An examination of online ratings on hotel performance indicators: An analysis of the Boston hotel market

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An examination of online ratings on hotel performance indicators:

An analysis of the Boston hotel market

by

Suzanne D. Markham-Bagnera

A dissertation submitted to the graduate faculty in partial fulfillment of the requirements for the degree of

DOCTOR OF PHILOSOPHY

Major: Hospitality Management

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Ames, Iowa

2016

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ABSTRACT

This research study is designed to examine the impact that a posted online review rating has on the financial performance of a hotel room in the lodging industry. The popularity ratings of hotels in the Boston, Massachusetts market, as posted on the popular online travel review website TripAdvisor, will be examined against the hotel performance metrics of average daily rate (ADR), occupancy, and Revenue per Available Room (RevPar). This study examines the literature to better understand the previous research behind the impact that word-of-mouth communication, both in traditional and electronic forms, has on customer satisfaction. The emergence of social technologies has created an environment in which businesses can be rated and reviewed in an open market for potential future customers to read, and the development of user-generated content has become a more trusted and credible source of product and service information. The purpose of this study was to determine the influence of these online ratings on hotel performance, specifically that of TripAdvisor rating attributes on the financial performance of a hotel.

The study found that the various attributes had varying levels of significant impact on Average Daily Rate (ADR), Occupancy, and Revenue per Available Room (RevPar). Based on the natures of the lodging properties in Boston, Value was found to be statistically significant across all categories analyzed. Ultimately, the contribution of this research is both academic and practical, as this study will be among the first to examine and test the various TripAdvisor rating attributes on each hotel financial performance metric. In addition, this study will expand upon the current body of knowledge in the areas of user-generated content, online reviews, ratings of TripAdvisor, and electronic word-of-mouth (eWOM).
CHAPTER 1. INTRODUCTION

Purpose

The purpose of this research is to examine the impact that a posted online review rating has on the financial performance of a hotel in the lodging industry. This has been done by examining the popularity ratings of hotels in the Boston, Massachusetts market, as posted on the popular online travel review website, TripAdvisor. To start, this introduction discusses the foundations of word-of-mouth and electronic word-of-mouth and provides background on User-generated Content (UGC). Secondly, it presents an outline of the research purpose. Finally, the potential contributions of this study to the lodging industry are discussed.

Word-of-mouth.

Word-of-Mouth (WOM) is defined as a form of communication between consumers over a product, service, or company, whereby the source is considered independent of commercial influence (Litvin, Goldsmith, & Pan, 2008). Information provided by consumers is considered to be the most influential communication media form of delivering a product and/or service (Arndt, 1967; K. T. Lee & Koo, 2012). This traditional form of communication is considered an informal process, which is restricted to face-to-face interaction (Arndt, 1967; Yang, 2013). As the hospitality industry offers products that are typically intangible in nature, the WOM process helps to eliminate the element of risk (Klein, 1998; Z. Zhang, Ye, Law, & Li, 2010).

As technology has advanced, so too has the format that communication has taken. Therefore, electronic word-of-mouth (eWOM) is an advance that is a primary focus for this study. One of the challenges exhibited by the traditional form of WOM is its limitation by boundaries, both geographic and social (Ellison & Fudenberg, 1995; United Nations World Tourism Organization (UNWTO), Blomberg-Nygard, & Anderson, 2016). In an electronic
environment, the service provider has the opportunity to be exposed more immediately to a larger and more diverse audience (Xie, Miao, Kuo, & Lee, 2011).

**Electronic word-of-mouth.**

eWOM is described as all forms of informal communication directed towards consumers through Internet-based technology connected to the usage or characteristics of specific goods and services or their sellers (Litvin et al., 2008; Westbrook, 1987). This new technological media allows for faster information sharing, due to a lower cost required to access and share information. With its vast accessibility, eWOM has the potential to reach millions of people; moreover, it will exist for a longer period of time and can be easily found by persons with similar interests, thus having greater exposure (Dellarocas, 2003; Jeong & Jang, 2011; Litvin et al., 2008; Yang, 2013).

With the advancement of technology and the evolution of WOM into eWOM, the ability to share content produced by individuals expanded in turn. Content found on the Internet can be either individually or collaboratively produced, modified, shared, and consumed (Kaplan & Haenlein, 2010; A. N. Smith, Fischer, & Yongjian, 2012). Hence, now the Internet allows consumers to share experiences and opinions (K. T. Lee & Koo, 2012), thus resulting in expanded options for potential consumers to gather unbiased information from consumers with consumption-related advice (Hennig-Thurau, Gwinner, Walsh, & Gremler, 2004). The various formats of content created by individual users, as described next, is a key aspect to understanding the basis of this study.

**User-Generated content.**

Although similar in nature to eWOM, User-Generated Content (UGC) is not identical, as it is broader in nature and focuses on brand-related content (A. N. Smith et al., 2012). User-
generated Content (UGC) is published content, such as comments, text reviews profiles, and consumer produced photographs found online. Therefore, it provides a combination of fact, opinion, impression, sentiment, tidbits, experiences, and rumor, which is created outside of normal professional practices (S. Burgess, Sellitto, Cox, & Buultjens, 2009; Kaplan & Haenlein, 2010; A. N. Smith et al., 2012; Wilson, Murphy, & Fierro, 2012). The individual user has the potential for more control over content than the actual website. Numerous forms of UGC have evolved as websites have allowed the publication of material by a wide range of individual users, rather than professionals. One of the forms of UGC that this study focuses its efforts upon is online reviews that can be found on websites, which display and explain the discrete ratings and experiences that a guest had with a hospitality organization. An online review is published and available for other potential travelers to read and use to make informed decisions (Banyai, 2012).

**Online reviews.**

Online hotel reviews are quickly becoming the most popular trending tool for customer behavior research; they have the potential to provide a rich source of information regarding the opinions of customers and their sentiments (H. Li, Ye, & Law, 2012). Filieri and McLeay (2013) found that the traveling industry considers an online review (OR) to be an electronic version of traditional WOM, which consists of comments published by travelers regarding their experiences with tourism products, services, and brands. An online review can address any aspect of a vacation, such as accommodation, restaurants, and destinations (Burton & Khammash, 2010). Purchase intentions can be can directly affected by online reviews; hence, they serve as a critical source of consumer information to create purchase decisions (Dou, Walden, Lee, & Lee, 2012).
One of the largest websites in existence for travel information is TripAdvisor, which will be the platform examined in this study. This website provides online reviews written by users, or members of the website, that are found publicly by web seekers. The importance and influence that this particular website has on the lodging industry could be very profound. With this in mind, learning more about the statistical influence that the website has on the revenue and occupancy of a hotel is critical for a hotel operator.

Research Objective

The emergence of social networking sites has started to revolutionize the way in which consumers make travel selections and book lodging accommodations. There has been a huge surge of technology growth in the last 20 years; since 2000, there has been a transformational effect on the technologies available for communication (Buhalis & Law, 2008). The opportunity for UGC to create a direct impact on the decision-making behaviors of consumers leads hospitality organizations into a new realm of online management responsibilities. Travelers find that third-party independent websites engender greater credibility for sharing online user reviews than direct websites. One such website, which will be examined in this proposal, is TripAdvisor.com.

The objective of the research is to understand the components that go into online reviews and their impact on booking arrangements for travel plans. Since TripAdvisor is the largest online website that supports consumer generated comments (HotelMarketing.com, 2012), it will be the focus and tool for the research. The review of literature is intended to define the terms and components in this topic area.
The research question to be examined:

1. To what extent can variation in the dependent variables (i.e. ADR, Occupancy, RevPar) be explained by the independent variables (i.e. cleanliness, location, room, service, staff, value and overall)?

Research Contribution

While there have been a variety of studies on the use of TripAdvisor and the concept behind it, this would be a first-of-its-kind study, wherein data from TripAdvisor would be compared to the data from Smith Travel Research (STR) in a year-over-year change in popularity rankings and revenue generation. Specifically, this study will be examined in one hotel market, one of the top 25 major markets as identified by STR; hence, this study could be replicated for the other markets, in order to examine the same growth potential in popularity and revenue. Based on future market studies, the identification and establishment of additional theories can then be applied.

Definition of Terms

Consumer-Generated Media (CGM): non-commercial, detailed, experiential, and up-to-date information, with others outside of the immediate social circle (K. H. Yoo & Gretzel, 2011).

Consumer Opinion Portal (COP): a portal through which an online review is published and available for other potential travelers to read and use to make informed decisions (Banyai, 2012; Burton & Khammash, 2010).

Electronic Word-of-Mouth (eWOM): any positive or negative statement made by potential, actual, or former customers about a product or company, which is made available to a multitude of people and institutions via the Internet (Hennig-Thurau et al., 2004).
Loyalty: the deep-held commitment by a consumer to re-buy or re-patronize a preferred product or service consistently in the future, regardless of the situational influences and marketing efforts which could cause a switch in behavior (Reynoso, 2010).

Online Review (OR): a review of any aspect of a travel experience, such as accommodation, restaurants, and/or destinations (Burton & Khammash, 2010).

Online Social Networks (OSN): a pre-established network of friends and acquaintances who can serve as an audience for hospitality-related information (Boyd & Ellison, 2007; Kasavana, Nusair, & Teodosic, 2010; Wilson et al., 2012).

Satisfaction: a result considered to be a surprise affect based on the evaluation of a product or a consumption of an experience (Oliver, 1981).

Service: a variable concept considered to be the highly complex, elusive, subjective, and abstract to define in its relationship to quality (Hargreaves, 2015a, 2015b).

Social Media: a group of Internet-based applications that exist on the Web 2.0 platform and enable Internet users from all over the world to interact, communicate, and share ideas, thoughts, experiences, information, and relationships (Kaplan & Haenlein, 2010; Leung, Law, van Hoof, & Buhalis, 2013; Xiang & Gretzel, 2010).

Trust: the vulnerability of an individual to accept the actions of another individual, based on the expectation of performance (Mayer, Davis, & Schoorman, 1995; Ratnasingam, 2012).

User-Generated Content (UGC): digitally published content, such as comments, text reviews profiles, and consumer produced photographs, which provides a combination of fact, opinion, impression, sentiment, tidbits, experiences, and rumor, and which is created outside of normal professional practices (S. Burgess et al., 2009; Kaplan & Haenlein, 2010; A. N. Smith et al., 2012; Wilson et al., 2012).
Word-of-Mouth (WOM): all forms of information communication directed toward other consumers regarding ownership, usage, or characteristics of a specific product or service of the seller (Westbrook, 1987).
CHAPTER 2. LITERATURE REVIEW

The Hospitality Industry

A review of the literature indicates that there is no simple or clear definition to the term ‘hospitality.’ Brotherton (1999) examines the murky definitions of hospitality, as identified by industry researchers, dating back to the early 1980s. Through Brotherton’s (1999) work, it was discovered that E.H. Cassee defined hospitality in his 1983 text, *The Management of Hospitality*, as a harmonious mixture of tangible and intangible components: food, beverage, beds, ambience and environment, and behavior of staff. Reuland, Choudry, and Fagel (1985) defined hospitality as a process involving provider/employee and receiver/guest. The transfer of three elements occurs in this process: product (meal/bed), behavior of employees, and environment of restaurant/hotel (Reuland, Choudry, & Fagel, 1985).

Burgess (1982) further subdivided hospitality into private, public, and institutional contexts; these are likely to embrace a wide spectrum of different forms of hospitality. King (1995) examined the subdivision and posited that two types of hospitality that exist: private, considered to be acts by individuals toward other individuals in a private setting (like at home) and commercial, identified as meals, beverages, lodging, and entertainment provided for profit. King (1995) further identified four attributes to hospitality. The first attribute is a relationship between individuals, who take the roles of host and guest. The host generously provides for the well-being of the guest through comfort and entertainment and by providing food, drink, and sleeping accommodation (King, 1995). Second, a commercial relationship requires the guest to pay and behave reasonably; the guest can decide to go to a different location if the service is not satisfactory (King, 1995). A private (or social) relationship has an equal level of power, wherein the guest contributes to the relationship by being a person of good company with the
intention of reciprocating the exchange in the future (King, 1995). Third, a successful experience includes advanced knowledge of what would invoke pleasure in the guest and the flawless delivery of that experience (King, 1995). Finally, King’s (1995) fourth attribute is a process that includes arrival (greeting and making guests feel welcome), providing comfort and fulfillment of the guests’ wishes, and departure (thanking and offering a return invitation).

Hepple, Kipps, and Thomson (1990) provide examples of perishability to include promptness of meal service; availability of accommodation provision; presence of polite and attentive staff; maintenance of satisfactory standards of cleanliness at all times; and ‘after-sales service’ synchronic with consumption. Ingram (1999) looks at the meaning of hospitality for the millennial generation as the ability to provide food, refreshments, and accommodation for those who are away from home. Since the hospitality industry is often referred to in a familiar phrase as the “people industry,” this attention to interpersonal relationships becomes its point of distinction, as it is characterized by intense labor and its reliance on service instead of a product (H. Ingram, 1999).

