, Countryman, & Kistner, 2011), source credibility of eWOM (Llamero, 2014), eco-friendly cues for resorts (Sparks et al., 2013), pricing practices (Miao & Mattila, 2007), and travel packages (Tanford, Baloglu, & Erdem, 2012). Recent research regarding price-anchoring effects found that willingness-to-pay increased in the presence of consistently positive online reviews and when a higher reference price was presented (Book, Tanford, & Chen, 2015). This research follows a similar approach to Sparks et al. (2013) in that cues are displayed to encourage different types of processing. Sparks et al (2013) found that heuristic processing may have been involved as the eco-friendly certification logos had an effect on the subjects' attitudes towards the resort. This research examines heuristic-systematic processing in relation to a travel decision, which is appropriate given that the product is experiential and the investment of resources involved in a travel purchase. As the presence of information continues to advance, examining classic heuristic principles is imperative to understanding the cognitive processes associated with the online purchasing environment.

Online Reviews

Online customer reviews are an ever-present part of the online purchasing environment. When an individual is not able to assess a situation based on his/her own prior knowledge, he/she recognizes this need and are motivated to seek out additional information (Crotts, 1999). This is true of the online purchasing environment, whereby online reviews serve as a source of information. Online reviews provide information for almost any type of product or service. Research indicates that reviews have a direct influence on consumers' attitudes (Lee et al., 2008), purchase intentions (Scholsser, White, & Lloyd., 2006), product sales (Chevalier &

Mayzlin, 2006), resort evaluations (Book, Tanford, Montgomery, & Love, 2015), and willingness to pay (Book, Tanford, & Chen, 2015). Online reviews serve an important role in influencing decisions by informing the reader and/or recommending the reader to purchase the product (Park, D. & Lee, J., 2009). The two main factors that influence a message's credibility are the source of the information and the content (Li, Huang, Tan, & Wei., 2013; Liu & Park, 2015).

Review Source and Review Content

The source of the review can affect the overall influence of the review in different ways. For example, Schindler and Bickart (2012) found that providing information about the reviewer, such as his/her name, increases credibility, thus influencing the reader to trust the reviewer. An increase in trust is associated with the helpfulness of the review, thereby influencing the effectiveness of the review. However, this is only effective to a certain extent. Too much information about the reviewer shifts the focus away from the content, making the review less helpful to the readers. Reviewer expertise was found to contribute to the helpfulness of the review, as readers believed a reviewer with higher expertise to be more credible (Cheng & Ho, 2015). Furthermore, the study found that reviewers with a large number of readers following their posts were considered to be more credible and helpful. Research suggests that review source is undoubtedly important and different personality traits of the review source, such as extroversion, can affect review helpfulness (Yoo & Gretzel, 2011).

Message content is important because consumers tend to read review content instead of simply following aggregate ratings (Chevalier & Mayzlin, 2006), particularly when the products are experiential (Liu & Park, 2015). Experiential products are those products that consumers choose, buy, and use to experience and enjoy (Cooper-Martin, 1991). Nearly half of online

consumers stated that they actively read reviews related to service products (Stikky Media, 2014). This number is higher for travelers, with research indicating that as many as three quarters of travelers have consulted online customer reviews when making travel decisions (Gretzel & Yoo, 2008; Mauri & Minazzi, 2013).

Research has demonstrated that review content affects overall quality and value judgments more than aggregate customer ratings (Noone & McGuire, 2014). Ideally, the message content should be viewed as both helpful and persuasive in order to have optimal influence on the reader's purchase intentions (Zou et al., 2011). The vast quantity of reviews can produce information overload, thus understanding what aspects of message content are most useful to readers allows websites to highlight the most important reviews, thereby increasing the effectiveness of these reviews (Liu, Jin, Ji, Harding, & Fung, 2013).

The line of recent research regarding social influence and heuristics in today's purchasing environment suggests that hospitality research can benefit from application of classic theories. For example, Tanford and Montgomery (2014) found that a minority influence was strong enough to make subjects go against their pre-existing attitudes. Book, Tanford, Montgomery, & Love. (2015a) demonstrated that social influence was more powerful on subjects' evaluations and decisions than price. Furthermore, Book, Tanford, & Chen (2015) found that social influence was more powerful than a significant price decrease and influenced subjects' willingness-to-pay, as well as perceptions of quality and value. In these studies, social influence was manipulated by the consistency of reviews. This research expands upon these studies by examining specific aspects of online reviews to understand what types of information lead to normative and informational influence.

Normative and informational influences are postulated to be present in social situations relating to consumer behavior. The classic research manipulated influence to examine the difference on product ratings and likelihood to choose. As this line of research evolved, researchers began to examine individual characteristics that lead to susceptibility to interpersonal influence, deriving a way to measure susceptibility to normative and informational influence (Bearden et al., 1989). Today, researchers are still interested in understanding the role of social influence in the digital age (Dahl, 2013). However, limited research exists on the types of social influence in today's online purchasing environment, despite the importance and applicability to advancing consumer behavior research.

Both classic and recent research regarding judgmental heuristics indicates that different heuristics are present in the purchasing environment. Continued research on this topic is warranted to explain how different types of information present in the online purchasing environment lead to different types of processing and whether these are linked to normative and informational influence. This dissertation integrates types of information processing with types of social influence to investigate the phenomenon of online reviews. The conceptual framework explained in the following section will provide researchers with a foundation to investigate what aspects of online reviews enlist certain processing types and the type of social influence experienced as a result.

Conceptual Framework

Online reviews have been studied in the past few years, however much of this research takes an applied approach, examining the effects of reviews, but not the reasons why reviews are so influential. The integration of the social influence and judgmental heuristics in this research provides an opportunity to examine specific attributes of online reviews. To integrate both domains, it is necessary to examine how an individual's internal processes (heuristic-systematic) combined with external influences (social influence) affect the types of influence experienced, as well as perceptions. Based on previous literature, this research proposes a conceptual framework (Figure 1) aimed at identifying normative and informational influence in the online purchasing environment.

The framework includes aspects of review source and review content. Source characteristics, including expertise, attractiveness, competence, and skill can increase the trustworthiness of the source (Crano, 2000; McGuire, 1969). In an online setting, the source of the review is deemed more credible if reviewer information is provided about the source (Schindler & Bickart, 2012). Thus, under conditions where review source information increases trustworthiness and credibility, the expected result is for an individual to enlist heuristic processing, thereby trusting the information provided by the reviewer. Identification is a key concept in normative influence leading people to make decisions in order to identify with others and go along with others' positive expectations (Deutsch & Gerard, 1955; Turner, 1991). In an online setting, identifying with the source of the review enhances trustworthiness (Willemsen, Neijens, & Bronner, 2012). Thus, under conditions where the receiver identifies with the source of the review, heuristic processing is expected, as the content is less important than the identification with the source.

Review content provides readers with varying information that can influence their decisions. Online reviews often include an aggregate rating that displays a percentage of total reviews that are favorable or previous consumers who recommend the product/service. This is a form of base rate information regarding the probability of an event, that is, whether or not the individual will have a good result based on choosing this product. Representativeness explains that people often underutilize base rate information and do not follow principles of probability (Kahneman & Tversky, 1973). Including base rate information can be influential in studying the types of processing. It is postulated that when the base rate is clear, an individual is likely to engage in heuristic processing thereby leading to normative influence. Conversely, if base rate information is ambiguous, subjects may rely more heavily on other sources of information to make their decisions. By relying on other sources of information, it is likely that content attributes will be salient and informational influence will be present.

Different types of content exist in the online environment, including informative content and meaningless content (Sparks et al., 2013), helpful content (Liu & Park, 2015; Zou et al., 2011), and persuasive content (Zou et al, 2011). These different types of content have varying effects on consumer perceptions and decisions. It is postulated that content that contains important aspects of a hotel, such as service, location, rooms, and amenities will be viewed as informative. Informative content requires greater cognitive effort to assess, thus it is expected to lead to systematic processing, thereby leading to informational influence.

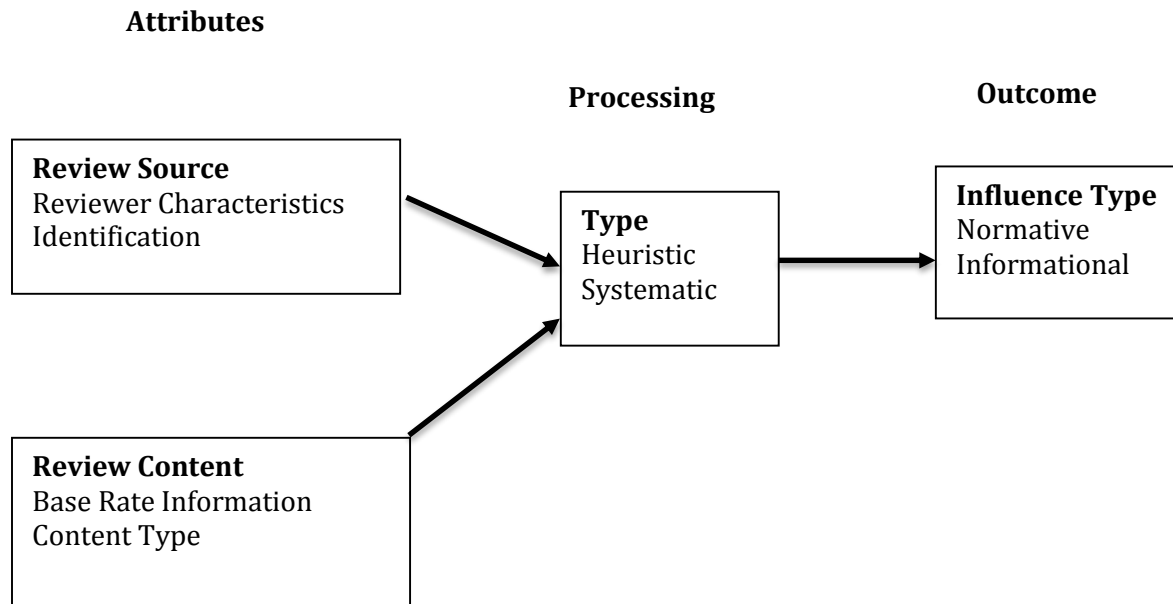


Figure 1. Conceptual framework of study.

Research Hypotheses

This research proposes that different types of processing lead to different types of social influence. Specifically, this research postulates that heuristic processing leads to normative influence and systematic processing leads to informational influence. This research utilizes two separate studies to isolate the variables of interest. Both studies examine how the independent variables affect perceptions and decisions for a hotel stay. The independent variables used in Study 1 are review source attributes listed in the aforementioned conceptual framework.

Expertise was used to manipulate review source, as experts are often believed to be accurate in their assessments and accuracy increases levels of trust (Lee & Youn, 2009). Previous research has used subject-matter experts to denote expertise, such as a culinary expert (Purnawirawan, Dens, & Pelsmacker, 2014). In this study, reviewers that frequently write reviews are used to signify expertise. This was selected, as it is more common than reviews from subject-matter experts. Moreover, this study utilized reviewers as opposed to a spokesperson as readers place

more trust in content posted by a person unconnected to the company (Park, Lee, & Han, 2007). Group membership was used to manipulate identification. In this study, identification was in the form of group membership in an online travel forum.

The independent variables used in Study 2 were review content attributes listed in the framework. Base rate information was manipulated by providing either a clear or ambiguous recommendation percentage. Type of content was manipulated by presenting review content that included or left out important aspects of the hotel. Cognitive processing was manipulated to enlist systematic processing and examine the effects on the outcome variables. Each study contains hypotheses regarding the predicted main effects and interactions. Based on the literature and conceptual framework, the research hypotheses are as follows.

Study 1

Expertise.

Expertise enhances trustworthiness and credibility (Chaiken, 1980) thereby influencing the reader to believe the information provided by an expert is accurate. The increase in trustworthiness and credibility is expected to have a positive effect on likelihood, ratings, and perceptions. Furthermore, since credibility and trustworthiness are pre-requisites to informational influence (Deutsch & Gerard, 1995; Turner, 1991), informational influence is anticipated when expertise is high. Thus, hypotheses 1-4 postulate that expertise will have a positive effect on the dependent variables.

H1: Subjects will be more likely to choose the hotel when reviewers with high expertise write the reviews versus reviewers with low expertise.

H2: Subjects will have higher hotel ratings when reviewers with high expertise write the reviews versus reviewers with low expertise.

H3: Subjects will have higher perceptions of source characteristics when reviewers with high expertise write the reviews versus reviewers with low expertise.

H4: Subjects will experience greater informational influence when reviewers with high expertise write the reviews versus reviewers with low expertise.

Group membership.

Group membership increases the connection that a reader feels with the reviewers, thus it is expected to have a positive effect on likelihood, ratings, and perceptions. Furthermore, group membership is expected to have a positive effect on sense of belonging and identification. Since normative influence is typically found in groups (Deutsch & Gerard, 1955), it is postulated that group membership will lead to normative influence. Hypotheses 5-9 predict that the presence of group membership will have a positive effect on the dependent variables.

H5: Subjects will be more likely to choose the hotel when group membership is present versus when it is not present.

H6: Subjects will have higher hotel ratings when group membership is present versus when it is not present.

H7: Subjects will experience a greater sense of belonging when group membership is present versus when it is not present.

H8: Subjects will identify with the reviewers to a greater extent when group membership is present versus when it is not present.

H9: Subjects will experience greater normative influence when group membership is present versus when it is not present.

It is unclear whether group membership will affect informational influence. Thus, hypothesis 10 postulates that there will be no effect on informational influence.

H10: Subjects will experience the same amount of informational influence when the participant is an active member of the forum versus when he/she is not an active member.

Study 2

Base rate.

Recommendation percentage is used as a form of base rate information, aggregating the percentage of previous guests that recommend the product/service. Clear base rate information can cause an individual to disregard other information and make a decision based solely on the base rate information (Kahneman & Tversky, 1973). Conversely, ambiguous base rate information can increase an individual's cognitive load, thus enlisting them to neglect the base rate information in favor of other easy-to-process information. It is postulated that a clearly favorable base rate will have a positive effect on likelihood and perceptions.

H11: Subjects will be more likely to choose the hotel when base rate information is clearly favorable versus ambiguous.

H12: Subjects will have higher hotel ratings when base-rate information is clearly favorable versus ambiguous.

When base-rate information is clearly favorable, it is postulated to increase normative influence, as a clear percentage of people recommending a hotel would establish a norm. When base rate information is ambiguous, it is postulated to increase informational influence, as individuals are expected to seek out additional information to reduce uncertainty and aid in their decision-making.