### Lodging Accommodations

The term “lodging” is described as travelers spending money to stay at a place away from home. It was first mentioned by the Romans, who offered lodging for travelers and their slaves (“The evolution of the hospitality industry,” 1985). These types of lodging establishments were called taverns or inns and were located primarily along the travel ways (“The evolution of the hospitality industry,” 1985). Yet these guests did not enjoy the privacy that hotel guests currently appreciate, as rooms, and sometimes even beds, were shared (“The evolution of the hospitality industry,” 1985). During the sixteenth century, the first inn—able to accommodate up to 100 guests at a time—was built in London. Keep in mind that at this time, most of the
rooms were shared by more than one guest (“The evolution of the hospitality industry,” 1985). By the eighteenth century, private rooms were finally offered, although not private bathrooms. In fact, it was not until 1935 that the first bathroom was located inside a room (B. Sparks, 1993; “The evolution of the hospitality industry,” 1985). In 1855, the Parker House Hotel opened in Boston; it remains open today and is considered the oldest continuously operating hotel in the United States. Because the study’s sample of hospitality institutions is drawn from the Boston area, the Parker House Hotel is a part of the current study.

**Hotel types.**

A hotel is defined as an establishment in which the primary business is to provide lodging accommodations for the general public, and furnishes one or more of the following amenities: food and beverage service, housekeeping service, concierge, bell and door attendance service, laundry or dry cleaning, and the use of both the furniture and fixtures (Kasavana, 2013, p. 5). One way to classify the type of hotel is by size. The most common size categories are under 150 rooms, 150-299 rooms, 300-600 rooms, and more than 600 rooms (Kasavana, 2013, p. 5). Smith Travel Research (STR) has included a fifth designation in this size category system, and as a result their breakdown includes less than 75 rooms, 75-149, 150-299, 300-500, and greater than 500 rooms. Another way to categorize hotels can be on the types of services offered. Categories could include economy, budget, limited-service, select-service, full-service, suite, extended-stay, and luxury. Kasavana (2013, pp. 16–17) narrows this service category down to three options, upscale, mid-range, and economy/limited. STR, on the other hand, becomes rather detailed in this area with seven dimensions: luxury, upper upscale, upscale, upper midscale, midscale, economy, and independent. An alternative way to classify is by the target market that a hotel goes after securing as a component of their market segment; hotels then specifically are designed
to meet the needs of that traveler type. The various hotel classifications can be identified as commercial, airport, suite, extended-stay, residential, resort, lifestyle, bed-and-breakfast, vacation ownership and condominium, casino, conference center, and convention (Kasavana, 2013, pp. 6–12).

**Traveler types.**

Individuals will travel for a wide variety of reasons. It is important to understand the motivations for travel and identify types of travelers, as different categories of travelers have a tendency to rate the same hotel service level in different ways (Radojevic, Stanisic, & Stanic, 2015b). The four different categories of travelers are typically solo travelers, groups, couples, and families. Individuals tend to prefer small, inexpensive, and conveniently located hotels that offer complimentary Wi-Fi access (Radojevic et al., 2015b). Solo travelers can also include the subcategory of a business traveler. The purpose behind a business trip is to make sales calls, to attend a company meeting, to attend a trade association/convention, or to meet with people outside of the company (McCleary, Weaver, & Hutchinson, 1993). Travel for business purposes is typically not considered a choice but rather more of a requirement. These individuals typically are required to stay with a company-negotiated hotel that offers a corporate discount rate for volume business, provides access to a loyalty program with either points or mileage for rewards, and exists in close proximity to their employment office. Attributes of concern for these travelers include cleanliness, location (Knutson, 1988), security, service quality, room furnishings/condition, rate ranges, and hotel/brand reputation (McCleary et al., 1993). Groups are generally comprised of friends that enjoy inexpensive and conveniently located hotels with a lobby bar (Radojevic et al., 2015b). Couples prefer small sized branded hotels that offer complimentary Wi-Fi; location is the lowest concern for this group (Radojevic et al., 2015b).
Finally, families tend to prefer expensive branded hotels that are highly rated, where value is placed high on air conditioning and access to a lobby bar; this group values Wi-Fi the least (Radojevic et al., 2015b).

**Hotel Classification Systems**

The classification of hotels into a formal system dates back to 1905, with the inception of the Automobile Association (AA) in the United Kingdom (United Nations World Tourism Organization (UNWTO) et al., 2016). The first listing of hotels was available in a handbook in 1908; by 1912, the listing provided the introduction of the star system of ranking hotels (United Nations World Tourism Organization (UNWTO) et al., 2016). The AA produced its first hotel guidebook in 1967, with the live online directory available in 1996, and in 2011 they launched their mobile application (United Nations World Tourism Organization (UNWTO) et al., 2016). Callan (1990) emphasized that the rating systems should emphasize service quality to ensure that consumer expectations are met. While hotel ratings have accordingly placed an emphasis on service quality, the measurement in the rating is very subjective (Callan, 1995). The traditional hotel classification system relies upon the opinions of experts (United Nations World Tourism Organization (UNWTO) et al., 2016). Like other goods and services that are rated, hotels similarly depend upon expert-based rating agencies like Consumer Reports or Zagat, which evaluate and provide a score for products based on various performance measures (United Nations World Tourism Organization (UNWTO) et al., 2016). Users have found third-party product reviews to be more credible than the information provided directly by the company (United Nations World Tourism Organization (UNWTO) et al., 2016; Zhu & Zhang, 2010). In a study conducted by the United Nations World Tourism Organization et al. (2016), they found that the impact of guest reviews on a hotel classification increases while the star level decreases.
Apparently, consumers tend to react more positively to a hotel with three or four stars when they deliver a strong sense of value or improved service. Conversely, a five-star hotel would earn a lower rated review, as it may be more difficult for the hotel to exceed the expectations of the consumer (United Nations World Tourism Organization (UNWTO) et al., 2016). This study further dictates that officially classified hotels have experienced a substantial price premium, as consumers value the classification system designation. In the study, completed by Anderson and Lawrence (2014), the star level decreased when the reviews on hotel performance increased.

There is no single national or international rating standard for hotels. In Europe, the HOTREC (Hotels, Restaurants, & Cafes in Europe) association rating system Hotelstars Union is utilized (Radojevic, Stanisic, & Stanic, 2015a). The United States offers the rating of stars by Forbes-Mobil. Yet the star indications on the TripAdvisor website come from the imported data of their parent company, Expedia. As such, without an international assessment to examine the rating impacts of stars on satisfaction, any study would be inconclusive (Radojevic et al., 2015a); with this in mind, the present study uses the established rating system of diamonds by the American Automobile Association.

**Star rating.**

A hotel’s star rating is determined by a third party organization, Forbes Travel Guide. In 2009, Forbes merged with Mobil Travel Guide and adopted their rating system to evaluate hotels, restaurants, and spas on a 5-star system (Bagdan, 2013). The ratings are a combination of facility inspection scores (25%) and a service evaluation (75%) (Bagdan, 2013). A 5-star hotel is considered to be the most exceptional of all properties, as the rating indicates that its quality of service is nearly flawless, and it would have, among other features, a staff passionate enough to deliver a service experience beyond all expectations (Bagdan, 2013). A 4-star hotel is one that
has a distinctive setting with many interesting and attractive features. Personalized service and strong attention to detail are other features of these properties. Finally, a 3-star hotel is viewed as a nice property, yet not as well-regarded as a four or five star location (Bagdan, 2013).

Another star rating system is *The Red Guide*, provided by Michelin; the 100-plus year publication rates hotels on a three-star scale (Kasavana, 2013, p. 14). Ease of access to tourist locations and a strong sense of location are key components to these properties (Bagdan, 2013). The star ratings, which are determined by the physical aspects of a facility and the level of service quality offered, reflect the degree or extent of luxury of a hotel (P. Ingram & Roberts, 2000).

**Diamond rating.**

The diamond rating of hotels is a system provided by the American Automobile Association (AAA). The system ranks hotels on a five-diamond scale; standards are extremely strict, and it is very difficult to earn a five-diamond level. In fact, there are fewer than 50 five-diamond hotels in the U.S. (Kasavana, 2013, p. 14). In order for a hotel to be classified in the system, it must be inspected. Without such inspection and designation, it could lose credibility (Higgins, 2006). AAA uses professional inspectors to conduct in-person surprise property inspections. They offer the only rating system that uses a comprehensive, on-site professional hotel and restaurant guided system by their member priorities (American Automobile Association, 2016). While there is no international rating system, AAA’s rating system covers the U.S., Canada, Mexico, and the Caribbean (American Automobile Association, 2016). With more 55 million members, the AAA is deemed the largest motoring and leisure travel organization in North America (American Automobile Association, 2016).
The diamond rating for hotels represents a combination of the overall quality, range of facilities, and level of service offered by the property (American Automobile Association, n.d.). The ratings assigned reflect the status the property has earned based on the rigorous approval standards. The system offers ranking to nearly 28,000 hotels. The five-diamond designation is considered “Ultimate Luxury,” incorporating features like “sophistication and comfort with extraordinary physical attributes, meticulous personalized service, extensive amenities and impeccable standards of excellence” (American Automobile Association, n.d.). This is the most exclusive of categories, with only 0.4% of hotels earning this status. A four-diamond property, called “Refined,” is one that is “stylish with upscale physical attributes, extensive amenities and a high degree of hospitality, service and attention to detail” (American Automobile Association, n.d.). This category encompasses about 6% of the hotels designated here. “Distinguished” is the three-diamond category and includes hotels that are “multifaceted with enhanced physical attributes, amenities and guest comforts” (American Automobile Association, n.d.). The “Distinguished” category offers the most substantial volume, with 58% of the hotels falling into this category. The two-diamond category is called “Affordable,” containing hotels “with modestly enhanced facilities, décor and amenities” (American Automobile Association, n.d.). This category also incorporates a large volume, as 31% of the hotels are rated into this category. The final category, “Budget-oriented,” is a hotel that offers “basic comfort and hospitality” (American Automobile Association, n.d.). This is the second smallest category, with only 3% of the hotels ranked here. For the purposes of this study, hotels in the Boston market between the two- to five-diamond levels will be analyzed.

The Boston market hosts an extensive variety of luxury-related service properties. According to a recent article, the Boston market is considered to have a high concentration of
four and five diamond properties (Stenning, 2016). The sheer volume of properties designates Boston as one of the top five members of the lodging industry. Accordingly, it has been suggested by Bagnera (2016) that “Diamonds really speak to the amount and the quality of services and amenities that are available to the guests” (Stenning, 2016).

**Management**

Johnston (1994) examined the literature for an explanation of operations management, as it focuses on the task of managing the process or system for the production of goods and services from labor, plan and machinery, materials, and information. It is a body of knowledge, experience, and techniques covering topics like process design, layout, production planning, inventory control, quality management and control, capacity planning, and workforce management (Johnston, 1994).

Kay and Moncarz (2004) examine the various knowledge, skills, and abilities (KSAs) of hotel managers. In years past, industry professionals agreed that human resources-related skills were the most important for managerial success; this study and current research suggests that knowledge in areas of finance, marketing, and information technology can be more important than human resources (Kay & Moncarz, 2004). Upper level managers have a significantly higher knowledge of financial management and subsequently a higher salary bracket (Kay & Moncarz, 2004). Middle managers, poised for upward mobility, should focus their learning and goals on analytical skills and financial management knowledge (Kay & Moncarz, 2004). Nailon (1982) examined the history of hospitality and determined that managers are successful when they are versed in both conceptual and technical tools drawn from psychology, engineering, operations research, math, and standard daily operation components.
Leadership.

Leadership focuses on the creation of a common vision. It further motivates people to contribute to that vision and encourages them to align their own self-interests with that of the organization (Weathersby, 1999). Leadership is a process whereby one or more individuals attempt to frame and define the reality of others (Smircich & Morgan, 1982). Success is found more in the act of persuading, as opposed to commanding. Leaders who are successful know how to control their own emotions, recognize and guide the emotions in others, and motivate themselves in order to motivate others in the business to support the vision (Weathersby, 1999).

Management compared to leadership.

The management literature makes frequent comparisons to the term leadership, thus making the understanding of management more complicated. In many instances the terms are used interchangeably, and each term is said to influence the other (Deery & Jago, 2001). A link has been discovered between leadership and the development of managerial competence and effectiveness (Deery & Jago, 2001). Gregoire and Arendt (2004) explain the history behind the differences discovered between the concepts of management verses leadership. The distinction is first identified in an article by Zaleznik (1977), which describes managers as individuals who seek order and control, diffuse conflicts, and maintain daily operational control. Leaders, on the other hand, excel when they are in chaos, and as a result, they frequently look for new opportunities and alternative ways to achieve their goals (Gregoire & Arendt, 2004). Kotter (2001), in a reprint of the original 1977 article, determined that leaders prepare organizations for change and help them cope as they struggle through it. Management and leadership are two distinctly different systems of action, yet they complement each other well, as they are both necessary for the success in a business environment (Kotter, 2001). Good management focuses
on coping with complexity and bringing a sense of order and consistency, while leadership is about the ability to cope with change (Kotter, 2001). Complexity can be managed by (1) planning and budgeting, (2) setting a direction, and (3) organizing and staffing; while complexity can be led by (1) aligning people, (2) controlling and problem solving, and (3) motivating and inspiring (Kotter, 2001).

**Revenue Management**

Revenue management, considered by the hotel industry as a common practice, is a tool used for capacity-constrained service firms to manage demand and capacity (S. Choi & Mattila, 2005). It is considered to be the process of selecting customers by either accepting or rejecting guest reservations based on rate, length of stay, and arrival dates in order to maximize revenue for the operation (Vinod, 2004). The backbone of this concept is a demand-based variable pricing and optimal inventory control strategy (S. Choi & Mattila, 2005). In theory, when demand exceeds capacity, the hotel is able to sell the remaining limited supply they have at the most profitable rates, while when capacity exceeds demand, hotels are able to offer discounted rates to drive the sale of the remaining rooms (S. Choi & Mattila, 2005). Revenue management is frequently referred to or considered a part of yield management, which started in the airline sector of the hospitality industry. In the lodging industry, yield management allows for a wide variety of room rates for the exact same hotel room depending upon the time of the day, week, or year (Mattila & O’Neill, 2003). This can lead to price-performance inconsistencies, depending on the travel time experience, and discontent can arise based on experience, expectations, and actual performance (Mattila & O’Neill, 2003). A hotel must implement strategies to systematically and continuously maximize room revenue and manipulate rates in response to forecasted demand, and the changes in the market place (O’Connor & Murphy, 2008).
Financial indicators.

The lodging industry measures its success not only with bottom-line financial ratios like Gross Operating Profit (GOP) or Net Operating Income (NOI), but also with top-line financial indicators, such as average daily rate (ADR) and revenue per available room (RevPar) (O’Neill & Mattila, 2006). ADR is calculated by taking the total amount of revenue earned in one night and dividing it by the total number of rooms sold. RevPar is calculated by taking the total amount of revenue earned in one night and dividing it by the total available rooms in the hotel. These two ratios are considered by hotel executives to be the most crucial operating indicators when determining the value of a hotel (O’Neill & Mattila, 2006). In addition, the industry uses Occupancy percentage as an indicator, which is calculated by dividing the total rooms sold by the total rooms available. In addition to the financial ratios, sales growth and customer satisfaction are also critical indicators (Sainaghi, 2011). While the ratios will explain the primary variation in a hotel’s bottom line, other variables, such as the hotel’s age, type, and brand affiliation also have the potential to affect that bottom line (O’Neill & Mattila, 2006). The data that Smith Traveling Research (STR) reports upon includes ADR, RevPar, and Occupancy percentage indexes for each hotel, which can be compared against other hotels in a competitive set. For purposes of this study, the three top-level indicators, ADR, RevPar, and Occupancy, will be examined and used as a comparison.

Revenue per available room (RevPAR).

In general, when an investor gets involved in a lodging project, they are looking to ensure that their goal of maximizing their return is met. The RevPar calculation is the one ratio that is most heavily utilized as a factor (Ismail, Dalbor, & Mills, 2002a, 2002b). Since security analysts use RevPar as the key factor to moving the lodging-stock prices (Elgonemy, 2000), Wall Street
and the rest of the lodging industry relies on this ratio as a benchmark of industry performance (Ismail et al., 2002b; Jacobs, 1997). As a tool, RevPar is used to forecast room revenue, estimate and then forecast a hotel’s market share, determine employee productivity, and provide an indication of customer satisfaction levels (Ismail et al., 2002a, 2002b). RevPar creates an estimate, by taking the occupancy levels in combination with the average daily rate, to provide a view of both supply and demand, as a lodging–market cycle into one index (Gallagher & Mansour, 2000; Ismail et al., 2002b).

The study completed by UNWTO et al. (2016) used online reputation data sourced from ReviewPro and hotel performance data sourced from Smith Travel Research. The researchers were able to demonstrate that a one percent improvement in review scores would translate into approximately a one percent gain in RevPar. This study demonstrates that as the chain scale of a hotel decreases, there is an increase in hotel performance when the guest review score measures the online reputation of a hotel. Patel (2011) found a correlation between the TripAdvisor Popularity Index ranking and RevPar, in which 89% of the hotels that had a high index ranking had a high RevPar.

**Average daily rate (ADR).**

Taking the total revenue earned and dividing it by the total number of rooms sold determines ADR. Since this ratio does not take into account any rooms out of order, it is primarily used as an internal ratio and not for market analysis comparison. In the study completed by the UNWTO et al. (2016), the concept of integrating online reviews into the classification system to better assist a guest was examined. This brings to light the question of whether or not the average daily rate would really increase with the adoption of such a strategy. The travel market is considered to be inelastic, and as such, consumers most likely will not travel
more because the classification system in hotels have improved. However, they may be willing to pay more for a product that does a better job of meeting their expectations (United Nations World Tourism Organization (UNWTO) et al., 2016). This ratio can be calculated with the data set provided by STR, so it will be used in this study.

**Occupancy.**

This ratio is calculated by taking the total number of rooms sold and dividing it by the total number of rooms available in the hotel. In general terms, this percentage is discussed and used as a comparison tool against other hotels in the market set, but it only identifies the actual demand in the hotel. Revenue management strategies look at this percentage and make determinations as to whether they increase the occupancy by possibly lowering the rate available for guests to book. The goal of any hotel is to operate at full occupancy. Since this ratio can also be calculated with the data provided by STR, it will be used in this study.

**Service Industry**

One of the many challenges encountered in the hospitality industry is the simple fact that properties provide a service for their guests, which makes this experience an intangible commodity. The intangibility of service creates difficulty in transference to the measurement of quality (Redman & Mathews, 1998). Since the services that are provided are not able to be seen or touched prior to purchase, it leads to a greater challenge for the vendor in communicating their message about what they have to offer (Redman & Mathews, 1998). A hospitality enterprise may find it difficult to understand how consumers perceive services and service quality, due to the intangibility of a service experience (Parasuraman, Zeithaml, & Berry, 1985). In reality, a service cannot be effectively evaluated until it has been consumed (Redman & Mathews, 1998).
Since the delivery of the service becomes the critical factor in the experience, the employee engagement in the process is an important factor to creating a positive experience (Redman & Mathews, 1998). According to Redman and Mathews (1998), the employees “carry the responsibility of projecting the image of the organization and it is in their hands that the ultimate satisfaction of the guest rests.” In addition, an important factor to recognize is that in order to provide such service, an employee will potentially have to interact in close proximity to the guest (Redman & Mathews, 1998). Therefore, the positive or negative behavior of the employee has a direct impact on the experience of the guest. In this situation, the guest will be close enough to observe the encounter provided by the vendor. This leads to another challenge: the service cannot be separated from the product or consumer (Redman & Mathews, 1998), essentially becoming a package deal. In this light, the goal is to provide an experience that meets (or exceeds) the needs of the guest.

**Service quality.**

Since service means different things to different people, it is considered the most complex, elusive, subjective and abstract concept to define (Hargreaves, 2015a, 2015b). In a recap of the service quality review of literature completed by Parasuraman et al. (1985), an underlying theme to service quality is that “perceptions result from comparison of consumer expectations with actual service performance” (Parasuraman, Zeithaml, & Berry, 1985). The evidence to measure the intangibility of service is limited to the physical facilities, equipment, and the personnel of the actual provider (Parasuraman, Zeithaml, & Berry, 1985). Through the work of Parasuraman et al. (1985) in the focus groups, they were able to identify ten key categories, which are considered service quality determinants. The determinants are reliability, responsiveness, competence, access, courtesy, communication, creditability, security,
understanding, and tangibles (Parasuraman, Zeithaml, & Berry, 1985). Over time, these determinants have been reduced due to overlapping characteristics; however, it serves as a framework upon which to base the judgment of quality. In simpler terms, it can be defined as the comparison that a customer will make between what they expect to experience and the perception of the service they have received (Gronroos, 1988).

**Service measurement.**

Attributes of service can contribute to service quality in different ways, when satisfiers and dis-satisfiers of service are identified; satisfaction occurs when they are present, while conversely, dissatisfaction arises when they are absent (Johns & Howard, 1998; Johnston, 1995). Johnston (1995) expanded upon the ten Parasuraman et al. (1985) characteristics by creating 12 attributes, retaining many of the original characteristics but replacing words like “tangibles” with “aesthetics” and “comfort” and “cleanliness” (Johns & Howard, 1998). The ten determinant dimensions were narrowed down to five, thus creating the popular instrument known as SERVQUAL (Getty & Getty, 2003; A. Parasuraman, Zeithaml, & Berry, 1988). The Lodging Quality Index (LQI) was a spin-off and used all of the original ten SERVQUAL dimensions (Getty & Getty, 2003). Another system, LODGSERV, was specifically designed for the lodging industry, which includes 36 items of various aspects based off of the five dimensions of service quality: tangibles, reliability, responsiveness, assurance, and empathy (Knutson, Stevens, Wullaert, Patton, & Yokoyama, 1990).

**Acceptable service experience.**

In looking at an example of restaurant guests, Johns and Pine (2002) believe that restaurant service is viewed by the guest in terms of a set of attributes, or characteristics that make it desirable, such as food quality and convenient location. Customers add their own value
to each of these attributes and then weigh up the overall value to determine the importance of the experience in what is considered the attribute-value theory (Johns & Pine, 2002). The evaluation of the restaurant then creates an attitude falling into one of two types: a pre-experience attitude (expectation) or a post-experience performance evaluation (Johns & Pine, 2002). To further this theory, the concept of the expectancy disconfirmation theory is put into place, when the consumer gauges their experience against how the actual performance confirms or disconfirms their expectations (Johns & Pine, 2002). If there is a favorable outcome to the experience, it will lead to repeat business.

**Customer Satisfaction**

Customer satisfaction is defined as the difference between expectation and performance and the difference between quality and satisfaction (Khuong & Hanh, 2016). The satisfaction of the consumer is further described by Olsen (2002) as “a composite construct, as defined by Oliver (1997), the consumer’s fulfillment response, the degree to which the level of fulfillment is pleasant or unpleasant (p.28).” Satisfaction is known to be inter-correlated with perceived quality, as noted by Olsen (2002) through the research presented by Bitner and Hubbert (1994) and Churchill and Surprenant (1982). Satisfaction can be considered a surprise experience based on the evaluation of a product or the consumption of an experience (Oliver, 1981). The determination of satisfaction occurs after the experience has been encountered, while quality is not the same process (A. Parasuraman, Berry, & Zeithaml, 1991b).

Satisfaction is ultimately a condition that arises when the perceived service or quality has exceeded the expectation (Purnasari, Yuliando, Guritno, Schlich, & Pawelzik, 2015). Customer satisfaction can be defined by not only the standard or quality of the product but also by the relationships among the customers, the product or service, and the provider (Cengiz, 2010).
Customer satisfaction is related to the encounter a customer has with a specific organization (Jones & Suh, 2000; Radojevic et al., 2015a)—in the case of this study, with a hotel. There can be two types of satisfaction definitions, as summarized by Yuksel and Yuksel (2001), process-oriented and outcome-oriented. Process-oriented satisfaction focuses on the entire experience process, whereas outcome-orientated satisfaction emphasizes the end state (Ren, Qiu, Wang, & Pearl, 2016; A. Yuksel & Yuksel, 2001; D. A. Yuksel & Yuksel, 2001).

The psychological state of satisfaction results in the positive emotion surrounding disconfirmed expectations that could be coupled with the prior feelings or thoughts of that customers experience (Oliver, 1981). Expectations develop based by two components: the probability of occurrence and the evaluation of the occurrence (Oliver, 1981). After reviewing numerous theories, Pizam and Ellis (1999) identified numerous theories to customer satisfaction: expectancy disconfirmation, assimilation or cognitive dissonance, contrast, assimilation-contrast, equity, and attribution (Ren et al., 2016).

The very personal aspect to the experience that an individual encounters will greatly influence the level of satisfaction one receives (Khuong & Hanh, 2016; Wreden, 2004). The various situations that provoke satisfaction can include an exemplary encounter with a product or service, an experience, a purchase decision, a salesperson, a service provider, another attribute, or any of those (Khuong & Hanh, 2016; Wreden, 2004). Commitment has been found to lead to positive attitudes and is strongly related to customer satisfaction (Belanche, Casaló, & Guinalíu, 2013; Casalo, Flavián, & Guinalíu, 2007; C.-L. Hsu, Liu, & Lee, 2010; Purnasari et al., 2015). Commitment can be defined as the relationship amongst parties, which then becomes the center of a relationship marketing experience; it only occurs when the relationship is deemed important (Morgan & Hunt, 1994; Purnasari et al., 2015).
Experience.

To better understand satisfaction, one must understand the definition of experience. Experience can be referred to as the takeaway impressions that customers have after encountering products, services, and businesses (Carbone & Haeckel, 1994; Ren et al., 2016). Myer and Schwager (2007) define customer experience as both the internal and external subjective response that customers have toward any direct or indirect contact with a company. Customer experience can further be defined by Shaw (2005) as the interaction between both an organization and a customer, which comprises a blend of an organization’s physical performance, the senses which are stimulated, and the emotions that are evoked. Each aspect of customer expectations are experienced across all moments of contact (Ren et al., 2016; Shaw, 2005). Experience, therefore, is a subjective perception that is felt from within and strongly relies on consumption context (Ren et al., 2016). Another important aspect to the experience is the component that interactions with other human or physical elements play in shaping the experience (Ren et al., 2016).