H13: Subjects will experience greater informational influence when the base rate is ambiguous versus when it is clearly favorable.

H14: Subjects will experience greater normative influence when the base rate is clearly favorable versus when it is ambiguous.

This research examines the effects of review content attributes on information recall to distinguish the type of information processing that predominates under certain conditions. When base rate is clearly favorable, it is not expected to have an effect on information recall, as individuals will likely go along with the base rate information.

H15: There will not be an effect of base rate on information recall when base rate is clearly favorable.

Content.

This research examines two types of content, informative and uninformative. Informative content typically focuses on key aspects of the product/service (Liu & Park, 2015; Sparks et al., 2013), thus the reviews in this study include details of key aspects of the hotel stay. Uninformative content is vague, whereby the general sentiment is the same, but much less detail is provided. It is postulated that informative content will have a positive effect on likelihood and ratings, as this content is typically viewed as more helpful.

H16: Subjects will be more likely to choose the hotel when content is informative versus uninformative.

H17: Subjects will have higher hotel ratings when content is informative versus when content is uninformative.

Different types of content are postulated to have varying effects on types of social influence. Informative content is expected to increase informational influence as detailed content provides more evidence about reality (Deutsch & Gerard, 1955). It is unclear what role informative content plays in normative influence. Thus, the following hypotheses were derived.

H18: Subjects will experience the same normative influence when content is informative versus uninformative.

H19: Subjects will experience greater informational influence when content is informative versus uninformative.

It is postulated that more detailed information will lead to increased information recall as this type of information is thought to be more salient.

H20: Subjects will be able to recall more information when content is informative versus uninformative.

Cognitive processing.

Cognitive processing was used to motivate a thorough assessment of the review content. In this study, the cognitive processing manipulation included having a rating after each review. By including a cognitive processing manipulation, it is postulated that individuals will pay closer attention to the content in each review, thus enlisting systematic processing. Systematic processing is expected to lead to a higher information recall.

H21: Subjects will be able to recall more information when high cognitive processing is present versus low cognitive processing.

Cognitive processing is expected to bring attention to the content in the reviews, thus an interaction between cognitive processing and content is anticipated. Therefore, an interaction between content and cognitive processing is expected for likelihood, perceptions, and information recall.

H22: The effect of content on likelihood to choose will be higher when high cognitive processing is present versus low cognitive processing.

H23: The effect of content on hotel ratings will be higher when high cognitive processing versus low cognitive processing.

H24: The effect of content on recall will be higher when high cognitive processing is present versus low cognitive processing.

Summary

This chapter discussed the literature relevant to answering the research questions posed in this dissertation. A review of literature, a conceptual framework, and research hypotheses were presented. The following chapter discusses the research design and methodology.

CHAPTER 3

METHODOLOGY

This chapter describes the methods relevant to answering the research questions of this dissertation. This section describes the research design, data collection, and measures that were used to apply the aforementioned framework in answering the research questions. This research utilized two separate experimental designs to isolate variables of interest. In experiments, one or more variables are manipulated to determine the effect on a dependent variable. To ensure proper execution of an experiment, proper controls, manipulations, randomization, and valid measures of the dependent variable are needed (Zikmund, 2003). Each experiment is described in detail in the subsequent sections. Additionally, this research revalidates the measures for normative and informational influence.

Scale Development

Part of this research includes revalidation of a scale that was created by the author to measure situational normative and informational influence. This scale was used to measure the dependent variables of influence type. Additional analysis of the results using Confirmatory Factor Analysis provides further validation for the use of this scale in future research. The following section provides an overview of the scale development methodology based on Churchill's (1979) guidelines.

Stage 1

The first step in this scale development consisted of defining what comprises informational and normative influence. This included examining the definition of each influence type and extending out to see what items fall under these definitions. An extensive review of the literature was conducted to specify the construct domain. The next step included generating a

list of items to capture the domain as specified. All relevant items were included to ensure content validity (Hinkin, 1995), as this is crucial to measurement adequacy (Schriesheim & Hinkin, 1990). The resulting list of items included 32 normative and 20 informational.

Stage 2

After using two separate panels of experts to assess the statements, the final list of 25 normative and 16 informational was used to develop the research instrument and for the first round of data collection. The results of Exploratory Factor Analysis (EFA) with principal component extraction and Varimax rotation revealed two-factors that clearly represented the two influence types. The final solution had strong reliability with a Cronbach's alpha of .972 for normative and .885 for informational and accounted for 68.99% of the cumulative variance (normative=48.40%; informational=20.59%).

Stage 3

After purifying the measurement, a separate data collection was used to validate and refine the scale. The final stage involved finalizing the measurement utilizing CFA. The 13 normative and 8 informational items were simplified to reduce redundant items. The remaining 8 normative and 8 informational items were analyzed with the final results yielding 6 normative and 5 informational scale items. The constructs of normative and informational influence were valid, with composite reliability values greater than .70. The scale also possesses discriminant validity, as the average variance extracted for each type of influence is more than the shared variance between constructs (Fornell & Larcker, 1981). Table 1 displays the *Situational Social Influence* scale items that were used in this research. These items are rated on a 7-point scale of 1 (strongly disagree) to 7 (strongly agree).

Table 1

Situational Social Influence Scale Items

	Normative	Informational
I feel pressure to go along with reviewers' recommendations	0.75	
I go along with what reviewers recommend because I want to identify with them	0.78	
I go along with what the reviewers recommend because I want to avoid their disapproval	0.82	
If reviewers can see what I purchased, I purchase what they expect me to buy	0.87	
I go along with what the reviewers recommend because I want to enhance my own self-image	0.89	
I followed what the reviewers recommended because it is what they expect me to do	0.89	
I seek information from reviewers who have a lot of experience with a travel product		0.55
The information provided by the reviewers influences my opinion of the travel product		0.68
I believe the information in the reviews is accurate		0.74
I believe the people providing the reviews are credible		0.79
I believe the information in the reviews is valid		0.87
Composite Reliability	0.93	0.85
Average Variance Extracted (AVE)	69.61%	53.47%

Note. Normative-Informational relationship: Correlation = .238; Correlation squared = .057.

Study 1

The purpose of study 1 was to examine the source of online reviews to determine how source information can lead to different processing, in turn affecting types of social influence. Specifically, study 1 examined source expertise and group membership to answer this question. The following sections describe the subjects, research design, procedure, stimuli, instrument, and pretesting conducted in study 1.

Subjects

Subjects were comprised of the general traveling consumer population recruited through Qualtrics, an online market research firm. In order to be eligible, subjects had to be at least 18 years old and have spent at least one night in a hotel in the past 12 months. Study 1 included a

total of 201 subjects, as this ensured a minimum of 50 subjects per cell of the design. This provided appropriate statistical power of .80 at the .05 significance level (Cohen, 1992). A demographic profile for both studies is included at the end of this chapter (Table 9).

Design

Study 1 focused on the source of online reviews to examine the conditions in which source information leads to different types of processing, resulting in different types of social influence. This study was designed to test hypotheses 1-10. The study utilized a 2 (expert: high/low) x 2 (group membership: yes/no) between-subjects experimental design, whereby subjects were randomly assigned to one of the four conditions. Table 2 displays the experimental design.

Table 2

Study 1 Experimental Design

Group Membership	Expert	
	High	Low
Yes	50	50
No	50	50

A reviewer who frequently posted online reviews was denoted an expert. Expertise included a contributor level and the number of reviews written by the reviewer. Expertise was manipulated by displaying a high or low “contributor” level (8 and above out of 10 for high; 3 and below out of 10 for low), and a large (36 or more) or a low (3 or less) number of reviews written by the reviewer. Additionally, a badge marked “hotel expert” (Figure 2) was included next to the corresponding review content for the high expertise condition. Group membership

was defined as being a member of an online travel forum. This was manipulated by including different instructions for the subject to assume a role as an unengaged reader or an active member of the forum. The different instructions for each role can be found procedure section.



Figure 2. Hotel expert badge.

Stimuli

The stimuli consisted of a graphic containing information about the hotel, including a fictitious hotel name, a photo and a description. The second graphic included information about the reviewers (a screen name followed by their contributor level, number of reviews, and expert badge), and 6 online reviews. Both graphics were developed by a web designer to mimic a typical online review site. The stimuli are provided in the appendix. The valence of the reviews was moderately positive with pre-test scores for the means of the selected reviews averaging 5.94 on a 7-point scale. This was done so that review valence was not too powerful as this could mask the results of interest.

Procedure

A consent form was displayed at the beginning of the online questionnaire. Subjects had to consent in order to continue with the questionnaire. After providing consent, respondents answered screener questions regarding the number of nights spent in a hotel in the past 12 months, as well as their age. Following the screener questions, the following instructions were displayed to subjects: “You are planning a leisure weekend trip (Friday, Saturday, and Sunday)

to New York City. [Specific instructions regarding the group membership role based on condition]. Please read all the information carefully and answer the questions.” New York City was selected as the destination for this study as it was recently voted the number 1 destination in the U.S. (TripAdvisor, 2016).

For the non-group membership condition, the specific instructions were as follows: “While browsing the Internet in preparation for your trip, you come across Travel Chat, an online travel forum. You have never seen this site before, and you choose not to sign up for the forum. You proceed to read the following reviews posted by forum members about a hotel you are considering for your stay.” For the group membership condition, the specific instructions were as follows: “In preparation for your trip, you log in to Travel Chat to see what your online travel community members are recommending. You have been a member of Travel Chat for three years. You regularly post on the discussion board and enjoy engaging with your fellow forum members. You choose to read reviews posted by your fellow forum members about a hotel you are considering for your stay.” In the group membership condition, subjects were also instructed to enter a screen name that they would use as a member of Travel Chat. Subjects then answered questions related to the dependent variables as well as manipulation checks and demographics.

Instrument

Preliminary steps consisted of reading the consent form and instructions. In step 1, subjects read the hotel information and online reviews. Step 2 contained the primary dependent measures. Subjects rated their likelihood to choose the hotel on a 7-point scale from 1 (extremely unlikely) to 7 (extremely likely). Subjects then rated their perceptions of the hotel by indicating their agreement on a 7-point scale from (strongly disagree) to 7 (strongly agree) for

the following statements: “this hotel is appealing to me”, “this hotel is a good choice for my New York City trip”, “I have a positive impression of this hotel.” Subjects rated credibility, helpfulness, trust, and confidence in the reviewers on 7-point scales. Subjects then answered the scale statements for normative and informational influence. Step 3 consisted of manipulations checks. Step 4 included demographic questions. Table 3 displays a list of the measures used in this research.

Table 3

Study 1 Measures

Dependent Variables	Measurement
Likelihood	How likely are you to choose this hotel for your New York City trip?
Appealing	This hotel is appealing to me.
Good Choice	This hotel is a good choice for my New York City trip.
Positive Impression	I have a positive impression of this hotel.
Credibility	How credible are the reviewers?
Helpful	How helpful are the reviewers?
Trust	I trust the reviewers.
Confidence	I have confidence in the reviewers.
Belonging	To what extent do you feel that you belong to the group of travelers who posted online reviews?
Identification	To what extent do you identify with the reviewers?
Normative Influence	6-items on <i>Situational Social Influence scale</i>
Informational Influence	5-items on <i>Situational Social Influence scale</i>
Manipulation Checks	
Expert	How often do these reviewers post online reviews on this site? To what extent do you consider the reviewers to be experts?
Group Identification	To what extent do you feel like a member of Travel Chat?
Realism	How realistic is the information depicting a New York City hotel?

Pretesting

All study materials were extensively pretested prior to distribution to ensure appropriate independent variables were used in each study. To select the independent variables, separate pretests were conducted using separate samples of respondents, recruited through Qualtrics. Subjects had to be at least 18 years old and have read an online review related to a travel product (hotel, restaurant, cruise, etc.) in the past 6 months. Pretested variables for study 1 included expert and group membership. For expert, a total of 70 subjects ($n=35$ per condition) were provided reviews written by either a high contributor (8 or above out of 10) with a large number of previously written reviews (36 or more) or a low contributor (3 or below out of 10) and a low number of previously written reviews (6 or less). Participants were asked to rate how often the reviewers posted online reviews. Results indicated that there was a significant difference ($F_{1, 69} = 18.13, p=.000$) between the low ($M=4.63$) and high ($M=5.89$) expert group. Participants were also asked the extent to which they considered the reviewers to be experts. Results indicated that the respondents believed the reviewers in the low condition to be less of experts ($M=4.31$) than the high condition ($M=4.86$). Although the difference between the two groups was not statistically significant, ($F_{1, 69} = 3.14, p=.081$), the means were in the right direction. Expertise was strengthened for the main study by including the hotel expert badge as shown in figure 2 for the high expertise condition. The results of the manipulation check of expertise in the main study demonstrate that it was effective.

For group membership, 70 subjects (35 per condition) were provided instructions explaining that he/she was a member of Travel Chat or that he/she was simply reading reviews on Travel Chat. In the member conditions, respondents were asked to enter a screen name they would use as a member of Travel Chat. Participants were asked to rate the effectiveness of the

instructions at explaining their role as members of Travel Chat. The results indicate that there was a difference in effectiveness ratings between the groups, whereby the non-group membership instructions were less effective ($M=5.03$) versus the group membership instructions ($M=5.63$). Although the difference between the two groups was not statistically significant ($F_{1,69} = 3.70, p=.071$), the means were the right direction. Membership was strengthened for the main study by enhancing the wording and salience of the instructions. The results of the manipulation check of this variable in the main study demonstrate that it was effective.

Study 2

The purpose of study 2 was to examine the content of online reviews to determine how review content can lead to different processing, in turn affecting types of social influence. Specifically, study 2 examined base rate information, type of content, and cognitive processing to answer this question. The following sections describe the subjects, research design, procedure, stimuli, instrument, and pretesting conducted in study 2.

Subjects

Subjects were comprised of the general traveling consumer population recruited through Qualtrics, an online market research firm. In order to be eligible, subjects had to be at least 18 years old and have spent at least one night in a hotel in the past 12 months. Study 2 included 286 subjects as this ensured a minimum of 35 subjects per cell of the design. This provided appropriate statistical power of .80 at the .05 significance level (Cohen, 1992).

Design

Study 2 focused on the content of the reviews to examine how different types of content lead to different types of processing, resulting in different types of social influence. Study 2 was designed to test hypotheses 11-24. The study utilized a 2 (recommendation percentage:

clear/ambiguous) x 2 (content: informative/not informative) x 2 (cognitive processing: yes/no) between subjects experimental design, whereby subjects are randomly assigned to one of the 8 conditions. Table 4 displays the experimental design.