Various studies have examined and identified the myriad dimensions of the hospitality experience a guest can encounter. Hemmington (2007) explained his version of the five dimensions found in the hospitality experience as the host-guest relationship, generosity, theater and performance, numerous small surprises, and safety and security. Knutson (2009) identified dimensions that were more broad; his four included environment, accessibility, driving benefit, and incentive. To explain this aspect of dimensions even further, Walls (2013) expanded even more with only two dimensions, physical environment and human interaction. Different dimensions are examined in different ways, one of which is by the service style offered. Luxury and full-service hotels offer a much more enhanced customer experience setting that is
influenced by the sensory effects of sight, sound, touch, smell, and taste (Pine & Gilmore, 2011; Ren et al., 2016; Schimit & Simonson, 1997; Shaw, 2005).

Customer satisfaction can be related to the intention to recommend an experience. Upon the completion thereof, the initial expectation of a customer has been fulfilled; when a consumer has been delighted with the service, they then become a loyal guest and recommender of the provider to their family, friends, and colleagues (Cetin & Dincer, 2014). A study by Fu, Ju, and Hsu (2015), along with another by East (2000), proved that there was limited association between satisfaction and the intention of providing eWOM.

**Customer satisfaction measurement.**

Customer satisfaction must be tied back to the concept of service quality in order to better understand how to measure the effects of the experience. According to Ekinci (2002), there are two service quality measurement systems, North American and Nordic European. The North American system, which is the system used in the present study, is represented by SERVQUAL, a five-factor model developed by Parasuraman et al. (1991a; 1991a, 1988; 1985)—easily considered to be the most extensively applied instrument in the service industry. The five dimensions under the scale are reliability, responsiveness, assurance, empathy, and tangibles (A. Parasuraman et al., 1988). The gap that develops between expectation and perception will induce either a sense of satisfaction or dissatisfaction (Ren et al., 2016). SERVQUAL has served as the foundation and basis for other quality measurement instruments, such as LODGSERV (Knutson et al., 1990) and Lodging quality index (LGI) (Getty & Getty, 2003); however, neither have achieved as high a level of popularity (Ren et al., 2016).
Dissatisfaction.

A guest who has undergone a negative experience and is highly dissatisfied with it is more likely to engage in spreading information about experience via WOM (Baber et al., 2016; Mangold, Miller, & Brockway, 1999). When a traveler is dissatisfied, they are unlikely to patronize the services in the future and are more willing to spread negative WOM (Cetin & Dincer, 2014), as opposed to offering a recommendation.

Hotel attributes.

Various studies examine the attributes of a hotel experience that impact the satisfaction level of a consumer (Radojevic et al., 2015a). Such attributes can include cleanliness, price, location, security, personal service, physical attractiveness, opportunities for relaxation, standard levels of service, appealing image, reputation, existence of on-site restaurant options, convenient parking, and interior and exterior aesthetics (Ananth, DeMicco, Moreo, & Howey, 1992; Barsky & Labagh, 1992; Cadotte & Turgeon, 1988; McCleary et al., 1993; Radojevic et al., 2015b; Rivers, Toh, & Alaoui, 1991; Wilensky & Buttle, 1988). For purposes of this study, the attributes that are found and rated on the website TripAdvisor will be used: value, location, room, cleanliness, service, staff, and overall impression. The most prevalent factors, as found by Choi and Chu (2001) and confirmed in other studies (Shankar, Urban, & Sultan, 2002; Zhou, Ye, Pearce, & Wu, 2014), were staff quality, room quality and value for the money paid. When qualifying the satisfaction level of hotels, Chaves, Gomes, and Pedron (2012) found that rooms, staff, and location were the most frequent terms. In a study conducted by Xiang and Krawczyk (2016), the highest frequency attributes were staff, service, and cleanliness, and location. The Zhou, Ye, Pearce, and Wu (2014) study uncovered 23 attributes in their study, including room facilities, general hotel facilities, price, location, service, and staff. A thorough analysis of
attribute studies by Hargreaves (2015a, 2015b) discovered that satisfaction was impacted by attributes like cleanliness, security, value for money, and staff courtesy (Atkinson, 1988); room cleanliness and comfort, convenience of location, prompt service, safety and security, and friendly employees (Knutson, 1988); and employee attitude, location, and rooms (Barsky & Labagh, 1992).

Value.

The price paid for a hotel room plays an important role in shaping guest perceptions as they determine the value for the product they have consumed. In general, the expectations of guests is by offering a higher price for their product, a hotel will consequently produce a higher level of service (Mattila & O’Neill, 2003; Matzler, Renzl, & Rothenberger, 2006; Radojevic et al., 2015a). Mohsin and Lockyer (2010) found the most significant attribute in their study to be value for money. This ties to the Berezinger et al. (2016) study, which discovered that the finance category was most frequently cited in negative reviews.

Location.

The old adage ‘Location, location, location’ is a crucial aspect to the hospitality industry. Location serves as a powerful force to bring tourists to a specific destination and/or establishment and in fact has been found by researchers to be one of the most important agents of satisfaction (Brotherton, 2004; Clemes, Gan, & Ren, 2010; Darini & Khozaei, 2016; Nash, Thyne, & Davies, 2006; Xu & Li, 2016). Location was not a factor for suite hotels without food and beverage (Xu & Li, 2016). In budget hotels, Ren et al. (2016) found that location only accounted for a very small amount of satisfaction with the experience. As a result, it is possible that the location is an influential factor prior to booking a budget hotel, as the decision is driven more by price (Ren et al., 2016). Typically, once a guest arrives at a hotel, they are pleased the
experience and thus are less mindful of the location when they try to recall it later. Location can play more of an integral role during the selection phase of deciding upon a hotel, as the guest is more concerned with rate; hence, the issue of location becomes less evident when rating the location.

Another aspect to consider is the influx of brands and chains available in a geographic area. As a city grows, available hotels in the area become less difficult to find (Ren et al., 2016). K.L. Xie, Zhang, and Zhang (2014) found that the geographic location of a hotel was the most unchangeable attribute of a hotel, as it cannot be improved by the staff once the property has been built, and efforts to relocate are unlikely to come to fruition (Madlberger, 2014). If a hotel provides a reasonable explanation for its location, it will positively influence the relationship between location rating and future hotel performance (K. L. Xie et al., 2014). Since location is considered to be beyond the control of the host, denial of the issue does not generate trust, but conversely, confession or attributing responsibility will indeed increase consumer trust (Abramova, Shavanova, Fuhrer, Krasnova, & Buxmann, 2015). This tactic is considered to be a strong positive defensive strategy (Coombs, 1998, 2006) to build trust in a situation that is perceived as uncontrollable by the host. For the hotels that have a truly unfavorable location, the responding management team must focus its efforts on other areas to compensate for this weakness (Madlberger, 2014).

In a study by Darini and Khozaei (2016), the positive aspects of a location as found in their qualitative study reflect the closeness a hotel has to public transportation services, the airport, the city center, shops, restaurants, and tourist attractions. During the site selection phase of a hotel new-build, it would be critical to be near these locations. Hotels will do well when they clearly explain their proximity to these attractions. When travelers have a satisfactory
experience with the public or private transportation options they utilize to get to the hotel, they are more apt to be satisfied with the location (Madlberger, 2014). Cost of these transportation services can also impact perceptions about location (Khoo-Lattimore & Ekiz, 2014).

The reason(s) for which a traveler is staying at the hotel is another factor to consider. A private tourist, solo traveler, couple, or family may move to a variety of attractions, thus spending more time at other destinations; whereas a business traveler may not take part in tourist-related activities and therefore may stay at the destination hotel for a longer period of time (Madlberger, 2014). When using terms to describe the location, it could draw greater attention to frame the location as within walking distance versus driving distance to an attraction (Khoo-Lattimore & Ekiz, 2014); yet overselling what the location has to offer can be disastrous and result in negative feedback. It is also important for a hotel to easily be locatable (Darini & Khozaei, 2016; Khoo-Lattimore & Ekiz, 2014). Lawrence and Perrigot (2015) found that customers were more satisfied with the location of company-owned units than with the location of units owned by franchisees. In order to generate customer satisfaction, both location and accessibility are important, as they help customers find the hotel easily, provide a pleasant view of the surroundings, and save the customer time when visiting nearby places of interest (Sim, Mak, & Jones, 2006). Other pull factors for a location include wilderness, outstanding scenery, major natural and manmade attractions, shopping malls, and transit stations (Baloglu & Uysal, 1996).

**Room.**

The actual accommodation, the room, is one of the core components, especially to an individual on a vacation (Khoo-Lattimore & Ekiz, 2014). Room quality was found to be an influential determinant of customer satisfaction in the study by Xu and Li (2016). Customers
spend most of their time in the room during their stay at a hotel. Therefore, a room offering a nice, clean, spacious, and comfortable quarters will enhance customer service (Xu & Li, 2016). In the study by Ekiz, Khoo-Lattimore, and Memarzadeh (2012) and Khoo-Lattimore and Ekiz (2014), the room was frequently identified for improvement by guests, including upgrades in the physical attributes of the hotel room and the quality of amenities provided in the room (Berezina et al., 2016). However, in a more recent study, room features and furnishings—rated as one of the top three attributes for satisfaction—are considered a valid reason not to recommend a hotel (Berezina et al., 2016), and they are found as a commonality in negative reviews. Since the tangibles (e.g., bed, carpet, towels, chairs, and tables) are easy triggers to generate eWOM, it is recommended that management address these issues to reduce potential dissatisfaction (Berezina et al., 2016).

The Barreda and Bilghian (2013) study found that 42% of the comments, the highest percentile in their study, come from the room category, which also included bathroom interiors. In the study by Sparks and Bradley (2014), the responses indicated that features of the room, such as small size, uncomfortable beds, lack of power outlets, and poorly designed bathrooms, were noted most frequently in online review comments. Comments about the view from the room were also one of the common themes discussed in reviews regarding location; these were followed by space, comfort, great beds, and cleanliness (Khoo-Lattimore & Ekiz, 2014). In a room the intangible aspect (i.e., the view), as well as the tangible features of the actual room, are points of satisfaction. If a hotel has a view worth discussing, it could lead to an increase in satisfaction levels if the hotel operators use that as a promotional point (Khoo-Lattimore & Ekiz, 2014).
Cleanliness.

Hotel cleanliness is an attribute that lies directly in the hands of hotel management and the employees’ initiative to maintain it (K. L. Xie et al., 2014). If too many excuses are provided by management about a hotel’s hygiene condition, the perception of the cleanliness—and, by extension, the rating by the consumer—will decrease (K. L. Xie et al., 2014). Customers frequently mention that they appreciate when the rooms, lobby, café, and restaurant are clean (Darini & Khozaei, 2016). Franchise units were found to outperform company-owned hotels with regards to satisfaction for cleanliness measures taken (Lawrence & Perrigot, 2015). Abramova, Shavanova, Fuhrer, Krasnova, and Buxmann (2015) found that cleanliness was a controllable variable by the host and led to higher negative reviews when not addressed properly.

Service.

Bilim and Basoda (2014) found that while consumers pay attention to many different issues, services and related areas are considered to be the prevalent. Lawrence and Perrigot (2015) found that customers were more satisfied with the level of service received at company-owned hotels over that of franchise hotels. The various service components that make customer satisfied may also make them dissatisfied if they are not provided or are found to be delivered inadequately (Berezina et al., 2016). The Barreda and Bilgihan (2013) study found that 25% of the guest comments in the service experience category actually were accounted for in the staff category by having a friendly employee interaction. The finding of positive staff comments was similar to the positive comments found in the Berezina et. al. (2016) study. In the Khoo-Lattimore and Ekiz (2014) study, conclusions showed that the customers equated the facilities, amenities, and conveniences offered by hotels to service (e.g. room upgrade, late check-out, umbrellas, special gifts, free shuttle, etc.).
**Staff.**

Service staff, and its related characteristics, were determined to be the most evaluated points by consumers (Bilim & Basoda, 2014). In the study conducted by Xu and Li (2016) found staff performance to be the second most influential factor on customer satisfaction. In the hospitality industry, there is a large frequency of interactions between the guest and the hotel staff, so the guest is looking for a positive experience (Kassinis & Soteriou, 2003). Staff members that are both friendly and helpful upon first contact and throughout the stay generate a higher level of customer satisfaction (Berezina et al., 2016; Mohsin & Lockyer, 2010; Xu & Li, 2016). Both Ekiz et al. (2012) and Berezina et al. (2016) found the attitude, behavior, knowledge, skill, and passion of the hotel staff to be the most common components of both negative and positive reviews. When a reviewer provides a positive recommendation, they tend to detail the staff performance—e.g., by including names—and then go into the room details (Berezina et al., 2016). When the review is negative, the author tends to focus on the more tangible aspects, like the dissatisfactory aspects of the room, over the staff experience (Berezina et al., 2016).