Table 4

Study 2 Experimental Design

Experimental Design					
Recommendation Percentage		Clear (95%)		Ambiguous (50%)	
Content		Informative	Uninformative	Informative	Uninformative
Cognitive Processing	High	35	35	35	35
	Low	35	35	35	35

Recommendation percentage was defined as the aggregate percentage of prior guests who recommend the hotel. This was manipulated by providing a base rate recommendation that was clearly favorable (95%) or an ambiguous percentage (50%), accompanied by a smiling face graphic as this mimics the recommendation percentage presentation of popular online travel sites. The recommendation percentage was clearly displayed in the bottom right corner of the hotel room photo. Informative content was defined as content that is specific and relevant. Informative content was manipulated by presenting six reviews that included detailed content on important attributes of a hotel stay (food and beverage, rooms, service, and location). Non-informative content was defined as content that was not specific and not relevant to the hotel stay. Non-informative content did not include detailed content on these areas. Instead, non-informative content included content that was not specific to important attributes of the hotel product or service. This was manipulated by presenting six reviews with non-specific content.

Cognitive processing was defined as including a rating on the level of information after each review. Following each review, subjects rated how informative each review was on a 7-point scale (1=extremely uninformative; 7=extremely informative). This was included as an independent variable in certain conditions to enlist systematic processing.

Stimuli

The stimuli consisted of a graphic containing information about the resort, including a fictitious hotel name, a photo, and a description. The hotel information graphic was developed by a web designer to mimic a typical online review site. All graphics used in this study are included in the appendix. Following the hotel information, six reviews were presented. The reviews either included a rating after or did not depending on the condition. The valence of the reviews was moderately positive with pre-test scores for the means of the selected reviews averaging 5.94 on a 7-point scale. This was done so that review valence was not too powerful as this could mask the results of interest. Tables 5 and 6 display the reviews with their corresponding pre-test scores.

Table 5

Informative Reviews with Pretest Scores

Informative Reviews	M
Location was very good, with Broadway 1 block away, Times Square 3 blocks and Central Park about 10 blocks. Train station was conveniently located right outside the side door of the hotel. The room was very clean, bed was very comfortable, and the staff was helpful in recommending things to do. The restaurant in the hotel had a nice menu, but there are also many options nearby so we did not eat there.	5.96
Great mid-town location--convenient. Restaurants and shows are in walking distance. Facade & lobby are attractive & staff is attentive. The room was spacious, nicely designed and the bathroom is updated.	5.56
Hotel was comfortable and clean. Had a very smooth check in with Aniana! Really enjoyed visiting the restaurant downstairs for breakfast, fantastic service, no waiting, and the staff are very friendly. The hotel is located in a great area, walking distance to many sites. We would stay here again.	5.34
I have stayed in NYC many times and this was by far the most comfortable place to stay and I will definitely come back here again. The standard rooms are larger than any other NY hotel and very clean and comfortable. The location was very convenient to Broadway theatres and by the train station so getting around was easy. The restaurant serves a typical breakfast, which is pretty good, but I recommend checking out the great places nearby. I also found the staff to be very pleasant and helpful throughout our stay.	5.90
This hotel is very well located, near everything you want to see. The windows are sound proof so you aren't bothered with all the noise of the city. Rooms are big and clean. Rodney the bell captain and Nick the front desk employee went above and beyond to make our stay pleasant.	5.22
Fantastic location. Raquel at the front desk was very helpful and ensured I had a smooth and quick check in. All other staff I encountered were very friendly. The lobby bar is a great place for an evening cocktail. Thumbs up overall for location, service, and of course the room-spacious and clear. Couldn't have asked for more. Worth it totally.	5.26

Note: Reviews were rated on a 7-point scale (1=Not at all informative 7= Extremely informative). Reviews with 5.0 and above were designated as informative.

Table 6

Uninformative Reviews with Pretest Scores

Uninformative Reviews	M
We were booked to stay four nights, but ended up staying 6 as our flight home got cancelled twice due to a major snowstorm. Even though we were disappointed to not head back home, it was nice that the hotel staff helped us arrange to stay in the same room. I would stay here again if we made another trip to NYC.	4.16
My adult son and I were in New York for several days for some much needed leisure time, and we wanted to do as many things as possible to get the most out of the trip. Due to ongoing flight delays, by the time we checked into the hotel, we were frustrated, tired, and hungry. Once we got to the hotel, we were able to quickly check in and head to the room to relax. We ended up having a great trip and we loved staying here. Everything was great.	4.10
Myself and my friend stayed here and we had a great time here. Walking distance to amazing cafes and delis-had the best lox and bagel ever at Murray's. Everything went smooth and I'd stay here again.	4.08
We arrived at about 3pm after what had been a very long day of travelling from England. We were quickly checked in so we could rest. The following morning we got to explore the city--hitting all the tourist spots. All members of the staff were lovely. We can't wait to return to NYC!	4.04
We moved to this hotel as our previous one was too noisy. I realize it is New York, but we could not sleep at the previous hotel with all the noise. Thankfully this hotel was much better. Great place to stay.	4.10
This hotel is in a great location easy access to the most popular attractions and sites minutes away from the famous Broadway and Times Square lights. The lights are just cultivating and simply breath taking!	4.26

Note: Reviews were rated on a 7-point scale (1=Not at all informative 7= Extremely informative). Reviews with 4.5 and below were designated as uninformative.

Procedure

A consent form was displayed at the beginning of the online questionnaire. Subjects had to consent in order to continue with the questionnaire. After providing consent, respondents answered screener questions regarding number of nights spent in a hotel in the past 12 months, as well as their age. Following the screener questions, the following instructions were displayed

to subjects: “You are planning a leisure weekend trip (Friday, Saturday, and Sunday) to New York City. Please read all the information carefully and answer the questions.” New York City was selected as the destination for this study as it was recently voted the number 1 destination in the U.S. (TripAdvisor, 2016). Subjects then answered questions related to the dependent variables and manipulation checks and demographics.

Instrument

Preliminary steps consisted of reading the consent form and instructions. In step 1, subjects read the hotel information and online reviews. Step 2 contained the primary dependent measures. Subjects rated their likelihood to choose the hotel on a 7-point scale from 1 (extremely unlikely) to 7 (extremely likely). Subjects rated their perceptions of the hotel by indicating their agreement on a 7-point scale from (strongly disagree) to 7 (strongly agree) for the following statements: “this hotel is appealing to me”, “this hotel is a good choice for my New York City trip”, “I have a positive impression of this hotel.” Subjects then answered the scale statements for normative and informational influence. A question prompting respondents to list 5 items mentioned in the reviews was included to measure information recall. Step 3 consisted of manipulations checks. Step 4 contained demographic questions. Table 7 displays the measures used in this research. A demographic profile for the two samples is displayed in table 8.

Table 7

Study 2 Measures

Dependent Variables	Measurement
Likelihood	How likely are you to choose this hotel for your New York City trip?
Appealing	This hotel is appealing to me.
Good Choice	This hotel is a good choice for my New York City trip.
Positive Impression	I have a positive impression of this hotel.
Cognitive Processing	How informative is the content in this review?
Recall	Please list 5 items mentioned in the reviews.
Normative Influence	6-items on <i>Situational Social Influence scale</i>
Informational Influence	5-items on <i>Situational Social Influence scale</i>
Manipulation Checks	
Informative Content	Overall, how informative is the content in the reviews?
Recommendation Percentage	Out of 10, how many reviewers recommend this hotel?
Favorability	Overall, how favorable are the reviews?
Realism	How realistic is the information depicting a New York City hotel?

Pretesting

All study materials were extensively pretested prior to distribution to ensure appropriate independent variables were used in each study. To select the independent variables, separate pretests were conducted using separate samples of respondents, recruited through Qualtrics. Subjects had to be at least 18 years old and have read an online review related to a travel product (hotel, restaurant, cruise, etc.) in the past 6 months.

Pretested variables for study 2 included content and recommendation percentage. For content, 50 subjects were provided 32 reviews and asked to rate each review on the level of information contained in the review (1=not at all informative; 7=extremely informative). Reviews with scores above 5 were designated as informative. Reviews with scores below 4.5 were designated as uninformative. Tables 5 and 6 display the reviews and their corresponding

pre-test scores. A separate sample of 50 respondents rated the same 32 reviews on favorability (1=extremely unfavorable; 7=extremely favorable). This was done to ensure valence was consistent across the selected reviews to avoid a confounding issue with favorability. For recommendation percentage, a separate sample of 63 respondents (n=31-32 per condition) was provided either a clear (90%) or ambiguous (65%) recommendation percentage next to a series of 8 reviews. Subjects were asked how favorable people were who stayed at this hotel (1=extremely unfavorable; 7=extremely favorable). Results indicate that subjects found people to be more favorable when the recommendation percentage was clear ($M=6.53$) versus ambiguous ($M=6.13$). Although the difference between groups was not significant ($F_{1, 62} = 2.80, p=.099$), the means were in the right direction. The recommendation percentages were strengthened for the main study (clear=95%; ambiguous=50%) and manipulation checks demonstrated that these were effective. Subjects were also asked to select how many guests out of 10 recommend the hotel. Results indicated that the recommendation percentage was effective as the majority of respondents selected the correct corresponding number.

Table 8

Demographic Profile

Characteristic	Study 1 ^a %	Study 2 ^b %
Gender		
Male	26.1	33.6
Female	73.9	66.4
Age		
18-21	5.4	3.5
22-30	28.4	14.3
31-40	25.5	21.7
41-50	16.7	21.7
51-60	13.7	21.0
Over 60	10.3	17.8
Annual household income		
< \$50,000	43.1	38.1
\$50,000-\$74,999	25.0	24.5
\$75,000-\$99,999	19.1	22.0
\$100,000-\$125,000	5.9	6.6
>\$125,000	6.9	8.7
Education		
Less than High School	2.5	3.1
High School Diploma	42.2	36.0
Associate's degree	17.6	20.3
Bachelor's degree	28.4	29.4
Graduate degree	9.3	11.2

Note. ^a = 201; ^b = 286.

Overview of Analysis

To analyze the data, SPSS version 22 and AMOS version 22 were used. A CFA was conducted in both studies to revalidate the influence dimensions. A series of ANOVAs was conducted on the dependent measures to determine differences between groups. Null hypotheses were rejected if results were significant (below or equal to .05). If the results were not significant, the null hypotheses failed to be rejected. For types of social influence, the items within each factor were averaged into single constructs (Hair, Black, Babin, & Anderson, 2010). Simple effects were used to analyze significant interactions to determine the effects of one of the

independent variables at a fixed level of another independent variable. Effect sizes were examined according to Cohen's (1992) guidelines.

Limitations-Error, Validity and Reliability

There are potential limitations and errors that should be addressed. This research has potential for error from the participant perspective and the instrument perspective. First, response bias could exist if the respondents give incorrect information or do not answer all the questions. To avoid this, timing controls filters were used to ensure respondents are engaged in participation. Additionally, a forced response designation was added to all questions. Therefore, the respondents had to answer each question in order to complete the survey. Possible internal validity threats include inadequate manipulations. However, pre-testing was conducted and manipulation checks were included to assess the strength of the manipulations to ensure each was adequate. The measures for types of influence used in this research were re-validated using CFA, thereby reducing measurement error. External validity is a concern, as the results of this research may not generalize to other populations or segments. Future research can replicate the results of this research using other contexts, in hospitality and retail.

Summary

This chapter discussed the methodology for this study. The methodology of this study was explained in terms of each study's research questions and hypotheses, research design, sample, stimuli, procedures, instrument, pretesting and analysis. The results of the application of these methods are discussed in the next chapter.

CHAPTER 4

RESULTS

This chapter presents the results of each study. This chapter is organized by study and includes a detailed review of the results for each dependent variable. This research proposed that different characteristics of review source (study 1) and review content (study 2) lead to different types of informational processing and social influence. This chapter will provide an explanation of hypotheses support for each study.

Study 1: Review Source

The first study examined characteristics of review source, including expertise and group membership, to investigate the role of online review source on likelihood to choose, perceptions, and types of social influence. The following sections are organized according to the dependent variables.

Likelihood and Ratings

A 2 (expertise) x 2 (group membership) ANOVA was performed on ratings of likelihood to choose the hotel for their New York City trip. The effect of group membership was not significant ($F_{1, 200} = .422$ $p=.517$). The effect of expertise was also not significant ($F_{1, 200} = 1.35$, $p=.246$). Thus, hypotheses 1 and 5 were not supported. Hotel evaluations were analyzed using a 2 (expertise) x 2 (group membership) ANOVA on the three ratings of appealing, good choice, and positive impression. The analysis revealed no significant main effects of group membership or expertise on appealing or positive impression. A main effect of group membership on good choice was also not significant. Thus, hypothesis 6 was not supported. There was a significant main effect of expertise on good choice ($F_{1, 200} = 3.78$, $p=.053$), indicating that ratings of good choice were higher when expertise was low ($M=6.34$) versus high ($M=6.07$). This finding is in

contrast to hypothesis 2, which postulated that ratings would be higher when reviewers had higher expertise. Thus, hypothesis 2 is not supported. The mean ratings and significance tests are displayed in Table 9. Effect sizes are displayed for significant results only.

Table 9

Study 1 Main Effects for Likelihood and Ratings

Dependent Variable	Independent Variables		F _(1,285)	Effect Size
	Group Membership			
	No	Yes		
Likelihood	5.91	6.02	.422	-
Appealing	6.17	6.20	.046	-
Good Choice	6.23	6.18	.168	-
Positive Impression	6.34	6.41	.353	-
	Expertise			
	Low	High		
Likelihood	6.06	5.87	1.35	-
Appealing	6.28	6.09	1.84	-
Good Choice	6.34	6.07	3.78*	.019
Positive Impression	6.43	6.32	.85	-

Note: *p≤.05.

Source Characteristics

A 2 (expertise) x 2 (group membership) ANOVA was performed on ratings of credibility, helpfulness, trust, and confidence. There was no effect of group membership on credibility ($F_{1, 200} = .119, p=.730$), nor was there an effect of expertise on credibility ($F_{1, 200} = 1.15, p=.284$). There was also no effect of group membership on helpfulness ($F_{1, 200} = .588, p=.444$), nor was there an effect of expertise on helpfulness ($F_{1, 200} = .823, p=.365$). There was no effect of group membership on trust ($F_{1, 200} = 2.60, p=.610$), or confidence ($F_{1, 200} = 1.19, p=.278$). There was also no effect of expertise on trust ($F_{1, 200} = 1.90, p=.171$), or confidence ($F_{1, 200} = .439, p=.508$). Thus, hypothesis 3 was not supported. Table 11 displays the mean ratings and significance tests.

Table 10

Study 1 Main Effects for Source Characteristics

Dependent Variable	Group Membership		$F_{(1,200)}$
	No	Yes	
Credibility	5.70	5.75	.12
Helpfulness	6.12	6.22	.59
Trust	5.46	5.55	.26
Confidence	5.51	5.71	1.19
Dependent Variable	Expertise		$F_{(1,200)}$
	Low	High	
Credibility	5.64	5.81	1.15
Helpfulness	6.10	6.23	.82
Trust	5.38	5.63	1.90
Confidence	5.55	5.67	.44

Types of Influence

A 2 (group membership) x 2 (expertise) ANOVA was performed on normative and informational influence. There was no main effect for group membership on normative influence ($F_{1,200} = 1.04, p=.308$). Thus, hypothesis 9 was not supported. There was also no main effect for expertise on normative influence ($F_{1,200} = 1.61, p=.206$). Although no main effects were found on normative influence, there was a main effect of group membership on sense of belonging to the group ($F_{1,200} = 14.12, p=.000$), whereby belonging was higher when group membership was present ($M=5.32$) versus not ($M=4.45$). Thus, hypothesis 7 was supported. There was no effect

of expertise on belonging ($F_{1, 200} = .454, p=.501$). There was also a main effect of group membership on identification with the group ($F_{1, 200} = 3.93, p=.049$), whereby identifying with the group was higher when group membership was present ($M=5.34$) versus not ($M=4.93$). Thus, hypothesis 8 was supported. There was a significant main effect for group membership on informational influence ($F_{1, 200} = 4.13, p=.043$), indicating that informational influence was higher when group membership was present ($M=5.79$) versus not ($M=5.48$). This is inconsistent with the predicted effect in hypothesis 10, which suggested that group membership would not have an effect on informational influence. There was no effect for expertise on informational influence ($F_{1, 200} = .043, p=.835$), thus hypothesis 4 was not supported.

Table 11

Study 1 Main Effects for Social Influence

Influence Type	Group Membership		$F_{(1,200)}$	Effect Size
	No	Yes		
Normative	3.02	3.25	1.04	-
Informational	5.48	5.79	4.13*	.021
	Expertise		$F_{(1,200)}$	Effect Size
	Low	High		
Normative	2.99	3.29	1.61	-
Informational	5.62	5.65	.04	-

Note: * $p<.05$

Confirmatory Factor Analysis

Confirmatory Factor Analysis (CFA) was performed using AMOS version 22, following procedures recommended by Hair, Black, Babin, & Anderson (2010). The CFA was used to revalidate the social influence measures used in this study. Results indicate that the model fit was good (chi-square=116.423 with $df=43$, $p<.0001$, normed chi-squared=2.708; CFI=.953, RMSEA=.092). With a sample size less than 250 and 12-29 variables, CFI should be .95 or higher, and RMSEA should be a minimum of .08 (Hair et al, 2010). Normed chi-square should be below 3:1 as this indicates a better fitting model. The final step included validity and reliability checks. The amount of variance captured by a factor was measured by the average variance extracted estimate (AVE). AVE is used to determine convergent validity. For newly developed scales, the values should be greater than 45% (Netemeyer, Bearden, & Sharma, 2003). Both factors exceeded the minimum value, as displayed in Table 12. Thus, the scale possesses convergent validity. For discriminant validity, AVE values must exceed the square multiple correlations (SMC) between constructs. Normative and informational measures were correlated at .452 (SMC=.204) providing strong evidence of discriminant validity. Composite reliability scores were computed and both factors had scores above .7 (normative=.93 and informational=.87), indicating good internal consistency for each measure. Thus the scale possesses convergent and discriminant validity, and is internally reliable.

Table 12

Study 1 Scale Revalidation

	Normative	Informational
If reviewers can see what I purchased, I purchase what they expect me to buy	.79	
I go along with what reviewers recommend because I want to identify with them	.82	
I feel pressure to go along with reviewers' recommendations	.83	
I go along with what the reviewers recommend because I want to enhance my own self-image	.85	
I go along with what the reviewers recommend because I want to avoid their disapproval	.87	
I followed what the reviewers recommended because it is what they expect me to do	.87	
I seek information from reviewers who have a lot of experience with a travel product		.57
The information provided by the reviewers influences my opinion of the travel product		.67
I believe the people providing the reviews are credible		.78
I believe the information in the review is valid		.88
I believe the information in the reviews is accurate		.89
Composite Reliability	0.93	0.87
Average Variance Extracted (AVE)	70.49%	58.90%

Note: Normative-Informational relationship: Correlation=.452; Correlation squared=.204

Manipulation Checks

Manipulation checks were conducted to measure the effectiveness of the independent variables. For expertise, subjects were asked how often the reviewers posted reviews (1=never; 7=frequently). A one-way ANOVA was conducted to measure the effect of expertise on how often reviewers posted. There was a main effect of expertise on how often ($F_{1, 200} = 7.36$, $p=.007$), indicating that subjects perceived the reviewers as posting more frequently in the high expertise condition ($M=5.64$) versus the low expertise condition ($M=5.16$). Respondents were also asked to rate the extent that they considered the reviewers to be experts (1=definitely are not experts; 7=definitely are experts). A one-way ANOVA was conducted to measure the effect of

expertise on expert perceptions. There was a main effect of expertise on experts ($F_{1, 200} = 8.86$, $p=.003$), indicating that subjects perceived the reviewers to be experts to a greater extent in the high expertise condition ($M=4.96$) versus the low expertise condition ($M=4.41$). For group membership, subjects were asked the extent that they felt like a member of the group (1=not at all; 7=completely). A one-way ANOVA was conducted to measure the effect of group membership on member. There was a main effect of group membership on member ($F_{1, 200} = 17.59$, $p=.000$), indicating that subjects felt more like a member of Travel Chat when group membership was present ($M=5.39$) versus not ($M=4.41$). Thus, all manipulations were effective for both expertise and member type. Last, subjects were asked to rate the realism of the scenario depicting a New York City hotel. The mean for realism was 5.58 on a 7-point scale, indicating that subjects perceived the scenario as realistic. Table 14 displays the means and significance tests of the manipulation checks.

Table 13

Manipulation Checks

Variable	Group Membership		$F_{(1,200)}$	Effect Size
	No	Yes		
Member	4.41	5.39	17.79***	.08
	Expertise		$F_{(1,200)}$	Effect Size
	Low	High		
Often	5.16	5.64	7.36**	.04
Expert	4.41	4.96	8.86**	.04

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

Study 2: Review Content

The second study examined characteristics of review content, including recommendation percentage, type of content and cognitive processing to investigate the role of online review content on likelihood to choose, perceptions, types of social influence, and types of cognitive processing. The following sections are organized according to the dependent variables.

Likelihood and Ratings

A 2 (base rate) x 2 (content) x 2 (cognitive processing) ANOVA was performed on ratings of likelihood to choose the hotel for their New York City trip. The effect of base rate was not significant ($F_{1, 285} = 1.69$ $p=.195$). Thus, hypothesis 11 was not supported. The effect of content was also not significant ($F_{1, 285} = .082$, $p=.775$) and hypothesis 16 was not supported. There was a significant main effect for cognitive processing ($F_{1, 285} = 7.26$, $p=.007$) indicating that likelihood was higher when subjects did not rate the level of information after each review ($M=6.18$) versus when they did rate after each review ($M=5.84$). There was no interaction between content and rating after ($F_{1, 285} = 1.85$ $p=.175$), thus hypothesis 22 was not supported.

Hotel evaluations were analyzed using a 2 (base rate) x 2 (content) x 2 (cognitive processing) ANOVA on the three ratings of appealing, good choice, and positive impression. The analysis revealed a significant main effect of base rate on appealing ($F_{1, 285} = 3.90$, $p=.049$), indicating that ratings were higher when recommendation percentage was clear at 95% ($M=6.30$) versus when it was ambiguous at 50% ($M=6.06$). There was also a significant interaction between content and cognitive processing on appealing ($F_{1, 285} = 4.40$, $p=.037$). Follow up tests indicated that when content is uninformative, there was a significant effect for cognitive processing ($F_{1, 142} = 11.85$, $p=.001$) whereby ratings for appealing were lower when high

cognitive processing was present. When content was informative, there was no significant effect for cognitive processing ($F_{1, 142} = .019, p=.890$). Figure 3 displays the interaction.

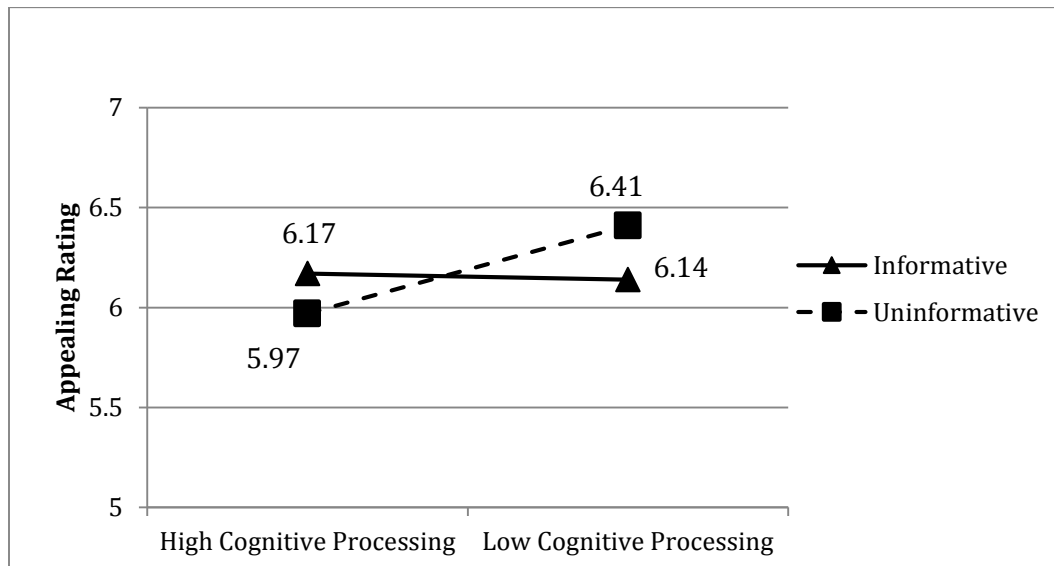


Figure 3. Content x cognitive processing interaction on appealing.

Note: Dashed line indicates significance at $p=.001$.

A main effect of base rate on good choice was not significant ($F_{1, 285} = 2.02, p=.156$). A main effect of content on good choice was not significant ($F_{1, 285} = .304, p=.582$) nor was cognitive processing on good choice ($F_{1, 285} = 3.18, p=.076$). However, there was a significant three-way interaction between base rate, content, and cognitive processing. Follow up tests indicate that when base rate is ambiguous (50%) there is no main effect on content or cognitive processing, however there is a significant interaction between content and cognitive processing on good choice ($F_{1, 141} = 5.67, p=.019$). Follow up tests on this interaction indicate that when base rate is ambiguous and content is uninformative, there is a main effect of cognitive processing on good choice ($F_{1, 70} = 10.01, p=.002$), indicating that ratings of good choice are higher when there is no cognitive processing ($M=6.41$) versus when there is high cognitive processing ($M=5.87$). This finding partially supports hypothesis 23. The simple interaction

effect of content type and cognitive processing when base rate is ambiguous is displayed in Figure 4.

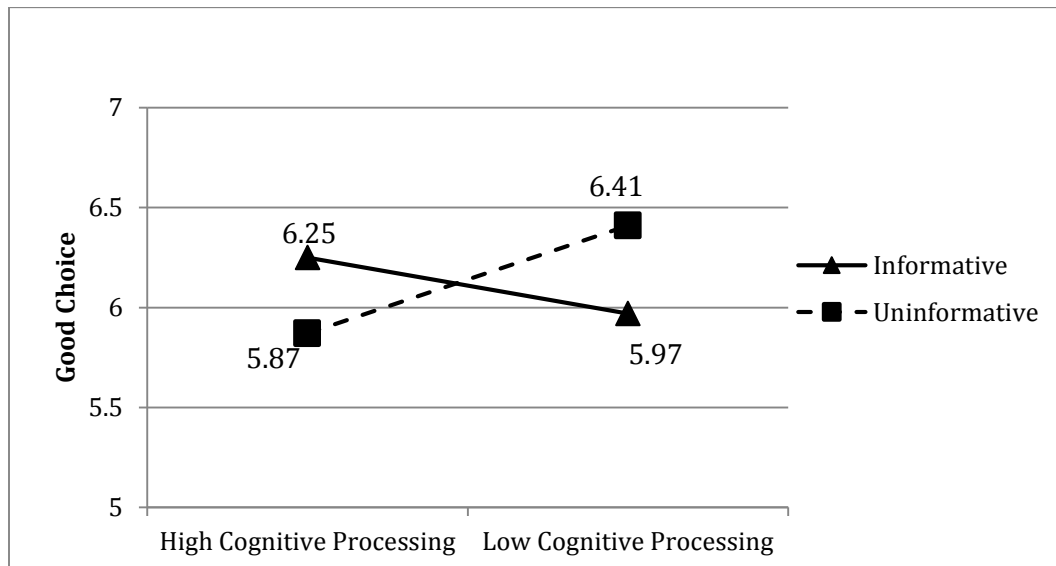


Figure 4. Content x cognitive processing with ambiguous base rate.

Note: Dashed line indicates significance at $p=.05$.

There was a main effect of base rate on the rating of positive impression ($F_{1, 285} = 4.51$, $p=.035$), whereby ratings were higher when the base rate was high ($M=6.51$) versus low ($M=6.30$). Thus, hypothesis 12 was partially supported. There was no significant interaction, thus hypothesis 23 was partially supported. The mean ratings and significance tests are displayed in Table 14.