One of the management theories that J.W. Marriott, Jr. has continued to instill in his company is to keep employees happy, as in turn they will deliver exceptional customer service. Based on the results of these various studies, if hotel managers work to keep their employees happy and satisfied, they in turn will want to provide satisfactory service, which will further generate an increase in business, revisit intention, and positive feedback from guests.

**Word-of-Mouth (WOM)**

This form of communication has become a dominant force in the marketplace (Confente, 2014). Westbrook (1987) defined WOM to include all forms of information communication that
are directed toward other consumers regarding ownership, usage, or characteristics of a specific good, service, or the seller. WOM further defined as informal, person-to-person communication that is restricted to face-to-face interaction between a perceived noncommercial communicator and a receiver regarding a brand, a product, an organization, or a service (Arndt, 1967; Harrison-Walker, 2001; Turner, 1986; Yang, 2013). Through the research, a defining characteristic that has emerged is that the source of a message is considered to be independent (Litvin et al., 2008). Therefore, Litvin, Goldsmith and Pan (2008) define WOM as a form of communication between consumers over a product, service, or company, in which the source is considered independent of commercial influence. WOM is different from that of advertising, as it is produced by an independent source and not paid by the company (Stern, 1994); hence, customers consider it more genuine and credible (Ogden, 2001). It is perhaps the most influential communication media form at both delivering product and/or service information provided by consumers (Arndt, 1967; K. T. Lee & Koo, 2012). Stern (1994) explains that WOM involves the exchange of an oral message between a source and a recipient who speak directly in real life. The spoken WOM communication vanishes upon being uttered, as it is a spontaneous and ephemeral experience. Regardless of a weak or strong tie, WOM has a deeper influence and greater capacity for information dissemination than advertising (Goldenberg, Libai, & Muller, 2001). Research has confirmed that WOM has a powerful influence over perceptions, expectations (M. Lee & Youn, 2009; Webster, 1991; Zeithaml, Berry, & Parasuraman, 1993), attitude, and customer behavior (Dye, 2000).

Since products in the hospitality industry are typically intangible in nature, the WOM process helps to eliminate the element of risk for other consumers (Klein, 1998; Z. Zhang et al., 2010). WOM has been shown to be the most important external source of information available
to reduce the purchase risk a consumer might have (Lutz & Reilly, 1974; United Nations World Tourism Organization (UNWTO et al., 2016). One of the advantages of analyzing WOM is the opportunity to identify aspects that made customers satisfied, so which lowers the cost of attracting new customers and enhances the overall reputation of the business—dissatisfied customer naturally have the opposite effect (E. W. Anderson, 1998; Confente, 2014; Fornell, 1992). Satisfaction of a product or service can lead to WOM referral, which can be used by potential customers as an important source of pre-purchase information (input WOM). In turn, it will serve as a recommendation to other consumers after the experience (output WOM) (Buttle, 1998).

While the advances of the Internet have been a fabulous way to allow for consumer research, it has become rather overwhelming prior to the decision-making purchase process due to the sheer volume of materials available (D. Smith, Menon, & Sivakumar, 2005). One of the methods used to reduce the information volume is to seek recommendations from electronic agents, customer service employees, and other online peer consumers (D. Smith et al., 2005). Recommendations can come in the format of either peer or editorial (D. Smith et al., 2005). The research from Herr, Kardes, and Kim (1991) suggests that consumers prefer WOM information over professional product attributes. The value behind traditional WOM has been the perception of trustworthiness, since the information is based on the experiences of others (R. E. Smith, 1993). Factors that make eWOM more influential over traditional WOM are speed, convenience, one-to-many reach, and the absence of pressure found in face-to-face communication (T. Sun, Youn, Wu, & Kuntaraporn, 2006). One of the challenges exhibited by the traditional form of WOM is that it is limited by boundaries, both geographic and social
(Ellison & Fudenberg, 1995; United Nations World Tourism Organization (UNWTO) et al., 2016).

**Electronic Word-of-Mouth (eWOM)**

A technological development from WOM, eWOM is defined as ‘any positive or negative statement made by potential, actual, or former customers about a product or company, which is made available to a multitude of people and institutions via the Internet’ (Filieri & McLeay, 2013; Hennig-Thurau et al., 2004). In an electronic environment, the service provider has the opportunity to be exposed to a greater and more diverse audience more quickly (Xie, Miao, Kuo, & Lee, 2011).

Jon Zilber first coined the phrase “word-of-mouse” (as opposed to word of mouth) in 1991 to refer to online user-generated feedback, or online WOM recommendations, created by using a computer mouse (Callebaut, 2006; Stringam & Gerdes, 2010). Yang (2013) uses the same terminology to describe eWOM as communication that takes place through the use of technology on the Internet, allowing information to be shared amongst both friends and strangers (M. K. O. Lee, Shi, Cheung, Lim, & Sia, 2011). Litvin, Goldsmith, and Pan (2008) adapted the Westbrook (1987) WOM definition to describe eWOM as all forms of informal communication directed towards consumers through Internet-based technology connected to the usage or characteristics of specific goods and services or their sellers. Compared to traditional WOM, eWOM is considered to be more influential due to its speed, convenience, one-to-many reach, and notable absence of face-to-face human pressure (T. Sun et al., 2006). Another advantage of eWOM is that the time needed to make and form decisions may decrease, resulting in a more satisfied decision outcome (Schiffman & Kanuk, 2009).
eWOM often takes the form of online reviews, online recommendations, or online opinions. The emergence of these new technology tools has gained importance (Serra Cantallops & Salvi, 2014). eWOM offers the opportunity for individuals to share experiences with others all over the world (Dellarocas, 2003; Inversini, Marchiori, Dedekind, & Cantoni, 2010), which takes away the power of companies by putting the communication message in the hands of the consumers (Hennig-Thurau et al., 2004). Now the power of influence rests with the consumers themselves in the form of online interpersonal influence—the fundamental principle that consumers have the ability to influence others in the online setting of the Internet (Litvin et al., 2008; Senecal & Nantel, 2004). As previously stated, this ability is more critical in the hospitality than in many other industries that largely vend material goods: since the nature of hospitality is to provide intangible products, a consumer will not have the opportunity to evaluate experiential elements prior to consumption, and thus the element of interpersonal influence becomes critical (Litvin et al., 2008). Hospitality products are also considered to be seasonal and perishable, making them a high-risk purchase decision for the consumer and a stressor for the provider to sell (Litvin et al., 2008). Because the products and services of the hospitality industry can vary due to their intangibility, greater involvement from all parties is needed (Gremler, Gwinner, & Brown, 2001; Murray & Schlacter, 1990). The hospitality industry is also known as the service industry—a challenge when it comes to the inseparability of the production of the service and its consumption (Gronroos, 1988; Lindberg-Repo, 2001). An added challenge is the nature of the hospitality business, which tends to be competitive, therefore, operations, which manage online influence well, may actually have a competitive advantage. One of the successful aspects to eWOM is the component of its global nature and enduring content; hence, it
can play are more important role in a consumers purchase decision process (United Nations World Tourism Organization (UNWTO) et al., 2016).

The cost implications associated with these two forms of communication should be addressed for clarity. Burke (1996) determined that the worth behind WOM communication included the promotional mix of business along with other promotional tools. While one might consider online promotion to be a costless marketing tool, that assumption has been rejected, as consumers perceive eWOM to be an effective tool to acquire contacts and inquiries for products and services they are interested in purchasing (Baber et al., 2016). Once a business invests in this distinctive type of online communication, it can achieve remarkable results. Ahrens, Coyle, and Strahilevitz (2013) discovered that when an incentive is offered and increased, the volume of members, signups, and number of customers generating WOM feedback (and particularly eWOM feedback) will also increase. Hence, investing one’s resources into the development of eWOM will yield productive results (Ahrens et al., 2013; Baber et al., 2016).

For those seeking marketing data and input, the development of eWOM has provided distinct advantages. Traditional WOM is not observable or controllable as a method of communication, which can restrict the various stages of marketing for the seller. Conversely, eWOM has the ability to be a tool that can be both measured and controlled, a major benefit to a seller employing a marketing strategy. When used correctly, eWOM can reach many different consumer segments more effectively than WOM (Baber et al., 2016).

**Other eWOM classifications.**

There are additional subcategories of eWOM that add even more depth to this concept. For example, ‘e-commerce eWOM’ (EC-eWOM) is a form of online reviews provided by various e-commerce websites. They too play an integral role in helping consumers make
decisions (C. M. K. Cheung & Thadani, 2012; Davis & Khazanchi, 2008; Duan, Gu, & Whinston, 2008; Yan et al., 2016). eWOM in social media (SM-eWOM) has taken on a major role in promoting sales, especially with the emergence of social commerce (Yan et al., 2016). Consumers have been more frequently turning to social media to share their thoughts about the quality of goods or services that they have purchased or about their experiences in the hospitality industry. This form of SM-eWOM includes posts by consumers on Twitter, Facebook, Weibo (the Chinese version of Twitter), and similar outlets (Yan et al., 2016). Impression management, emotion regulation, information acquisition, social bonding, and persuasion all impact the consumer via the forms of SM-eWOM (J. Berger, 2014; Yan et al., 2016). When consumers are unable to make purchasing decisions based on the information available on EC-eWOM, they then turn to the channels of SM-eWOM.

Microblogging WOM (MWOM) takes eWOM one-step further. This is a new type of eWOM communication that combines the real-time aspect and personal influence of traditional WOM with eWOM’s ability to reach large audiences through Twitter or other online social media (Hennig-Thurau et al., 2004; Liang & Sun, 2014). MWOM has the ability to reach a large number of potential consumers with a very brief post, quicker than an online review or other forms of eWOM (Liang & Sun, 2014).

WOM can be further subdivided by its degree of separation from the experience. Primary WOM consists of information obtained in a first-hand direct consumer experience (Hornik, Satchi, Cesareo, & Pastore, 2015). Secondary WOM (SWOM) is is secondhand information that a consumer has heard from others. SWOM can be traced back to various advertisements, commercial editorials or former WOM episodes (both primary and secondary in nature) (Hornik et al., 2015). Approximately 70% of all eWOM is considered to be SWOM, so
understanding the message and the bias associated with it is critical (Hornik et al., 2015; Meiners, Schwarting, & Seeberger, 2010).

One of the core dimensions of WOM is its valence, since the communication of WOM can either be negative or positive (Hornik et al., 2015; Vázquez-Casielles, Suárez-Álvarez, & Río-Lanza, 2013). Positive WOM (PWOM) is identified as a positive experience, whereas, negative WOM (NWOM) is a result of a negative experience or negativity bias (DeAngelis, Bonezzi, Peluso, Rucker, & Costabile, 2012; Hornik et al., 2015). Hornik et al. (2015) found that people are more sensitive to negative information; in turn, they will disseminate it more often to a larger number of people for a greater period of time and with more intensity. Via the Internet, people are more often found to believe negative over positive secondary information (Hornik et al., 2015). Bolfing (1989) found that hotel guests are more likely to voice a complaint over a social networking platform when they perceive the problem to be severe in nature, as they feel it is their responsibility to keep management informed. On the other hand, positive reviews written with a higher quality presentation can enhance eWOM credibility and the purchase intention (Tsao & Hsieh, 2015). A positive review that incorporates greater detail (e.g., including pictures, detailed descriptions, greater specificity, and objectivity) allows a reader to more easily perceive the value of the conveyed information (Awad & Ragowsky, 2008; Jiménez & Mendoza, 2013; D. H. Park, Lee, & Han, 2007; Tsao & Hsieh, 2015; L. Zhao, Lu, Wang, Chau, & Zhang, 2012).

Independent platforms display a greater influence on the persuasiveness of eWOM (Tsao & Hsieh, 2015). The reviews on independent sites provide more diagnostic information compared to a corporate platform; hence, the effects are more pronounced for WOM. In contrast, negative reviews on independent platforms that are of poor quality or vague in details
tend to be magnified. For this reason, management must be more strict about their tactics for managing these form of eWOM (Tsao & Hsieh, 2015).

**Evolution of eWOM.**

The Internet and development of network technology have taken traditional face-to-face WOM and transformed it to computer-mediated WOM, known as e-WOM communication. The Internet now allows consumers to share experiences and opinions (K. T. Lee & Koo, 2012), thus resulting in expanded options for potential consumers to gather unbiased information from consumers with consumption-related advice (Hennig-Thurau et al., 2004). This new technological medium allows for a faster spread of information sharing (Yang, 2013). Based on the literature research, Table 1 shows the differences between WOM and eWOM. eWOM is generally a written message, whereas in WOM it is delivered orally (Rosen, 2009). eWOM also is not typically direct, as a consumer will publish a message on the Internet without addressing a specific individual (Minazzi, 2015, p. 23). Once an individual publishes information online, it does not vanish easily and it is asynchronous, as the interaction between the consumer and the business does not happen in real time; it can take time for the business to respond (C. M. K. Cheung & Lee, 2012). However, the message that is published remains long after any interaction occurs, allowing other individuals to read it well after its original publication and thus extending its impact on potential consumers (Breazeale, 2009; Buttle, 1998; Hennig-Thurau et al., 2004). The continued availability of the message long after being posted allows for measurability (C. M. K. Cheung & Lee, 2012; C. M. K. Cheung & Thandani, 2010), which for WOM is not possible. In the traditional role of WOM, individuals might go to smaller groups of people or friends and family for information they are seeking. With eWOM, they can turn to millions of people (mostly strangers) to obtain information (Bickart & Schindler, 2001;
Chatterjee, 2001; Xia & Bechwati, 2008). Due to the low cost needed to access and share information, eWOM has the potential to reach millions of people. With its high accessibility, it will exist for a longer period of time and can be easily found by persons with similar interests, thus resulting in greater exposure (Dellarocas, 2003; Jeong & Jang, 2011; Litvin et al., 2008). The ease of access to the open space of the Internet has the potential to change the way that consumers seek and obtain information, a development that will change the structure of traveling information and the perception of traveling products (Litvin et al., 2008).