Table 14

Study 2 Main Effects for Likelihood and Ratings

Dependent Variable	Independent Variables		F _(1,285)	Effect Size
Base Rate				
	Ambiguous	Clear		
Likelihood	5.93	6.09	1.69	-
Appealing	6.06	6.30	3.90*	.01
Good Choice	6.14	6.30	2.02	-
Positive Impression	6.30	6.51	4.51*	.01
Content				
	Uninformative	Informative		
Likelihood	5.99	6.03	.08	-
Appealing	6.19	6.15	.15	-
Good Choice	6.19	6.25	.30	-
Positive Impression	6.42	6.37	.18	-
Cognitive Processing				
	Low	High		
Likelihood	6.18	5.84	7.60**	.03
Appealing	6.28	6.07	3.38	-
Good Choice	6.32	6.12	3.18	-
Positive Impression	6.49	6.30	3.09	-

Note: * $p < .05$; ** $p < .01$.

Types of Influence

A 2 (base rate) x 2 (content) x 2 (cognitive processing) ANOVA was performed on normative and informational influence. There were no main effect for base rate on normative influence ($F_{1, 285} = 1.18$, $p = .489$), thus hypothesis 14 was not supported. There was also no main effect for content on normative influence ($F_{1, 285} = .028$, $p = .867$), thus hypothesis 18 was supported. No main effect was found for cognitive processing on normative influence ($F_{1, 285} = .315$, $p = .575$). There was no main effect for base rate on informational influence ($F_{1, 285} = .093$, $p = .761$). There was also no main effect for content on informational influence ($F_{1, 285} = .416$, $p = .520$), thus hypothesis 19 was not supported. There was no main effect for cognitive

processing on informational influence ($F_{1, 285} = 3.12$ $p = .078$). There are no interactions to report on either type of influence. Table 15 displays the mean ratings and significance tests for types of social influence.

Table 15

Study 2 Main Effects for Social Influence

Base Rate			$F_{(1,285)}$
Influence Type	Ambiguous	Clear	
Normative	2.84	2.96	.48
Informational	5.60	5.63	.09
Content			$F_{(1,285)}$
	Uninformative	Informative	
Normative	2.91	2.88	.03
Informational	5.65	5.59	.42
Cognitive Processing			$F_{(1,285)}$
	Low	High	
Normative	2.85	2.95	.32
Informational	5.70	5.53	3.12

Confirmatory Factor Analysis

Confirmatory Factor Analysis (CFA) was performed using AMOS version 22, following procedures recommended by Hair et al, 2010. The CFA was used to revalidate the social influence measures used in this study. Results indicate that the model fit was good (chi-square=112.452 with $df=43$, $p<.0001$, normed chi-squared=2.62; CFI=.955, RMSEA=.075). According to Hair et al. (2010), CFI should be .95 or higher, and RMSEA should be a minimum of .08. Normed chi-square should be below 3:1 as this indicates a better fitting model. The final step included validity and reliability checks. The amount of variance captured by a factor was measured by the average variance extracted estimate (AVE). AVE is used to determine convergent validity. For newly developed scales, the values should be greater than 45% (Netemeyer et al., 2003). Both factors exceeded the minimum value, as displayed in Table 16. Thus, the scale possesses convergent validity. For discriminant validity, AVE values must exceed the square multiple correlations (SMC) between constructs. Normative and informational measures were correlated at .235 (SMC=.055) providing strong evidence of discriminant validity. Composite reliability scores were computed and both factors had scores above .7 (normative=1.17 and informational=.85), indicating good internal consistency for each measure. Thus the scale possess convergent and discriminant validity, and is internally reliable.

Table 16

Study 2 Scale Revalidation

	Normative	Informational
If reviewers can see what I purchased, I purchase what they expect me to buy	.76	
I feel pressure to go along with reviewers' recommendations	.72	
I go along with what reviewers recommend because I want to identify with them	.79	
I go along with what the reviewers recommend because I want to enhance my own self-image	.83	
I go along with what the reviewers recommend because I want to avoid their disapproval	.81	
I followed what the reviewers recommended because it is what they expect me to do	.80	
I seek information from reviewers who have a lot of experience with a travel product		.49
The information provided by the reviewers influences my opinion of the travel product		.51
I believe the people providing the reviews are credible		.79
I believe the information in the review is valid		.80
I believe the information in the reviews is accurate		.82
Composite Reliability	.91	.82
Average Variance Extracted (AVE)	61.77%	49.04%

Note: Normative-Informational relationship: Correlation=.241; Correlation squared=.058.

Recall

The recall measures used in this study included a score for accuracy, a score for how many recall items were content related and how many were non-content related. An accuracy score for information recall was calculated by the researcher to determine the accuracy of the information provided by each respondent. Each recall accuracy score was based out of 5. A 2 (base rate) x 2 (content) x 2 (cognitive processing) ANOVA was performed on the accuracy of information recall. There was a main effect for base rate on accuracy ($F_{1, 285} = 7.46, p = .007$), whereby recall information was more accurate when the base rate was clear ($M = 4.47$) versus ambiguous ($M = 4.05$). This finding is inconsistent of the effect expected in hypothesis 15; thus

hypothesis 15 is not supported. There was also a main effect for content on accuracy ($F_{1, 285} = 5.25, p=.023$), whereby accuracy was higher when content was informative ($M=4.43$) versus uninformative ($M=4.08$). There was no main effect for cognitive processing ($F_{1, 285} = .570, p=.451$). There was not a significant interaction between base rate and content on recall accuracy ($F_{1, 285} = 2.73, p=.099$).

The researcher calculated content-related recall scores for each respondent. Each content-related recall score was based out of 5. A 2 (base rate) x 2 (content) x 2 (cognitive processing) ANOVA was performed on the content-related recall. There was a main effect for base rate on content-related recall ($F_{1, 285} = 20.25, p=.000$), whereby content-related recall was higher when base rate was clear ($M=3.48$) versus ambiguous ($M=2.74$). There was also a main effect for content on content-related recall ($F_{1, 285} = 135.86, p=.000$), whereby content-related recall was higher when content was informative ($M=4.07$) versus uninformative ($M=2.15$). There was no main effect for cognitive processing ($F_{1, 285} = .175, p=.676$). There was a significant interaction between base rate and content ($F_{1, 285} = 20.12, p=.000$). Follow-up tests indicate that when content is uninformative, there is an effect of base-rate ($F_{1, 141} = 43.45, p=.000, \eta^2=.236$), whereby content-related recall is higher when base-rate is clear ($M=2.89$) versus ambiguous ($M=1.41$). Figure 5 displays the results of this interaction.

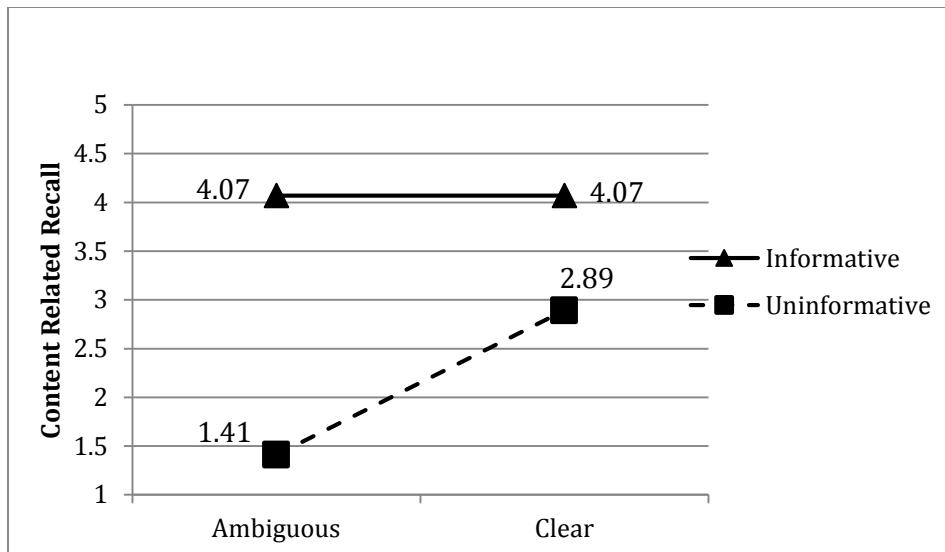


Figure 5. Content x base rate interaction on content-related recall.

Note: Dashed line indicates significance at $p < .001$.

The researcher calculated non-content related scores for each respondent. Each non-content related score was based out of 5. A 2 (base rate) x 2 (content) x 2 (cognitive processing) ANOVA was performed on non-content related recall. There was a main effect of base rate on non-content related recall ($F_{1, 285} = 10.51, p = .001$), whereby non-content related recall was higher when base rate was ambiguous ($M = 1.83$) versus clear ($M = 1.34$). There was also a main effect of content ($F_{1, 285} = 167.756, p = .000$), whereby non-content related recall was higher when content was uninformative ($M = 2.55$) versus informative ($M = .614$). There was no main effect for cognitive processing ($F_{1, 285} = .007, p = .933$). There was a significant interaction between base rate and content ($F_{1, 285} = 33.64, p = .000$). Follow-up tests reveal that when content is uninformative, there is an effect of base rate ($F_{1, 141} = 30.41, p = .000, \eta^2 = .177$), whereby non-content related recall was higher when base rate was ambiguous ($M = 3.23$) versus clear ($M = 1.88$). Figure 6 displays the results of this interaction. In all of the recall measures, an interaction between content and cognitive processing was not found. Thus, hypothesis 24 was not supported. Table 17 displays the means and significance tests for information recall.

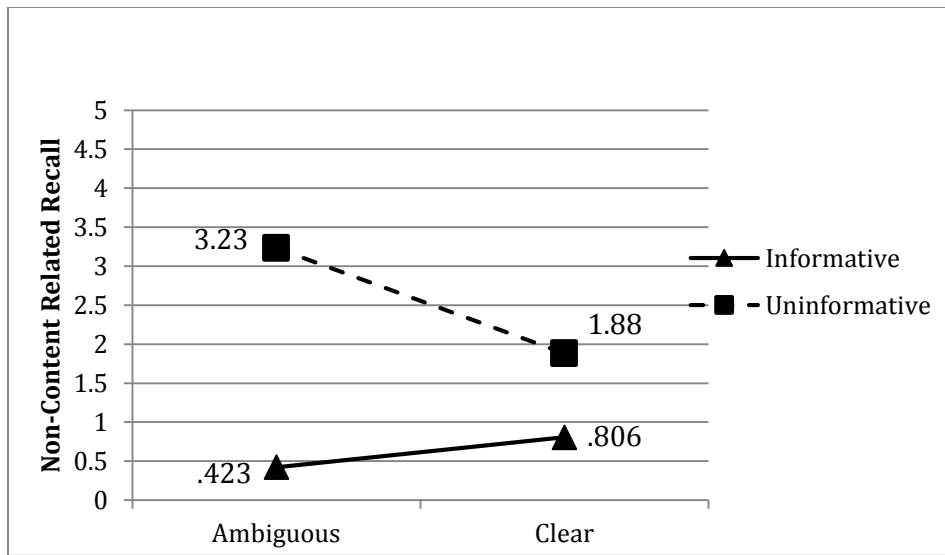


Figure 6. Content x base rate on non-content related recall.

Note: Dashed line indicates significance at $p < .001$; solid line indicates significance at $p < .05$.

Table 17

Main Effects for Information Recall

Dependent Variable	Base Rate		F _(1,285)	Effect Size
	Ambiguous	Clear		
Accuracy	4.05	4.47	7.46**	.03
Content Related	2.74	3.48	20.25***	.07
Non-Content Related	1.83	1.34	10.51***	.04
Dependent Variable	Content		F _(1,285)	Effect Size
	Uninformative	Informative		
Accuracy	4.08	4.43	5.25*	.02
Content Related	2.15	4.07	135.85***	.33
Non-Content Related	2.55	.614	167.76***	.38
Dependent Variable	Cognitive Processing		F _(1,285)	Effect Size
	Low	High		
Accuracy	4.20	4.31	.57	.00
Content Related	3.07	3.14	.18	.00
Non-Content Related	1.58	1.59	.01	.00

Note: *p<.01; **p<.05, ***p≤.001.

Manipulation Checks

Manipulation checks were conducted to measure the effectiveness of the independent variables. For content type, subjects were asked to rate how informative the overall set of reviews was (1=extremely uninformative; 7=extremely informative). A one-way ANOVA was

conducted to measure the effect of content on informativeness. There was a main effect of content on informativeness ($F_{1,285} = 18.60, p=.000$), indicating that subjects perceived the content as more informative when information about important attributes was included ($M=6.11$) versus when this information was not included ($M=5.57$). Respondents were also asked to rate how favorable the reviews were (1=extremely unfavorable; 7=extremely favorable). This was done to ensure favorability was not a confounding variable as this could mask the results. A one-way ANOVA was conducted to measure the effect of content on favorability. The results indicate that there was not a significant main effect of content on favorability ($F_{1,285} = 1.16, p=.282$). Thus, favorability was not a confounding factor. The results of the manipulation check for base-rate were unclear due to measurement error. This error is discussed in the next chapter as a limitation. In the ambiguous condition, 21 out of 142 respondents selected the correct value for a base-rate of 50%. In the clear condition, 16 out of 144 selected the correct value for a base-rate of 95%. Despite the low number of accurate responses, there were several responses close to the correct values in both conditions. The mean for realism was 5.74 on a 7-point scale, indicating that subjects perceived the scenario as realistic. Table 18 displays the means and significance test of the manipulation check for content.

Table 18

Study 2 Manipulation Check for Content

	Content		$F_{(1,285)}$	Effect Size
	Uninformative	Informative		
Informativeness	5.57	6.11	18.60***	.061

Note: *** $p<.000$.

Summary

The results of this research reveal support for some hypotheses. Those without support provide interesting insights that will be further examined in the following chapter. Confirmatory Factor Analysis (CFA) was done in both studies to revalidate the social influence measures. The results indicate that the measures are reliable and valid. Further discussion of the findings, as well as implications and concluding thoughts are presented in Chapter 5.

CHAPTER 5

DISCUSSION AND CONCLUSIONS

This chapter presents the major implications of the findings of this two-study dissertation research. Both studies examined the online purchasing environment using theoretical underpinnings from the domains of social influence and judgmental heuristics to understand the underlying cognitive and psychological processes taking place in the presence of online customer reviews. The results provide meaningful insights into the phenomenon of online reviews. A discussion of the findings for each study is presented. Next, theoretical and practical implications of this research are suggested. Last, this chapter concludes with a discussion of the study limitations and recommendations for future research.