Table 1. Differences between WOM and eWOM

<table>
<thead>
<tr>
<th></th>
<th>WOM</th>
<th>eWOM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nature of the message</td>
<td>Mainly oral / private</td>
<td>Written / public</td>
</tr>
<tr>
<td>Form of the message</td>
<td>Direct</td>
<td>Indirect</td>
</tr>
<tr>
<td>Persistence</td>
<td>Lower persistence</td>
<td>Higher persistence</td>
</tr>
<tr>
<td>Synchronism</td>
<td>Synchronous</td>
<td>Asynchronous</td>
</tr>
<tr>
<td>Accessibility / speed of diffusion</td>
<td>Low / low</td>
<td>High / high</td>
</tr>
<tr>
<td>Credibility</td>
<td>Known source of information</td>
<td>Unknown source of information</td>
</tr>
<tr>
<td>Author Expertise</td>
<td>High / Known</td>
<td>Low / unknown</td>
</tr>
<tr>
<td>Cost</td>
<td>High</td>
<td>Low</td>
</tr>
<tr>
<td>Measurable / controllable</td>
<td>No / no</td>
<td>Yes / yes</td>
</tr>
</tbody>
</table>

*Note.* Based on the table design of Minazzi (2015, p. 23).


A challenge to address is the anonymity of communicators, which has the potential to produce intentionally misleading and out of context messages (Dellarocas, 2003; Litvin et al., 2008). A unique characteristic of this form of communication is that the parties involved
typically have little to no previous relationship with one another, so they do not necessarily know who wrote the review they are reading. This sense of anonymity affords the writer greater freedom to describe their experience, without having to reveal their identity (Goldsmith & Horowitz, 2006; K. T. Lee & Koo, 2012), resulting in an increase in the reviews now written (Chatterjee, 2001; K. T. Lee & Koo, 2012). The credibility of eWOM can be called into question based on this anonymity, whereas traditional WOM methods can be perceived as more credible, since body language and voice intonation assist in reinforcing the message (Jeong & Jang, 2011). TripAdvisor has encountered several lawsuits regarding the authenticity of the posted reviews (Campbell, Piercy, & Heinrich, 2012; Dohse, 2013; Feinblatt, Rose, & Coleman, 2011; Mayzlin, Dover, & Chevalier, 2012; Zamani, Kasimati, & Giaglis, 2012). Recently, the online review website Yelp was court-ordered to surrender the identification of users on their website (Vivion, 2014), proving that there is indeed a difference between anonymity and freedom of speech rights.

Motivation is another factor to consider when understanding the intent behind providing a message in the eWOM format. One aspect to motivation can be the assistance provided through a problem-solving supportive nature and the sense of contributing to online community engagement (Labsomboonsiri, Mathews, & Luck, 2014; Wang & Fesenmaier, 2004a, 2004b). The Labsomboonsiri et al. (2014) study supported problem-solving as an extrinsic motivation by members, since it leads to both enjoyment and social bonding within the community with which they are involved. This study also found that social bonding was a higher generator of problem-solving emotional support than the actual information exchange. While individuals can gain emotional support from a diverse group of people (Wright, 2000), they are more apt to obtain that emotional support from people with whom they relate better, as they have similar
characteristics and life experiences (Wellman & Wortley, 1990). The aspect of an online community can be found to be more supportive than even friends or family: community members might have more knowledge of a particular area of consumption interest, whereas family and friends could be less supportive because their knowledge in the area is lacking (Labsomboonsiri et al., 2014). In order to obtain the extrinsic motivation sought by finding problem-solving support, they are in turn trying to solve their intrinsic motivation by being able to relax and reduce tension. The function of an online community to share eWOM can indeed provide problem-solving support, thus reducing stress and allowing other community members to relax (Savolainen, 2010). The findings of Labsomboonsiri et al. (2014) demonstrate the effect of relaxation as a motivation in eWOM behavior, as there is a significantly higher level of enjoyment than there is social bonding experience.

eWOM is considered an open market for sharing information. The desire for people to share in an open market has a positive effect on eWOM activities, because people are willing to openly share and give information to others, with the goal of offering information that is considered valuable (S. H. Lee, Noh, & Kim, 2013). The ability to express their identities and create self-presentation in an open market has a positive effect on increasing eWOM (S. H. Lee et al., 2013). Moreover, the ability for an individual to receive a reward, such as points or mileage, for posting their experience in an open market is a motivator (S. H. Lee et al., 2013). Businesses offer such perks because they seek to expand the loyalty a customer has with the company; which in turn tends to drive positive eWOM (Bloemer, Ruyter, & Peeters, 1998). Loyalty has been used as a tool to measure the success of various marketing strategies (Knox & Walker, 2001), including eWOM, which can be tracked and measured (S. H. Lee et al., 2013). When eWOM is positive in the communication stream, the intention to recommend will rise
once the satisfaction of the customer has converted into commitment to the provider; commitment leads to cooperative behaviors with marketers as they develop a relationship (Purnasari et al., 2015).

As businesses have started to embrace technology, they have also had to implement a structure for managing the eWOM presence that exists. This is a two-fold process, both informational and revenue-generating (Litvin et al., 2008). The informational process is the systematic approach to how the management team will embrace discussion and interact with feedback, while the revenue-generating process seeks to solicit positive eWOM so that new potential customers will read it and make purchase decisions based on it (Litvin et al., 2008).

While any form of feedback is considered important, online consumer feedback in the form of eWOM, with its widespread reach, has the potential to have more of an impact on a hotel (Torres, Adler, Behnke, Miao, & Lehto, 2015; Trusov, Bucklin, & Pauwels, 2009). Management should therefore encourage guests to share their feedback in any form—however, in the eWOM format, management must also spend the necessary time to make adjustments to their service strategy and respond to the information collected (Dinnen & Hassanien, 2011; Torres, Adler, et al., 2015). Yu, Carlsson, and Zou (2014) found that the intention behind WOM is most influenced by interestingness, credibility, and the social media engagement (comments and retweets). The results on credibility contrasts with findings from the study of Ayeha, Au, and Law (2013), where they concluded that credibility is the primary concern of a consumers instead of interestingness (Yu et al., 2014).

**Financial impact.**

The financial performance of a business can be impacted by the valence (positive or negative) of a message and the volume of reviews posted (Chevalier & Mayzlin, 2006;
Dellarocas, 2003, 2006; Dellarocas, Zhang, & Awad, 2007; Forman, Ghose, & Wiesenfeld, 2008; Godes & Mayzlin, 2004; X. Luo, 2008; Villanueva, Yoo, & Hanssens, 2008). Studies have demonstrated that high volume eWOM always benefits sales, and product sales can strongly be influenced by the volume of forum discussions, thus a form of awareness (Basuroy, Chatterjee, & Ravid, 2003; Chevalier & Mayzlin, 2006; Cho & Chan, 2016; Khare, Labrecque, & Asare, 2011; Y. Liu, 2006). The preferences of eWOM seekers will be impacted positively by positive posts, whereby negative posts can harm and reduce purchases (Basuroy et al., 2003; Chevalier & Mayzlin, 2006; Cho & Chan, 2016; Duan et al., 2008; J.-H. Huang & Chen, 2006). Hu, Koh, and Reddy (2014) found that ratings affected the sales in an indirect way, but the sentiments directly impacted sales. In the study conducted by Cho and Chan (2016), the researchers found that value for money was the influential factor on consumer intention. Various studies have confirmed that the number of reviews available can serve as predictor of the performance of a hotel (W. G. Kim, Li, & Brymer, 2016; W. G. Kim, Lim, & Brymer, 2015; Ye, Law, & Gu, 2009).

**Internet**

Since the inception of the Internet and the rapid expansion of online travel-related services, there has been a change in the way in which people search for information about hospitality-related services (Mattilla, 2001). Travelers can be influenced in a variety of ways based on search activities, through product knowledge, expertise, or familiarity (Gursoy, 2003). There is the potential that the use of the Internet in expressions of favorable eWOM could set the stage for sharing and providing pleasurable guest experiences (Mattilla, 2001). Negative word-of-mouth (WOM) is considered a complaining behavior, which should be expected to increase if consumers have a dissatisfying experience (Szymanski & Henard, 2001). The chance for
customers to inform other potential customers of a negative experience could also be the motivation to share that experience (Nyer, 1999). Most complaints can be deemed non-instrumental in nature, especially negative WOM—such reviews can be caused by a variety of factors, including the desire for emotional release to regain some control over a distressing situation or the drive to gain sympathy (Nyer, 1999). The Internet is able to provide ample avenues for consumers to publicly share their views, preferences, and experiences with others, as well as provide opportunities for hotels to take advantage of eWOM marketing via various social media platforms (Radojevic et al., 2015b; Trusov et al., 2009). The use of social media sites on the Internet makes the concept behind WOM a potentially viral experience, and online social networking sites like Facebook, Twitter, and LinkedIn will continue to serve as a trend and a medium for customer engagement (Lee & Goldblatt, 2012). Dependence upon these and similar advances in technology will only increase as creative ideas are sought to reduce a company’s financial exposure (Lee & Goldblatt, 2012). Social networks are now considered a widely accepted channel for effective marketing, as they will increase profit margins (Lee & Goldblatt, 2012). It is therefore critical that an organization manage its reputation and consumer engagement by responding positively on public websites.

Social Media

Sources like (Kaplan & Haenlein, 2010; Leung et al., 2013; Xiang & Gretzel, 2010) define social media as a group of Internet-based applications that exist on the Web 2.0 platform and enable Internet users from all over the world to interact, communicate, and share ideas, thoughts, experiences, information, and relationships (Radwan & Radwan, 2016). A mega trend in recent years, social media has been adopted by travelers to search, organize, share, and annotate their stories and experiences through blogs and microblogs (Blogger and Twitter),
online communities (Facebook, RenRen, and TripAdvisor), media-sharing sites (Flickr and YouTube), social booking sites (Delicious), social knowledge sharing sites (Wikitravel), and other collaborative ways (Leung et al., 2013).

Social media is considered to be the second generation of web development and design that aims to facilitate communication, secure information sharing, and collaboration on the world wide web (Paris, Lee, & Seery, 2010; Yang, 2013). The impressive ability to encourage various aspects of communication via social media can be done for intra-organizational and inter-organizational activities among peers, customers, business partners, and organizations (Mangold & Faulds, 2009; Porter & Donthu, 2008); through the creation of knowledge-sharing communities (Fernando, 2010; Kasavana et al., 2010; Yates & Paquette, 2011); by the development of marketing strategies to strengthen brand management (S. A. Jin, 2012; Laroche, Habibi, & Richard, 2013); and through collaborative learning and creativity (Ngai, Tao, & Moon, 2015; Peppler & Solomou, 2011). One of the more recent tools introduced have been Recommender Systems, which help people by retrieving information that matches their preferences, and then recommending products or services (Colace, De Santo, Greco, Moscato, & Picariello, 2015).

Social media outlets have continued to increase over the past few years and are not expected to dissipate. O’Connor (2010) notes that this medium of peer-to-peer information sharing is a trend that will continue well into the future. Ribeiro, Amaro, Seabra, and Abrantes (2014) also highlighted the staggering growth of social media—from a usage rate of 8% of adults online in 2005 to 73% in 2013, per the Pew Internet Project research (Duggan & Smith, 2013). By 2014, 52% of all online adults were using two or more social media sites (Duggan, Ellison, Lampe, Lenhart, & Madden, 2015). While Facebook was still the top site in 2014, other
platforms—particularly Pinterest and Instagram—were increasing (Duggan et al., 2015). In 2015, the use of adult social media channels rose to 65% as a result of a more mobile-oriented society (GaoLeave, 2015; Perrin, 2015).

Hotels can be greatly impacted by the use of social media, as it can be used to boost their online presence, attract and maintain clients, and publicize hotel activities and offers (Cox, Burgess, Sellitto, & Buultjens, 2009). The bookings of hotels are increasingly becoming affected by the various forms of social media and the reviews provided on these sites (Radwan & Radwan, 2016). Social media channels provide an opportunity for hospitality firms to listen and communicate with customers via feedback, discussion, voting, comments and sharing (Noone, McGuire, & Rohlf, 2011; Radwan & Radwan, 2016).

There are different ways in which these tools can be used by hoteliers to measure the effectiveness of a social media marketing plan: tracking the number of fans or followers on Facebook and Twitter pages; tallying the number of customers’ comments and responses on hotel web pages, as they show customer engagement; measuring the rate of return on investment (ROI); and distributing a questionnaire to guests during check-in to understand how the customer found out about their hotel (Assenov & Khurana, 2012). Tallying the number of actual bookings made using the channels is an acceptable metric (Noone et al., 2011); while the human interaction makes measurement more complex than traditional platforms (Pradiptarini, 2011). The public view of user-generated comments can have a major impact a hospitality operation in both negative and positive ways. Therefore, it is critical that hotel operators understand what it takes to satisfy their guests.
Social media marketing.

Social media marketing (SMM) can be defined as the processes that empower individuals to promote their websites, products, or services through the various social channels, so they can communicate with and tap into a more significant community that might not be available through the traditional advertising channels (Hall, 2012; Weinberg, 2009). SMM consists of techniques that will reinforce and increase brand awareness amongst consumers, based on the increased amount of time consumers spend on social networks (Nisar & Whitehead, 2016). The development and advancement of social media has allowed brands to discover exactly what interests a consumer and use this information to tailor their products and services to meet those specific needs (A. Chen, Lu, Wang, Zhao, & Li, 2013; Y. H. Choi & Bazarova, 2015; Nisar & Whitehead, 2016). Regardless of the size of the business, marketing costs toward social media channels are an efficient use of finances (Krasnova, Spiekermann, Koroleva, & Hildebrand, 2010; Nisar & Whitehead, 2016; Tutel, 2008). In a study completed by IBM, people were found to use social media 23% of the time to interact with brands (Baird & Parasnis, 2011). As this number is expected to continue to rise over the next several years, it is even more important for brands to develop a solid social media strategy. Consumers will continue to turn to social media channels to assist in their purchase decision process and obtain recommendations from their friends, family, and other trusted sources (A. Chen et al., 2013; Y. H. Choi & Bazarova, 2015; Nisar & Whitehead, 2016). SMM has started to imply that the consumers are becoming the products themselves as well as the consumers of the content (Radwan & Radwan, 2016). This evolution creates a new type of consumer know as a “prosumer” (Hearn, Foth, & Gray, 2009). In order for a brand to impose their product choice on consumers, they must interact and engage in the dialogue (Y. H. Choi & Bazarova, 2015; Nisar & Whitehead, 2016).
Perhaps one of the most effective marketing techniques and generators of dialogue is viral marketing, which can be defined as communication in an oral person-to-person format between a perceived non-commercial communicator and a receiver concerning a brand, a product, or a service offered for sale (Grieve, Indian, Witteveen, Tolan, & Marrington, 2013; Stokes & Wilson, 2006, p. 365). Larger companies are taking viral marketing a step further by creating the concept of viral sharing, whereby they offer rewards in the form of cash, discounts, and/or offers to consumers for sharing information for (Dholakia, Bagozzi, & Pearo, 2004; Kaplan & Haenlein, 2011; Nisar & Whitehead, 2016). Marketing strategies have expanded with the emergence of social media by allowing brands the opportunity to listen to and engage with their own customers, and encourage them to become life-long advocates of their products (Malthouse, Haenlein, Skiera, Wege, & Zhang, 2013; Nisar & Whitehead, 2016).

SMM can be more effective than traditional marketing because it offers the greater levels of consumer engagement traditionally associated with the alternative forms of web-based media (Acar & Polonsky, 2007). While traditional marketing tools will not be replaced by social media, a marketing strategy can be enhanced with the new propositional tools (Ramsaran-Fowdar & Fowdar, 2013). The research of Momtaz, Aghaie, and Alizadeh (2011) identified a three-step process for businesses to employ a social marketing strategy: first, to find a proper social network and establish a customer relationship; second, to identify the opinion leaders among the customers, who will be the most influential individuals; and finally, to get these opinion leaders to share links for the products and services to increase the adoption rate of information and advertise on behalf of the business. Opinion leaders are key to spreading product information and providing recommendations, personal comments, and professional knowledge about the product (F. Li & Du, 2011). These leaders have a vast ability to influence
the beliefs, behaviors, and values of consumers with their large reach through blogs or other social networks (Acar & Polonsky, 2007; Radwan & Radwan, 2016).

**Social media platforms.**

There are many types of networks that constitute social media. For purposes of this paper, these platforms include Online Social Networks (OSN), commercial review sites, specific supplier traveling sites, and content and virtual communities (Gligorijevic, 2016; Xiang & Gretzel, 2010, p. 218). These platforms have been categorized for the tourism industry by other authors to include blogs and micro-blogs (Blogger, Twitter, Traveling Blog), social networking sites (Facebook, Linkedin), collaborative projects (Wikipedia), content community sites (YouTube, Flickr), and websites designed for product reviews (Gligorijevic, 2016, p. 219; Sotiriadis & Zyl, 2013). These review platform websites allow a business to offer and promote their services, as well as provide immediate information to those seeking advice or help (Gligorijevic, 2016, p. 218; Gligorijevic & Luck, 2012). Travel- and hospitality-based review platforms offer a form of collaboration and sense of community for the users, and are considered an untapped special niche market for a business which offers a customer base of prospective buyers (Gligorijevic, 2016, p. 218). The stimulated demand of guests can push hotels to provide the opportunity to decrease their distribution costs by providing a direct link to the hotel’s website or direct access to their booking engine (Radwan & Radwan, 2016). Direct booking access is what hoteliers ultimately seek, instead of allowing fans and friends to book on third-party websites (Radwan & Radwan, 2016).

**Online social networks.**

An online social network (OSN) is a pre-established network of friends and acquaintances that can be an audience for hospitality-related information. Social networking
sites (SNS), which are considered platforms with dynamic features where users can share, post, and discuss interests with other users (Jansen, Zhang, Sobel, & Chowdury, 2009; Q. Luo & Zhong, 2015), also belong in this category. Examples of SNSs are web-based applications, which include websites such as Facebook and MySpace (Radwan & Radwan, 2016). Users of these websites can create their profile, develop a list of users with whom they share a connection, and view their list of connections and who they are connected to within the platform (Boyd & Ellison, 2007). Consumers of social networks create over 256 billion impressions on one another annually by the use of reviews, posts, blogs, and live messages (Linnes, Kowalski, Lema, Lam, & Agrusa, 2014). Hospitality companies are becoming involved on Facebook by hosting fan pages for their businesses (Kwok & Yu, 2012). The features available on these sites allow for users to expand their social circles and increase their volume of interpersonal contact (Q. Luo & Zhong, 2015). Users of these sites, unlike on other sites, have a tendency to form close-knit relationships with each other (Q. Luo & Zhong, 2015). These sites offer users an ability to take immediate advantage of the recommendation tools and leverage them in different ways to enhance the user experience within the community by suggesting objects of interest (Colace et al., 2015). These sites have literally changed the way information is delivered to customer, moving from traditional one-to-many to a more one-to-one level of communication (Radwan & Radwan, 2016).

**Facebook.**

One of the most widely used social media channels is the website Facebook. It became available to members of the public in 2009 as a leading social networking site, serving as a source of consumer information and a means to spread information in order to build a marketing presence (Y.-L. Hsu, 2012). Facebook attracts both business and personal users, a diversity that
can allow a hotel to create a network on the site (Y.-L. Hsu, 2012). The opportunities for use include viral marketing, business development, lead generation, outward communication, complaint management, positive feedback publication, and recommendation testimonials (Y.-L. Hsu, 2012). A user can more easily follow a company’s business page by examining its wall on Facebook in order to see positive and negative comments about the operation. However, compared to the ease in user access, a similar but more trusted type of third-party information can be found on the online review website TripAdvisor. From a business perspective, Facebook provides several tools for marketing objectives, including profiles, groups, business/fan pages, sharing events, social ads and polls, and messages (Ramsaran-Fowdar & Fowdar, 2013).

**Commercial review sites.**

The IBM classification of commercial websites is classified according to volume of traffic, which is based on criteria such as pages retrieved, number of transactions and their complexity, type and number of searches, information stability, and security concerns (Zviran, Glezer, & Avni, 2006). There are more than one hundred online portals worldwide that collect reviews for hotels (Fritsch & Sigmund, 2016). Examples in the United States include TripAdvisor, Yelp, Zagat, the former IgoUgo (Gligorijevic, 2016) Bookingbuddy, Cruisecritic, and Watchdog (C. Chen, Nguyen, Klaus, & Wu, 2015). Examples in other countries include the Switzerland-based HolidayCheck, Netherlands-based Zoover, and Russian-based TopHotels & Co (Fritsch & Sigmund, 2016). There are also numerous online hotel booking portals that integrate the reviews directly onto their website. TripAdvisor (www.tripadvisor.com) is considered to be the most successful of the Consumer Opinion Portals (COPs) and commercial review sites specializing in travel (Buhalis & Law, 2008; C. Chen et al., 2015; Filieri & McLeay, 2013; Markham-Bagnera, Schrier, & Arendt, 2015; Minazzi, 2015). TripAdvisor enables
tourists to design their travel experience by consulting reviews, rankings, and ratings of various 
traveling services, such as accommodations, attractions, and restaurants (Minazzi, 2015, p. 37).

For hotel operators, this website must become an integral part of daily operations. Websites like TripAdvisor and Zagat are successful solely because of the UGC that is established in the form of reviews and ratings. They offer a strong portfolio of marketing products for traveling for the purposes of vacation, leisure and business (Gligorijevic, 2016, p. 219).

**TripAdvisor.**

Third party user-generated reviews are very important to the hospitality industry, having recently gained acceptance and credibility by the online community. Hotels specifically expend great resources to maintain their brand reputations on these sites. One of the most influential websites for third-party, user-generated reviews of hospitality operations is TripAdvisor (C. Chen et al., 2015), which reviews and ranks over one million hotels (TripAdvisor, 2016). This website is a consumer-to-consumer driven, easily searchable community in which individuals share knowledge about travel services (Minazzi, 2015, p. 37). It was founded in February 2000 by CEO Steve Kaufer in Newton, MA (TripAdvisor, 2013).

Traffic statistics on TripAdvisor are staggering: between May 2012 and June 2013, the unique monthly visitors increased from 56 to 260 million; from June 2013 to March 2016 this number has increased to over 340 unique monthly visitors (TripAdvisor, 2012, 2013, 2014, 2016). During the same time, the registered marketable members went from 32 million in 2012 to 57 million in 2013; there are currently over 103 million marketable members (TripAdvisor, 2012, 2013, 2014, 2016). In 2013, the final integration of booking portals went live for all hotels on TripAdvisor. With this metasearch control, the hotelier can link directly to book the hotel after consumers have narrowed down their search (Fritsch & Sigmund, 2016).
Technology usage has increased in the hospitality industry, specifically the use of social Web 2.0 collaborative technologies (in which category TripAdvisor falls). As the online community has embraced the credibility behind third party user-generated reviews, their importance has become more pronounced in the lodging industry, which in turn has extended vast resources to maintain brand reputations on these sites. A hotel wants to make sure that the most positive reflection of its property is viewable for potential guests.

Jeacle and Carter (2011) reasoned that TripAdvisor serves as a leading forum for travelers, allowing them to share opinions and comments. According to Gretzel and Yoo (2008), users of Trip Advisor, find reviews written by other travelers’, to be more helpful than facts presented on company websites.

Information sharing in its current peer-to-peer form will continue as a trend into the future (O’Connor, 2010). The ease of Internet access through computers and mobile devices will continue to increase, as will the use of social media outlets and platforms like TripAdvisor. According to Brian Payea (2013), TripAdvisor is ranked the number one traveling destination website, followed by Booking.com and Expedia, meaning that it exerts perhaps the most influence on the way a hotel operates based on the credibility of its public, shared guest comments.

TripAdvisor is a third-party website, owned now by Expedia.com, and is a source of UGC, as well a rating and booking engine. The site attracts more than 200 million monthly visitors (Payea, 2013) across the 24 popular traveling branded websites (e.g. AirfareWatchdog, BookingBuddy, and VactionHomeRentals) (TripAdvisor, 2016). With this in mind, they qualify as the largest travel site in the world (HotelMarketing.com, 2012). The site provides over 350 million travel reviews and opinions (TripAdvisor, 2016), which has increased by 250 million
from the mere 100 million reviews available three years ago.