Discussion of Findings

The purpose of both studies was to examine characteristics of online reviews to determine what characteristics affect consumer perceptions and under which conditions the two types of social influence manifest. Two separate experiments were conducted to isolate the variables of interest. Both experiments were conducted using separate samples of the general traveling population. Study 1 examined source characteristics of expertise and group membership on consumer perceptions and types of social influence. Study 2 examined content characteristics including base rate information, content type, and cognitive processing on consumer perceptions, information recall, and types of social influence. Data analysis using ANOVAs and confirmatory factor analysis (CFA) to revalidate the measures was conducted in each study.

Study 1

Table 19 displays the support for hypotheses in study 1.

Table 19

Study 1 Hypotheses Support

Hypotheses	Dependent Variable	Predicted Effect	Supported
1	Likelihood	E	N
2	Hotel Ratings	E	N
3	Source Characteristics	E	N
4	Informational Influence	E	N
5	Likelihood	M	N
6	Hotel Ratings	M	N
7	Belonging	M	Y
8	Identification	M	Y
9	Normative Influence	M	N
10	Informational Influence	M	N

Note: E=expertise; M=group membership.

Consumer Perceptions

The results of study 1 reveal limited evidence of review source characteristics of expertise and group membership on likelihood to choose and perceptions. These findings suggest that source expertise and group membership may not necessarily affect consumers' likelihood to choose or their perceptions of a hotel. This is in contrast to hypotheses 1, 2, 5 and 6 since increased expertise and the presence of group membership is expected to increase source credibility. A credible source has a stronger influence on individuals' attitudes, compared to a source with low credibility (Chaiken & Maheswaran, 1994). Moreover, source credibility of

online reviewers has been found to influence consumer perceptions (Sparks, Perkins, & Buckley, 2013), however the current research did not find strong evidence to support this.

Interestingly, expertise had an effect on good choice, suggesting that individuals are more likely to rate a hotel as being a good choice when reviewers have a low level of expertise. The lack of support for hypothesis 2 could be due to the fact that readers identify more and are persuaded to a greater extent by reviewers who are similar to them. Thus, reviewers with higher expertise could be unfamiliar or intimidating to the reader, resulting in a lower connection to the reader. A similar result was found in prior research, whereby online reviews were more likely to be discounted when written by an expert (Purnawirawan, Dens, & De Pelsmacker., 2014). That study used an actual expert, in the form of a culinary reviewer, compared to an expert denoted as a previous customer who frequently posts reviews about hotels.

Source Characteristics

The results of study 1 indicated that expertise does not influence ratings of credibility, helpfulness, trust, or confidence in reviewers. The lack of support for hypothesis 3 indicated that expertise does not necessarily lead to increased source credibility. Prior research suggests that expertise does lead to increased credibility in the online review environment (Lee & Youn, 2009), however classic research noted that expertise may not lead to increased trustworthiness due to a source bias caused by a high level of expertise (Wiener & Mowen, 1986). The lack of clarity regarding expertise and source credibility warrants further investigation of reviewer expertise.

Social Influence

The results of study 1 reveal that expertise does not play a role in individuals experiencing informational influence. The lack of support for hypothesis 4 could be due to the

fact that expertise does not lead to increased source credibility. Interestingly, informational influence was higher when group membership was present. This is contrary to hypothesis 10, which postulated that group membership would not affect informational influence.

Informational influence occurs when information received by another person is believed to be factual evidence about reality (Deutsch & Gerard, 1955). Thus, when group membership is present, it is likely that readers believe the information to a greater extent than when it is not present. This could be due to having a stronger connection to the reviewers due to the presence of a shared common link (i.e., membership).

Normative influence was not found when group membership was present. This finding suggests that online group membership may not be enough for normative influence to manifest. The lack of support for hypothesis 9 could be because normative influence typically exists in group settings where individuals know other group members (Deutsch & Gerard, 1955; Terry, Hogg, & McKimmie, 2000). Consumers may not be susceptible to this type of influence unless it is with a group of people they know and they feel pressure to go along with the group norm. The absence of a face-to-face setting and familiarity with other group members may decrease the pressure felt by individuals, in turn decreasing normative influence. Future research regarding normative influence in online reviews is warranted to determine if it operates in the same way as in traditional, face-to-face settings.

As postulated in hypotheses 7 and 8, group membership led to a stronger sense of belonging and identification with reviewers. Both sense of belonging and identification with others comprise normative influence (Deutsch & Gerard, 1955; Turner, 1991). These findings suggest that being a part of an online group can increase the connection with other members.

One could argue that although normative influence may not manifest in online reviews, aspects of this influence are in fact present.

Study 2

Table 20 displays the support of hypotheses for study 2.

Table 20

Study 2 Hypotheses Support

Hypotheses	Dependent Variable	Predicted Effect	Supported
11	Likelihood	BR	N
16		C	N
22		C x CP	N
12	Hotel Ratings	BR	Partial
17		C	N
23		C x CP	Partial
13	Informational Influence	BR	N
19		C	N
14	Normative Influence	BR	N
18		C	Y
15	Recall	BR	N
20		C	Y
22		CP	N
24		C x CP	N

Note: BR=base rate; C=content, CP=cognitive processing.

Consumer Perceptions

The results of study 2 were interesting. Neither content nor base-rate information had an effect on likelihood to choose, contrary to hypotheses 11 and 16. This is in contrast to what the literature states regarding review content, as useful information about product/service attributes is likely to increase purchase intention (Baek, Ahn, & Choi, 2012). Furthermore, research suggests that informative content is often considered to be persuasive, thereby influencing

consumers' perceptions (Sparks et al., 2013). It is unclear why content did not have a stronger effect on likelihood to choose. Base-rate information is expected to influence likelihood to choose as research suggests that heuristic cues in the online environment influence consumers' perceptions (Sparks et al., 2013). Future research should examine different content types, such as negative versus positive or persuasive versus non-persuasive, to examine the effects of content on purchase likelihood.

Cognitive processing had an effect on likelihood to choose. Cognitive processing was included by having subjects rate the level of information present following each review. The results indicate that enlisting cognitive processing decreases the likelihood to choose. This could be because the review content was uninformative in half the conditions, thus when participants were prompted to engage in cognitive processing, it resulted in decreased likelihood as they recognized that the content was not helpful in making a decision. This finding suggests that prompting cognitive processing makes readers pay closer attention to the content, thus affecting their likelihood to choose.

In partial support of hypothesis 12, certain hotel evaluations were influenced by base rate information, suggesting that when recommendation percentage was clearly positive, participants thought the hotel was more appealing and had a more positive impression of the hotel. This finding suggests that consumers pay attention to the percentage of people who recommend a hotel and this affects their perceptions. It also suggests that heuristic information processing may be involved in the influence of purchase intention, since the recommendation percentage serves as base rate information. However, determining if heuristic processing actually took place would require further research.

Content and cognitive processing can also have an effect on hotel evaluations. When content is not informative and cognitive processing is prompted, participants thought the hotel was less appealing. This finding suggests that enlisting cognitive processing makes readers pay closer attention to the content, and when the content does not contain important aspects of the hotel, this negatively affects their perceptions. When base rate information was ambiguous, content was uninformative, and cognitive processing was enlisted, participants thought the hotel was less of a good choice. This finding suggests that ambiguous base rate information likely causes consumers to seek out additional information as the lack of a clear recommendation percentage creates uncertainty. When seeking out other information, if the information is not informative, and readers are enlisted to engage in cognitive processing, then perceptions of good choice will be negatively affected as they recognize that the information is not useful. Literature regarding systematic processing when reading online reviews is limited, thus this finding provides unique and useful insights into how different factors interact in the online environment.

Social Influence

The results of study 2 reveal that neither normative nor informational influence varied by condition. Normative influence was expected to manifest when base rate was clearly favorable, as this recommendation from others is thought to create a norm. The lack of support for hypothesis 14 suggests that a clear recommendation percentage is not strong enough to enlist normative influence. Normative influence did not manifest under conditions of varying content, thus hypothesis 18 was supported.

Informational influence was present as indicated by the high mean values in all conditions. However, the predicted differing effects by condition were not present. It is surprising that informational influence did not differ by condition, particularly when content was

informative. The lack of support for hypothesis 19 could be due to the lack of variation in the content. The results suggest that informative and uninformative content do not differ in the resulting level of informational influence. Further research is needed to understand the role of online review content and informational influence.

Information Recall

The recall measures used in this study included a score for accuracy, a score for how many recall items were content related and how many were non-content related. The author calculated the to determine the information provided by each respondent. All scores were based out of 5. The discussion of the recall findings is organized around the effects.

Base rate had an effect on recall accuracy, whereby accuracy increased when base-rate information was clear. Base rate also had an effect on content-related recall, whereby a clear base rate leads to an increase in content-related recall. When base rate was ambiguous, participants' non-content related recall was higher. These findings are inconsistent with hypothesis 15, as base rate is not expected to affect information recall. In the clear base rate condition, it could be that readers are motivated to read what the reviewers wrote, since the hotel was overwhelmingly recommended by previous guests. Another possible reason is a priming effect known as automatic activation. Automatic activation states that individuals are able to evaluate information more quickly if the information is preceded with a cue that is similar in valence as the subsequent information (Hermans, Houwer, & Eelen, 1994). In this study, the clear recommendation percentage could have been a cue that primed the individuals' assessment of the review content, leading to better information recall accuracy. In the ambiguous condition, it could be that readers seek out additional information when base-rate is unclear. By doing so,

participants paid closer attention to the content, thereby recall non-content related information when that is what was presented to them.

Content type had an effect on content recall, whereby participants presented with informative content had higher scores on recall accuracy. This finding supports hypothesis 20 and indicates that content specific to important attributes is more likely to be remembered. The difference between content-related recall and non-content related recall is a function of the information read by the participant. That is, when content was informative, participants had higher content-related recall scores. The same effect took place when content was uninformative, in that participants had higher non-content related recall. Essentially, these results are manipulation checks for type of content.

Contrary to what was expected, cognitive processing did not have an effect on the accuracy and type of information recall. It is possible that enlisting cognitive processing brought attention to the level of information in the reviews, however it did not lead to increased memory of the information. The majority of the literature on information recall is in regards to information overload. In consumer behavior, information overload refers to a large or complex amount of product/service information that causes consumers to feel overwhelmed, thereby decreasing their information processing abilities and information retention (Jacoby, Speller, & Kohn, 1974). Research suggests that information overload is present in the online purchasing environment and that the quantity and quality of online reviews can lead to information overload (Chen et al. 2009; Gao et al, 2012). This research contributes to the literature by explaining the relationship between informative content and information recall.

Theoretical Implications

This research contributes to the literature on social influence, judgmental heuristics, online reviews, and overall consumer behavior. Prior research on normative and informational social influence and judgmental heuristics in the online environment has been limited. The integration and application of both domains in this research provide a more comprehensive understanding of the cognitive and social processes taking place in online reviews.

Social Influence

Both types of social influence were expected to be present in online reviews. It is interesting to note that normative influence was low under all conditions, as mean ratings did not surpass 3.5 on the 7-point scale. This could suggest that normative influence does not exist in the online purchasing environment. Normative influence does not appear to operate to the same extent that it does in face-to-face settings where individuals are familiar with other group members. A possible explanation for the lack of normative influence could be the social desirability bias, whereby subjects do not respond accurately with self-report measures, as it may be uncomfortable or embarrassing to do so (Maccoby & Maccoby, 1954). The questions used to measure normative influence could be perceived as succumbing to peer pressure, which can be perceived as undesirable. Thus, subjects may have failed to respond accurately regarding how influenced they were by the reviewers. Prior research has found that social desirability can be an issue in consumer behavior research, particularly when variables are subject to social influence (Fisher, 1993). It is unclear if the manipulations were not strong enough to capture normative influence by condition. Further research using different stimuli is needed to determine the conditions under which normative influence manifests.

Prior research has not attempted to measure normative influence, thus its presence is unclear. Prior research has claimed to manipulate normative influence in online reviews (Quaschnig, Pandelaere, & Vremeir, 2015; Kuan, Zhong, & Chau, 2014) however, it is uncertain if this research actually manipulated normative influence or just other variables that were believed to comprise normative influence. Further research is needed in order to demonstrate whether normative influence is a part of the online purchasing environment. It is important to note that aspects of normative influence, sense of belonging and identification, increased when group membership was present. Thus, it is possible that aspects that comprise normative influence are present in the online purchasing environment, however the actual influence does not exist in its full effect or it takes a different form, which has yet to be identified.

Informational influence was stronger when readers were members of an online forum. This group membership was expected to lead to normative influence, thus the fact that informational influence was present is interesting and important. Interestingly, informational influence was high in all conditions, yet did not differentiate based on different types of content provided in the online reviews. Perhaps different types of content do not increase informational influence.

This research suggests that social influence does not operate extensively in the online environment. This research examined the two types of social influence identified by Deutsch and Gerard (1955), however it is possible that a new type of influence is present in online reviews. The lack of a finding for normative influence suggests that there may be something other than the two types of social influence. Perhaps, a subtle influence is present where consumers are influenced by a norm present in the review environment; yet do not feel pressure

to comply. Online reviews are immensely influential, and different theoretical lenses have been used to explain this phenomenon. Further research incorporating social psychology theories is needed to understand why.

Heuristics

This research suggests that heuristics, in the form of base rate information, operate as expected in the online purchasing environment. When base rate information was ambiguous, individuals sought out other information to reduce their uncertainty. In essence, when base-rate information was unclear, it was neglected in favor of other descriptive information (i.e., online reviews). Tversky and Kahneman (1973) explained that base rate information is often ignored or underweighted in favor of descriptive information, as the latter is easier to process. This was the case in this study when base rate information was ambiguous. Conversely, when base rate was clear, subjects went along with the base rate information, regardless of if the content was informative or meaningless. It is likely that heuristic processing took place as subjects relied on this cue to aid in their decision-making. Thus, a clear base-rate notably affects perceptions. What is notable about this research is that previous findings have been a product of artificial choice situations, whereas this research explains how base rate information exists in a real world purchasing environment. This research demonstrates that consumers pay attention to heuristic stimuli in the online purchasing environment, and the clarity or lack thereof can influence their perceptions.

This research examined the effect of enlisting cognitive processing when reading online reviews. Cognitive processing results in readers paying closer attention to the content in online reviews and this can affect their perceptions. Particularly, enlisting cognitive processing brings attention to the type of information present in online reviews, thus making the content more

influential. The use of cognitive processing in this research contributes to the theory in that it demonstrates that prompting individuals to reflect on the information provided could trigger systematic processing. However, it is possible that subjects did not fully engage in systematic processing since the task was of low importance to them. Full systematic processing is enlisted when the information is important to an individual (Chaiken, 1980), thus the results may be different when individuals make an actual purchase decision.

Practical Implications

Several important practical implications have emerged from the results of the two studies. This research emphasizes the importance of source and content in online reviews. In regards to source, it is important to note that informational influence was high for online reviews. Additionally, a sense of belonging and identification with the reviewers increased when group membership was present. This is a useful finding for operators who want to capitalize on the opportunity of positive word-of-mouth in the form of online reviews. Displaying online reviews in a community type of setting will likely increase the influence of the information presented by reviewers in the forum. This is also true of online reviews posted on social media. These reviews may be particularly influential as they are displayed in a community-style setting. Operators should carefully manage these reviews by providing a genuine response to any complaints and by encouraging guests to post reviews about their stay. Furthermore, social media can build a sense of community increasing the connection felt with a company or brand. Thus, operators should strive to increase their social media presence and enlist tactics in order to connect with consumers, increase brand engagement, and influence purchase intentions.

Interestingly, expertise was not found to be useful in influencing reviewers. The majority of online review sites display the information denoting reviewers as experts, whether it is

through a “top reviewer” denotation or the use of expertise badges. However, readers may not relate to reviewers with a high level of expertise. The use of expertise badges on review sites are used to encourage reviewer participation, whereby increased postings of reviews results in an expertise badge. However, the meanings of these badges are unclear to the readers. Thus, this information is not useful for readers. There are numerous source cues in online review sites, such as names, photos, and location of the reviewer. Online review sites should research the effects of these cues and consider ways of establishing source credibility in a way that enhances trustworthiness.

Base rate information, in the form of a recommendation percentage, was found to be an important piece of information that influenced likelihood to choose a hotel and consumers’ perceptions. Thus, it is important for operators to strive for a high recommendation percentage as consumers notice this cue and are influenced by it. Since the percentage is an aggregate rating, it is critical to have as many satisfied customers as possible recommend the hotel. Reaching out to the customers via email after their stay with a link to provide their recommendation could help increase this percentage. Operators should clearly display the recommendation percentage on their website to encourage potential consumers to choose the hotel.

This research highlights the importance of informative content, as informative content is more likely to be remembered. Thus, operators should not only solicit online reviews from customers, but also solicit meaningful feedback. This could be done by reaching out to customers after their stay and providing a template or guidelines on how to write a review that will be useful to future guests. Perhaps including an incentive for doing so would be beneficial

in motivating guests to write an informative review. Highlighting or presenting informative reviews would also be beneficial in reducing consumer information search.

Limitations and Recommendations for Future Research

As in any research, this study has some limitations that should be addressed in future research. First, the study was performed using an online sample of the traveling population whereby subjects made a hypothetical choice. The same is true of much of experimental research regarding customer reviews to date. Future research could survey customers from online reviews sites to examine if types of social influence are present.

Although all independent variables were pretested and manipulation checks were used, it is possible that certain manipulations could have been stronger in order to capture their true effect on the dependent variables. In particular, the base rate percentage manipulation check yielded unclear results due to a poorly worded question. Participants were asked to select a value that corresponded to the base-rate information in the stimuli. However, this value was based out of 10 (i.e., for 50% base-rate, 5 would be the correct value). Although some participants selected the correct value, it appeared as though many participants selected a value that was close to the base rate, but not accurate. This indicated that participants recognized the general base rate, yet had difficulty translating that into the manipulation check. Pre-testing results using the same question indicated that base-rate was being effectively captured, thus the manipulation was effective. Future research should include base rate information as an independent variable to examine the effects on consumer perceptions and decisions.

In experimental research, the focus is on internal validity (Campbell & Stanley, 1973), and generalizability is of less concern. However, it is important to note that this research tested one type of service product (hotel) for a specific circumstance (weekend trip to New York City),

thus the findings of this research may not generalize to other settings. Future research should explore these variables in other contexts.

This research did not find much support for normative and informational influence in online reviews. However, only certain aspects of these influences were examined, thus there is more to learn about these two types of influences in the online environment. Future research should manipulate other independent variables to examine the conditions under which different types of influence exist in the online purchasing environment.

This line of research has much to offer for future research. The amount and complexity of information presented in the online purchasing environment requires continued research in online social influence and online heuristics to understand the effects on individuals. For example, manipulating different aspects of normative and informational influence to determine the conditions under which both influences manifest is warranted. Examining different types of information and cues explain what leads to different types of influence. Furthermore, applying other social psychology theories to the online purchasing environment can yield interesting insights as to what takes place in the digital environment. While much progress has been made in understanding the online environment, there is still to know about the ever-changing digital environment. This research serves as a leading edge on a topic where much more is to come.

Summary

This chapter discussed the findings and identified several important theoretical and practical implications not only for the hospitality research, but also for general consumer behavior research. This study contributes to hospitality and consumer behavior literature regarding the online purchasing environment. The results suggest that review source and review content are important aspects of online reviews that influence consumer perceptions and

decisions. The application of classic theories to the modern day purchasing environment provides unique insights into the complex cognitive and psychological processes taking place in the presence of online reviews.

APPENDIX A

IRB APPROVAL

Please note that UNLV Social/Behavioral IRB has taken the following action on IRBNet:

Project Title: [878704-1] The effects of features of online reviews on consumer perceptions

Principal Investigator: Sarah Tanford, PHD

Submission Type: New Project

Date Submitted: March 4, 2016

Action: EXEMPT

Effective Date: March 14, 2016

Review Type: Exempt Review

APPENDIX B

INFORMED CONSENT FORM

The Effects of Features of Online Reviews on Consumer Perceptions

You are invited to participate in a research study. The purpose of this study is to evaluate how consumers make travel decisions. If you volunteer to participate in this study, you will complete a survey in which you read online reviews and answer questions pertaining to the reviews. The survey will take 10-15 minutes of your time. There will not be direct benefits to you as a participant in this study. There are risks involved in all research studies. This study includes only minimal risks. You may feel uncomfortable when answering some of the questions. You may choose not to answer any question, and may also discontinue participation at any time. There will not be financial cost to you to participate in this study. Your participation in this study is voluntary. You must be at least 18 years of age to participate. You may refuse to participate in this study or in any part of this study without any consequences. All information gathered in this study will be kept completely confidential. No reference will be made in written or oral materials that could link you to this study. All records will be stored in a locked facility at UNLV for 3 years after completion of the study. After the storage time the information gathered will be completely discarded. If you have any questions or concerns about the study, you may contact Laura Book (Boscarolo) at (702) 895-5438 or boscarol@unlv.nevada.edu, as well as Sarah Tanford at (702) 895-5982 or Sarah.Tanford@unlv.edu. For questions regarding the rights of research subjects, any complaints or comments regarding the manner in which the study is being conducted you may contact the UNLV Office of Research Integrity – Human Subjects at 702-895-2794 or toll free at 877-895-2794 or via email at IRB@unlv.edu.

Please click below to indicate your agreement.

- ☐ I Agree
- ☐ I Do Not Agree

APPENDIX C

STUDY 1 QUESTIONNAIRE

A. Informed Consent

B. Screener/General Instructions

1. How many nights have you stayed in a hotel in the last 12 months?

- ☐ 0
- ☐ 1-3
- ☐ 4-6
- ☐ 6-10
- ☐ More than 10

Terminate survey if "0" is selected

2. Please indicate your age below:

- ☐ Under 18
- ☐ 18 - 21
- ☐ 22-30
- ☐ 31-40
- ☐ 41-50
- ☐ 51-60
- ☐ Over 60

Terminate survey if "Under 18" is selected

3. Instructions-Randomly displayed

a. Group membership not present

INSTRUCTIONS: PLEASE READ THIS INFORMATION CAREFULLY

You are planning a leisure weekend trip (Friday, Saturday, and Sunday) to New York City. While browsing the Internet in preparation for your trip, you come across Travel Chat, an online travel forum. You have never seen this site before, and you choose not to sign up for the forum. You proceed to read the following reviews posted by forum members about a hotel you are considering for your stay. Please read the information carefully and answer ALL of the questions using the scales provided. Thank you for your participation!

Minimum time of 30 seconds required before moving to next page

b. Group membership present

You are planning a leisure weekend trip (Friday, Saturday, and Sunday) to New York City. In preparation for your trip, you login to Travel Chat to see what your online travel community members are recommending. You have been a member of Travel Chat for 3 years. You regularly post on the discussion board and enjoy engaging with your fellow forum members. You choose to read reviews posted by your fellow forum members about a hotel you are considering for your stay. Please read the information carefully and answer ALL of the questions using the scales provided. Thank you for your participation!

Minimum time of 30 seconds required before moving to next page

Enter the screen name you would use as a member of Travel Chat (you can enter any combination of numbers and letters)

C. Stimuli

1. Hotel description

Hotel Manhattan



Hotel Description

This modern New York City hotel is located in the heart of the city. Hotel Manhattan is just steps from Broadway theaters, fantastic restaurants, and famous sites. Each guest room includes wonderful accommodations including upscale bedding, a 46-inch flat screen TV, and a well-equipped work space. The hotel boasts an award-winning restaurant open for breakfast, lunch, and dinner. Hotel Manhattan is a great place for any type of traveler.

2. Low Expertise Condition

Randomly displayed



Customer Reviews

Love2Travel

Level 1 Contributor

2 Reviews



Location was very good, with Broadway 1 block away, Central Park 3 blocks and Times Square about 10 blocks. Train station was conveniently located right outside the side door of the hotel. The room was very clean, bed was very comfortable, and the staff was helpful in recommending things to do. The restaurant in the hotel had a nice menu, but there are also many options nearby so we did not eat there.

BeachBum21

Level 3 Contributor

6 Reviews



Great mid-town location--convenient. Restaurants and shows are in walking distance. Facade & lobby are attractive & staff is attentive. The room was spacious, nicely designed and the bathroom is updated.

SMTraveler

Level 2 Contributor

3 Reviews



Hotel was comfortable and clean. Had a very smooth check in with Aniana! Really enjoyed visiting the restaurant downstairs for breakfast, fantastic service, no waiting, and the staff are very friendly. The hotel is located in a great area, walking distance to many sites. We would stay here again.

Explorer284

Level 2 Contributor

4 Reviews



I have stayed in NYC many times and this was by far the most comfortable place to stay and I will definitely come back here again. The standard rooms are larger than any other NY hotel and very clean and comfortable. The location was very convenient to Broadway theatres and by the train station so getting around was easy. The restaurant serves a typical breakfast, which is pretty good, but I recommend checking out the great places nearby. I also found the staff to be very pleasant and helpful throughout our stay.

Wandering_guide

Level 1 Contributor

2 Reviews



This hotel is very well located, near everything you want to see. The windows are sound proof so you aren't bothered with all the noise of the city. Rooms are big and clean. Rodney the bell captain and Nick the front desk employee went above and beyond to make our stay pleasant.

Globetrotter

Level 1 Contributor


1 Review



This hotel is very well located, near everything you want to see. The windows are sound proof so you aren't bothered with all the noise of the city. Rooms are big and clean. Rodney the bell captain and Nick the front desk employee went above and beyond to make our stay pleasant.



3. High Expertise Condition

Randomly displayed





Customer Reviews

Love2Travel
Level 9 Contributor
42 Reviews





Location was very good, with Broadway 1 block away, Central Park 3 blocks and Times Square about 10 blocks. Train station was conveniently located right outside the side door of the hotel. The room was very clean, bed was very comfortable, and the staff was helpful in recommending things to do. The restaurant in the hotel had a nice menu, but there are also many options nearby so we did not eat there.

BeachBum21
Level 8 Contributor
36 Reviews





Great mid-town location--convenient. Restaurants and shows are in walking distance. Facade & lobby are attractive & staff is attentive. The room was spacious, nicely designed and the bathroom is updated.

SMTraveler
Level 10 Contributor
56 Reviews





Hotel was comfortable and clean. Had a very smooth check in with Aniana! Really enjoyed visiting the restaurant downstairs for breakfast, fantastic service, no waiting, and the staff are very friendly. The hotel is located in a great area, walking distance to many sites. We would stay here again.

Explorer284
Level 10 Contributor
67 Reviews





I have stayed in NYC many times and this was by far the most comfortable place to stay and I will definitely come back here again. The standard rooms are larger than any other NY hotel and very clean and comfortable. The location was very convenient to Broadway theatres and by the train station so getting around was easy. The restaurant serves a typical breakfast, which is pretty good, but I recommend checking out the great places nearby. I also found the staff to be

Wandering_guide
Level 9 Contributor
45 Reviews



This hotel is very well located, near everything you want to see. The windows are sound proof so you aren't bothered with all the noise of the city. Rooms are big and clean. Rodney the bell captain and Nick the front desk employee went above and beyond to make our stay pleasant.

Globetrotter
Level 10 Contributor
53 Reviews



This hotel is very well located, near everything you want to see. The windows are sound proof so you aren't bothered with all the noise of the city. Rooms are big and clean. Rodney the bell captain and Nick the front desk employee went above and beyond to make our stay pleasant.

D. Measures

1. How likely are you to choose this hotel for your trip?

Extremely 1 2 3 4 5 6 7 Extremely
Unlikely Likely

2. Rate how much you agree or disagree with the following statements.

	Strongly Disagree	Mostly Disagree	Mildly Disagree	Neither Disagree	Mildly Agree	Mostly Agree	Strongly Agree
A. This hotel is appealing to me							
B. This hotel is a good choice for my trip.							
C. I have a positive impression of this hotel.							

3. How credible are the reviewers?

Not at 1 2 3 4 5 6 7 Completely
all Credible
credible

4. How helpful are the reviewers?

Not at 1 2 3 4 5 6 7 Extremely
all Helpful
helpful

5. I trust the reviewers.

Strongly 1 2 3 4 5 6 7 Strongly
Disagree Agree

6. I have confidence in the reviewers.

Strongly 1 2 3 4 5 6 7 Strongly
Disagree Agree

7. To what extent do you feel that you belong in the group of travelers who posted online reviews?

Not 1 2 3 4 5 6 7 Completely
at all

8. To what extent do you identify with the reviewers?

Not 1 2 3 4 5 6 7 Completely
at all

9. Please indicate your answer using the scale provided:

Displayed in random order

	Strongly Disagree	Mostly Disagree	Mildly Disagree	Neither Disagree nor Agree	Mildly Agree	Mostly Agree	Strongly Agree
A. I go along with what the reviewers recommended because I want to enhance my own self-image.							
B. I believe the people providing the reviews are credible.							
C. If reviewers can see what I purchase, I purchase what they expect me to buy.							
D. I go along with what the reviewers recommend because I want to avoid their disapproval.							
E. I believe the information in the reviews is valid.							
F. I feel pressure to go along with reviewers' recommendations.							
G. I believe the information in the reviews is accurate.							
H. I seek information from reviewers who have a lot of experience with a travel product.							
I. I go along with what reviewers recommended because I want to identify with them.							
J. The information provided by the reviewers influences my opinion of the travel product.							
K. I followed what the reviewers recommend because it is what they expect me to do.							

E. Manipulation Checks

1. How often do these reviewers post online reviews on this site?

Never 1 2 3 4 5 6 7 Frequently

2. To what extent do you consider the reviewers to be experts?

Definitely are not experts	1	2	3	4	5	6	7	Definitely are experts
----------------------------------	---	---	---	---	---	---	---	---------------------------

3. How realistic is the information depicting a New York City hotel?

Completely	1	2	3	4	5	6	7	Completely
Unrealistic								Realistic

F. Demographics

Please answer the following questions for classification purposes:

1. Gender:

- ☐ Male
- ☐ Female

2. Annual Household Income:

- ☐ Under \$50,000
- ☐ \$50,000-\$74,999
- ☐ \$75,000-\$99,999
- ☐ \$100,000-\$125,000
- ☐ Over \$125,000

3. Highest Completed Education Level:

- ☐ Less than High School
- ☐ High School Diploma
- ☐ Associate's Degree
- ☐ Bachelor's Degree
- ☐ Graduate Degree

4. Have you been to New York City in the past 5 years?

- ☐ Yes
- ☐ No

5. How many online reviews pertaining to a travel product (hotel, restaurant, cruise, etc) have you read in the past month?

- ☐ 0
- ☐ 1-5
- ☐ 6-10
- ☐ 11-15
- ☐ 16-20
- ☐ 21-25
- ☐ More than 25

APPENDIX D

STUDY 2 QUESTIONNAIRE

A. Informed Consent

B. Screener/General Instructions

1. How many nights have you stayed in a hotel in the last 12 months?

- ☐ 0
- ☐ 1-3
- ☐ 4-6
- ☐ 6-10
- ☐ More than 10

Terminate survey if "0" is selected

2. Please indicate your age below:

- ☐ Under 18
- ☐ 18 - 21
- ☐ 22-30
- ☐ 31-40
- ☐ 41-50
- ☐ 51-60
- ☐ Over 60

Terminate survey if "Under 18" is selected

3. Instructions

PLEASE READ THIS PARAGRAPH CAREFULLY

You are planning a leisure weekend trip (Friday, Saturday, and Sunday) to New York City. You are looking at the following travel booking website to help with your decision. Please read the information carefully and answer ALL of the questions using the scales provided. Thank you for your participation!

C. Stimuli

1. Hotel description with ambiguous base-rate information

Hotel Manhattan



Hotel Description

This modern New York City hotel is located in the heart of the city. Hotel Manhattan is just steps from Broadway theaters, fantastic restaurants, and famous sites. Each guest room includes wonderful accommodations including upscale bedding, a 46-inch flat screen TV, and a well-equipped work space. The hotel boasts an award-winning restaurant open for breakfast, lunch, and dinner. Hotel Manhattan is a great place for any type of traveler.

2. Hotel description with clear base-rate information

Hotel Manhattan



Hotel Description

This modern New York City hotel is located in the heart of the city. Hotel Manhattan is just steps from Broadway theaters, fantastic restaurants, and famous sites. Each guest room includes wonderful accommodations including upscale bedding, a 46-inch flat screen TV, and a well-equipped work space. The hotel boasts an award-winning restaurant open for breakfast, lunch, and dinner. Hotel Manhattan is a great place for any type of traveler.

D. Reviews

1. *Informative content and no cognitive processing*

Customer Reviews

Location was very good, with Broadway 1 block away, Times Square 3 blocks and Central Park about 10 blocks. Train station was conveniently located right outside the side door of the hotel. The room was very clean, bed was very comfortable, and the staff was helpful in recommending things to do. The restaurant in the hotel had a nice menu, but there are also many options nearby so we did not eat there.

Great mid-town location--convenient. Restaurants and shows are in walking distance. Facade & lobby are attractive & staff is attentive. The room was spacious, nicely designed and the bathroom is updated.

Hotel was comfortable and clean. Had a very smooth check in with Aniana! Really enjoyed visiting the restaurant downstairs for breakfast, fantastic service, no waiting, and the staff are very friendly. The hotel is located in a great area, walking distance to many sites. We would stay here again.

I have stayed in NYC many times and this was by far the most comfortable place to stay and I will definitely come back here again. The standard rooms are larger than any other NY hotel and very clean and comfortable. The location was very convenient to Broadway theatres and by the train station so getting around was easy. The restaurant serves a typical breakfast, which is pretty good, but I recommend checking out the great places nearby. I also found the staff to be very pleasant and helpful throughout our stay.

This hotel is very well located, near everything you want to see. The windows are sound proof so you aren't bothered with all the noise of the city. Rooms are big and clean. Rodney the bell captain and Nick the front desk employee went above and beyond to make our stay pleasant. Fantastic location. Raquel at the front desk was very helpful and ensured I had a smooth and quick check in. All other staff I encountered were very friendly. The lobby bar is a great place for an evening cocktail. Thumbs up overall for location, service, and of course the room-spacious and clear. Couldn't have asked for more. Worth it totally.

2. *Uninformative content and no cognitive processing*

Customer Reviews

We were booked to stay four nights, but ended up staying 6 as our flight home got cancelled twice due to a major snowstorm. Even though we were disappointed to not head back home, it was nice that the hotel staff helped us arrange to stay in the same room. I would stay here again if we made another trip to NYC.

My adult son and I were in New York for several days for some much needed leisure time, and we wanted to do as many things as possible to get the most out of the trip. Due to ongoing flight delays, by the time we checked into the hotel, we were frustrated, tired, and hungry. Once we got to the hotel, we were able to quickly check in and head to the

room to relax. We ended up having a great trip and we loved staying here. Everything was great.

Myself and my friend stayed here and we had a great time here. Walking distance to amazing cafes and delis-had the best lox and bagel ever at Murray's. Everything went smooth and I'd stay here again.

We arrived at about 3pm after what had been a very long day of travelling from England. We were quickly checked in so we could rest. The following morning we got to explore the city--hitting all the tourist spots. All members of the staff were lovely. We can't wait to return to NYC!

We moved to this hotel as our previous one was too noisy. I realize it is New York, but we could not sleep at the previous hotel with all the noise. Thankfully this hotel was much better. Great place to stay.

This hotel is in a great location easy access to the most popular attractions and sites minutes away from the famous Broadway and Times Square lights. The lights are just cultivating and simply breath taking!

3. Informative content and cognitive processing

Customer Reviews

Location was very good, with Broadway 1 block away, Times Square 3 blocks and Central Park about 10 blocks. Train station was conveniently located right outside the side door of the hotel. The room was very clean, bed was very comfortable, and the staff was helpful in recommending things to do. The restaurant in the hotel had a nice menu, but there are also many options nearby so we did not eat there.

How informative is the content in this review?

Extremely	1	2	3	4	5	6	7	Extremely
Uninformative								Informative

Great mid-town location--convenient. Restaurants and shows are in walking distance. Facade & lobby are attractive & staff is attentive. The room was spacious, nicely designed and the bathroom is updated.

How informative is the content in this review?

Extremely	1	2	3	4	5	6	7	Extremely
Uninformative								Informative

Hotel was comfortable and clean. Had a very smooth check in with Aniana! Really enjoyed visiting the restaurant downstairs for breakfast, fantastic service, no waiting, and the staff are

very friendly. The hotel is located in a great area, walking distance to many sites. We would stay here again.

How informative is the content in this review?

Extremely	1	2	3	4	5	6	7	Extremely
Uninformative								Informative

I have stayed in NYC many times and this was by far the most comfortable place to stay and I will definitely come back here again. The standard rooms are larger than any other NY hotel and very clean and comfortable. The location was very convenient to Broadway theatres and by the train station so getting around was easy. The restaurant serves a typical breakfast, which is pretty good, but I recommend checking out the great places nearby. I also found the staff to be very pleasant and helpful throughout our stay.

How informative is the content in this review?

Extremely	1	2	3	4	5	6	7	Extremely
Uninformative								Informative

This hotel is very well located, near everything you want to see. The windows are sound proof so you aren't bothered with all the noise of the city. Rooms are big and clean. Rodney the bell captain and Nick the front desk employee went above and beyond to make our stay pleasant.

How informative is the content in this review?

Extremely	1	2	3	4	5	6	7	Extremely
Uninformative								Informative

Fantastic location. Raquel at the front desk was very helpful and ensured I had a smooth and quick check in. All other staff I encountered were very friendly. The lobby bar is a great place for an evening cocktail. Thumbs up overall for location, service, and of course the room-spacious and clear. Couldn't have asked for more. Worth it totally.

How informative is the content in this review?

Extremely	1	2	3	4	5	6	7	Extremely
Uninformative								Informative

4. Uninformative content and cognitive processing

Customer Reviews

We were booked to stay four nights, but ended up staying 6 as our flight home got cancelled twice due to a major snowstorm. Even though we were disappointed to not head back home, it was nice that the hotel staff helped us arrange to stay in the same room. I would stay here again if we made another trip to NYC.

How informative is the content in this review?

Extremely	1	2	3	4	5	6	7	Extremely
Uninformative								Informative

My adult son and I were in New York for several days for some much needed leisure time, and we wanted to do as many things as possible to get the most out of the trip. Due to ongoing flight delays, by the time we checked into the hotel, we were frustrated, tired, and hungry. Once we got to the hotel, we were able to quickly check in and head to the room to relax. We ended up having a great trip and we loved staying here. Everything was great.

How informative is the content in this review?

Extremely	1	2	3	4	5	6	7	Extremely
Uninformative								Informative

Myself and my friend stayed here and we had a great time here. Walking distance to amazing cafes and delis-had the best lox and bagel ever at Murray's. Everything went smooth and I'd stay here again.

How informative is the content in this review?

Extremely	1	2	3	4	5	6	7	Extremely
Uninformative								Informative

We arrived at about 3pm after what had been a very long day of travelling from England. We were quickly checked in so we could rest. The following morning we got to explore the city-- hitting all the tourist spots. All members of the staff were lovely. We can't wait to return to NYC!

How informative is the content in this review?

Extremely	1	2	3	4	5	6	7	Extremely
Uninformative								Informative

3. Please indicate your answer using the scale provided:

Displayed in random order

	Strongly Disagree	Mostly Disagree	Mildly Disagree	Neither Disagree nor Agree	Mildly Agree	Mostly Agree	Strongly Agree
A. I go along with what the reviewers recommended because I want to enhance my own self-image.							
B. I believe the people providing the reviews are credible.							
C. If reviewers can see what I purchase, I purchase what they expect me to buy.							
D. I go along with what the reviewers recommend because I want to avoid their disapproval.							
E. I believe the information in the reviews is valid.							
F. I feel pressure to go along with reviewers' recommendations.							
G. I believe the information in the reviews is accurate.							
H. I seek information from reviewers who have a lot of experience with a travel product.							
I. I go along with what reviewers recommended because I want to identify with them.							
J. The information provided by the reviewers influences my opinion of the travel product.							
K. I followed what the reviewers recommend because it is what they expect me to do.							

4. Please list 5 items mentioned in the reviews:

a.

b.

c.

d.

e.

F. Manipulation Checks

1. How realistic is the information depicting a New York City hotel?

Completely 1 2 3 4 5 6 7 Completely
Unrealistic Realistic

2. Overall, how informative is the content in the reviews?

Extremely 1 2 3 4 5 6 7 Extremely
Uninformative Informative

3. Overall, how favorable is the content in the reviews?

Extremely 1 2 3 4 5 6 7 Extremely
Unfavorable Favorable

4. Out of 10, how many reviewers recommend this hotel?

- ☐ 0
- ☐ .5
- ☐ 1
- ☐ 1.5
- ☐ 2
- ☐ 2.5
- ☐ 3
- ☐ 3.5
- ☐ 4
- ☐ 4.5
- ☐ 5
- ☐ 5.5
- ☐ 6
- ☐ 6.5
- ☐ 7
- ☐ 7.5
- ☐ 8
- ☐ 8.5
- ☐ 9
- ☐ 9.5
- ☐ 10

G. Demographics

Please answer the following questions for classification purposes:

1. Gender:

- ☐ Male
- ☐ Female

2. Annual Household Income:

- ☐ Under \$50,000
- ☐ \$50,000-\$74,999
- ☐ \$75,000-\$99,999
- ☐ \$100,000-\$125,000
- ☐ Over \$125,000

3. Highest Completed Education Level:

- ☐ Less than High School
- ☐ High School Diploma
- ☐ Associate's Degree
- ☐ Bachelor's Degree
- ☐ Graduate Degree

4. Have you been to New York City in the past 5 years?

- ☐ Yes
- ☐ No

5. How many online reviews pertaining to a travel product (hotel, restaurant, cruise, etc) have you read in the past month?

- ☐ 0
- ☐ 1-5
- ☐ 6-10
- ☐ 11-15
- ☐ 16-20
- ☐ 21-25
- ☐ More than 25

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CURRICULUM VITA

Graduate College

University of Nevada Las Vegas

Laura A. Book, CHE

EDUCATION

University of Nevada, Las Vegas

Degree: Ph.D. Hospitality Administration (Defended May, 2016)
Committee Chair: Dr. Sarah Tanford
Major Concentration: Consumer Behavior
Minor Concentration: Organizational Behavior
Dissertation Title: The Effects of Source and Content on Types of Social Influence in Online Traveler Reviews

Degree: Master of Business Administration
Major Concentration: Marketing

Degree: Bachelor of Business Administration
Concentration: Marketing

REFEREED WORKS PUBLISHED AND ACCEPTED

Book, L.A., Tanford, S., & Chen, Y. (2015). Understanding the impact of negative and positive traveler reviews: Social influence and price anchoring effects. *Journal of Travel Research*. Advanced online publication. Doi: 10.1177/0047287515606810.

Book, L.A., Tanford, S., & Chen, Y. (2015). Online traveler reviews as social influence: Price is no longer king. *Journal of Hospitality & Tourism Research*. Advanced online publication. Doi: 10.1177/1096348015597029.

Malek, K., **Book, L.A.**, & Tanford, S. (2015). Influential leadership and media: How a single statement can affect an industry. *Journal of Convention and Event Tourism*. 16(1), 27-44.