There are several features that make up the rankings on TripAdvisor, including the rating, the ranking, the volume, the certificate of excellence, the review reputation, the number of reviews in the same category, and the recommendation rating. The rating is a numerical score scaled on a range of one to five (five being the best score possible) and indicated in green bubbles. The rating is presented in two ways: by type of consumer and service quality. The type of consumer includes families, couples, solo or business. The service quality areas include location, sleep quality, room, service, value, and cleanliness; these will be the independent variables in the present study. The aggregate rating of a hotel reflects the average of the individual ratings (Minazzi, 2015, p. 38). The ranking, considered the popularity index, refers to the position of the hotel in the marketplace against its competitors. This comparison is done so in the same areas of quality, quantity, and recency on the website (Minazzi, 2015, p. 38). The volume is viewed as the number of reviews that have been published on the website. This number impacts the popularity of a hotel ranking (Minazzi, 2015, p. 38; Murphy, 2014; TripAdvisor Insights, 2016). A “Certificate of Excellence” is awarded to those hotels demonstrating high performance, which is reflected in a high rating and ranking level. The reviewer reputation is an indicator of the reviewers’ expertise. This ties back to the addition of “badges” for reviewers in 2012, based on the volume of feedback they have published, which classifies reviews with a visual representation of a star level status (Minazzi, 2015, p. 38). Keep in mind that when ‘recency’ is utilized on this website, it is referring to the date that the review was posted, not when the guest actually stayed. Based on the proprietary algorithm, a recent review will influence the popularity rankings more strongly, while an older review will have less impact on a hotel’s ranking over time (Minazzi, 2015, p. 38; TripAdvisor Insights, 2016).
Finally, the recommendation rating is considered the usefulness of the review contents expressed by other consumers. The question that TripAdvisor asks the reader upon completion of the review is, “Was this review helpful?” In turn, as readers agree, the number of people who viewed that message as helpful will be listed under the reviewer’s badge status score (Minazzi, 2015, p. 39). This lends more credibility to the particular reviewer.

The opportunity to share images from travel experiences was an additional feature started after the takeover by Expedia (Gligorijevic, 2016, p. 219). By far, the ability to add images has proven to be one of the more explosive additions: in 2012, TripAdvisor had only 11 million images available, but by 2013 the number increased to over 14 million user-submitted photos (TripAdvisor, 2013). Now in 2016, the site offers over 60 million candid travel photos (TripAdvisor, 2016). There are also over 6.5 million businesses listed on TripAdvisor, including destinations, hotels, attractions, restaurants, and vacation rentals (TripAdvisor, 2016). The increase in the volume of businesses is staggering, as in 2013, they only represented 2.5 million business (TripAdvisor, 2013), of which vacation rentals were not yet a component and restaurant reviews were just beginning.

TripAdvisor was founded in February 2000 by Steve Kaufer, the CEO (TripAdvisor, 2013), in local proximity to the author, in Newton, MA. Another key component to using this site is its global accessibility. TripAdvisor offers pages in 30 countries and in 21 languages (TripAdvisor, 2013). In addition, TripAdvisor holds a powerful place as a unique domain name in a Google searches related to travel information for nine US cities (Whitehead, 2011). The site holds a dominant place in the consumer online review area and is an excellent source for consumer travel research, especially with regards to the mindset of the reviewer (Xiang & Gretzel, 2010).
The business model of this website is its dependence upon UGC, which attracts a large number of visitors to its website—specifically, over 340 million unique monthly visitors (TripAdvisor, 2016). A generous revenue stream is generated from advertising and listing fees for other businesses (Gligorijevic, 2016, p. 220). Its purpose is to provide user reviews based on a first-hand experience that a guest encounters with a hotel or restaurant. Users have the ability to share a review about their experience at a specific property, so that other travelers have a chance to read that information and make informed decisions pertaining to their own travel plans. In March 2012, the site launched a new review collection solution and has partnered with Easytobook.com to shift the way that they collect reviews following guest stays. This helps potential customers make better-informed decisions based on the insights and ratings on TripAdvisor (Close-up, 2012).

In response to hoteliers’ concerns with the reviews posted on the website, TripAdvisor partnered with Market Metrix to create a customer satisfaction scoreboard (Barsky & Honeycutt, 2011). The resultant metric is the Customer Satisfaction Index (CSI), which creates a score on a scale of 0-100 from each review, based on the seven-question survey implemented by TripAdvisor (Barsky & Honeycutt, 2011). In general, consumers have a propensity to trust well-established review sites (Barsky & Honeycutt, 2011). Through the study completed by Barsky and Honeycutt (2011), it was determined that consumers view TripAdvisor as one of these more reliable sources for obtaining customer satisfaction information for any given hotel. According to Gretzel and Yoo (2008), users of TripAdvisor find that the reviews shared are more helpful in a booking decision than facts or ‘testimonials’ posted on a company website.

In order to post a review on TripAdvisor, a user must first become a member. Various identifiers are required to create an account in order to ensure the reviewer is a legitimate source
of customer feedback. The information about the reviewer has the potential to become publicly available on the website, as it is associated with the review. The information available includes age, gender, and location. There are additional features that can be included in a user profile, as well as the opportunity to share a profile picture. For privacy reasons, the reviewer can decide what information they want to make accessible for public consumption.

The reviewer has the opportunity to gain credibility toward their own personal status as they continue to write reviews and can eventually become eligible to earn a status associated with the volume of reviews they have written. A reviewer can earn what is identified as a “badge,” which shows their level of contribution and number of reviews posted (Gligorijevic, 2016, p. 220). The various badge statuses of a reviewer are identified as Reviewer (3-5), Senior Reviewer (6-10), Contributor (11-20), Senior Contributor (21-40) and Top Contributor (50+). If a user has between one and two reviews, they do not have a status. In addition to the colored star badge status, the posted comment would also identify how many hotels and cities the reviewer has completed. The more establishments reviewed, the more credible the reviewer’s image seems.

Each reviewer has the opportunity to rate various parts of their recent stay, with variables including sleep quality, service, value, location, rooms, and cleanliness. In the proprietary algorithm that TripAdvisor uses, quality of sleep is one of the three most important components to ranking a review (Payea, 2013). In addition, the other two critical components to the algorithm include recency of the post and volume of reviews (Payea, 2013). Otherwise, the website maintains a proprietary hold on their algorithm, taking the official position that to avoid gaming the system, they do not disclose any details about how properties are ranked (Baka, 2016; Payea, 2013). The availability of recent information is critical and consistent with findings
that the recency of a shared comment will affect its source credibility (Cho & Chan, 2016; Westerman, Spence, & Van Der Heide, 2014). The majority of consumers are restricted and have limited time, so they attempt to skip outdated information (Cho & Chan, 2016). With this in mind, consumers will rarely view online opinions beyond the first two web pages (Cho & Chan, 2016; Pavlou & Dimoka, 2006). Typically, even when a thread is interesting, consumer will read just enough to obtain ample information to diminish any of their worries and hesitation (Cho & Chan, 2016). When examining the details of the ratings of the review, the researcher is looking to see if the various reasons, or purpose of travel, will have an impact on the ratings that they select for the bubble variables. The ‘purpose of travel’ option includes family, couples, solo, or business.

Closely tied with credibility is the capacity for a potential booker to feel confident that they can trust the review. Accordingly, the indicators of trustworthiness include user interface, content, and quality of recommendation (Lenzini, van Houten, Huijsen, & Melenhorst, 2010). The comments on TripAdvisor provided by users consistently inform and influence individual purchase decisions (C. Chen et al., 2015; Gretzel, Kang, & Lee, 2008; Lu & Stepchenkova, 2012; Xiang & Gretzel, 2010). Some of the highlights for adoption of this website include (1) trust in the booking site; (2) availability of sufficient information from the site; (3) inability to find other reviews; (4) habit; and (5) lack of time (C. Chen et al., 2015).

From the standpoint of a hotelier, it is a huge advantage that the establishments reviewed on TripAdvisor are allowed to respond to their reviews and address specific issues in a public format visible for everyone to see (Gligorijevic, 2016, p. 220). Recommendations have been made for hoteliers in how best to respond in the format of a response to a review (Markham-
Bagnera et al., 2015). The dashboard tools provided by TripAdvisor make responded as a manager substantially easier then when the website began.

The content available on this website is free to access and to host the posted UGC reviews. In turn, this generates the necessary traffic for its commercial online advertising, bookings, and reservations (Gligorijevic, 2016, p. 220). This brilliant combination of UGC and advertising allows for the high demand of UGC to be viewed as an unbiased recommendation, yet the consumer on the website is exposed to UGC, which is specifically and accurately targeted toward future travelers (Gligorijevic, 2016, p. 220).

In addition to the reviews and booking engines that TripAdvisor provides, it also offers support for travelers through the availability of destination experts. Destination experts are volunteers—usually either local residents or frequent visitors—who assist members with inquiries, post content, provide travel-related advice and recommendations, and offer up-to-date information (Gligorijevic, 2016, p. 220).

Another collaborative move that TripAdvisor strategically designed was the partnership with Facebook, through which users of TripAdvisor are able to display their travel destinations for their friends to see (Gligorijevic, 2016, p. 220). The connection tool Social Graph, allows Facebook users to incorporate friends and their online recommendations into their own search experience. This allows for a personalized recommendation system that relies on the true nature of WOM among people who they already trust in their own circle of friends (Gligorijevic, 2016, p. 220; J. Lee, Park, & Han, 2011; Ugander, Karrer, Backstrom, & Marlow, 2011).

**Yelp.**

Yelp is an online review-based website, similar in nature to TripAdvisor. However, unlike TripAdvisor, Yelp provides reviews for a variety of businesses beyond those within the
hospitality industry (hotels and restaurants). Yelp, founded in 2004, merges traditional yellow pages content with social networking features into a consumer resource designed to “connect people with great local businesses” (“About us,” n.d.). In 2012, Yelp was acquired by the German review portal Qype (Fritsch & Sigmund, 2016). Yelp provides a space for community members to rate and review local businesses, services, and nonprofit organizations, from restaurants and gas stations to dentists and charities (Kuehn, 2013).

Zagat.

The business known as Zagat was created in 1979 with the intent to provide food connoisseurs with a guidebook for restaurants (Gligorijevic, 2016, p. 222). The concept was to take recommendations from patrons, edit them, and create a published summary. This was a new idea, as at the time, only reviews from actual experts were published (Gligorijevic, 2016, p. 222). Google purchased Zagat in 2008, and following that, the content was incorporated into the search engine listings in order to add more value (Barth, 2011; Gligorijevic, 2016, p. 222). This merger brought to Google more than just a comprehensive database of reviews and a community of users—it also enhanced the value behind Google’s Places, its business listing page (Hof, 2011). One of the unique features of Zagat, which contributed to holding a competitive advantage, was the large database of reviews created by peers, food connoisseurs, and patrons of fine dining establishments in the United States (Gligorijevic, 2016, p. 222).

Specific supplier travel sites.

Specific supplier travel sites include destination, hotel brand, and airline websites, where access is provided to share experiences specifically related to the specific product or service (Wilson et al., 2012). These sites are company-driven, so they are used for information and fact collection, rather than reliable experience sharing. Many of these sites link commercial reviews
to the brand page for credibility of online review sharing. Expedia, which was launched in 1996 by Microsoft (Fritsch & Sigmund, 2016), is one such example (C. Chen et al., 2015). In addition to owning TripAdvisor, Expedia also owns Hotels.com, Venere.com, and Egencia.com (Fritsch & Sigmund, 2016). Trivago, a company recently acquired by Expedia, Inc., specializes in the metasearch of hotels, providing the world’s largest price comparison website (Fritsch & Sigmund, 2016). Some of these websites, such as Booking and Hotels, feature reviews and ratings; however, they do not foster a community format as a core piece to their business (Gligorijevic, 2016, p. 219). Booking is a part of the U.S. Priceline Group, which owns the domain Priceline.com and is considered to be the worldwide market leader as a booking platform (Fritsch & Sigmund, 2016). Unlike TripAdvisor, Booking will send an email to the guest after they have stayed at a hotel so they can review it—through this model, they have acquired over 25 million reviews (Fritsch & Sigmund, 2016). Travelport, the Global Distribution System (GDS) provider of Galileo and Worldspan, owns Orbitz Worldwide, another a booking engine that integrates its own review system (Fritsch & Sigmund, 2016). One of the greatest challenges for a hotelier is the ability to closely monitor and optimize the listings that are found on third party review and booking portals. These portals are constantly changing their design and offering new opportunities, so staying on top of those changes is critical to a successful online campaign. By providing more enhanced information and well-positioned photographs on these sites, the greater chance a hotel has to maximize the potential of booking from a new guest.

**Content and virtual communities.**

Content communities (also called virtual communities) are graphic-related websites, such as YouTube, Picasa, Flickr, and Pinterest (Wilson et al., 2012). Content communities can also provide more text and commentary in media such as blogs hosted on sites like Blogspo)
(Gligorijevic, 2016, p. 218) and forums like Twitter (Wilson et al., 2012), LinkedIn (C. Chen et al., 2015), and IgoUgo, and Thorn Tree-Lonely Planet (Gligorijevic, 2016, p. 218). The website IgoUgo was formally shut down in early 2014; the parent company of that site incorporated the content from users into their other site, Travelocity (“IgoUgo Facebook business page,” 2013). IgoUgo and Thorn Tree are described as online forums that provide a very strong sense of community and in which the personal travel experience is the primary exchange of communication (Gligorijevic, 2016, p. 219). As a continued form of engagement, operations are selecting a particular format, e.g., videos on YouTube, images on Pinterest, and content on Twitter.

**Twitter.**

Twitter is considered to be the most popular micro-blogging site worldwide, ranking third among the most frequently visited sites after Facebook (Abbott, 2009). Twitter was founded in 2006 with the mission to give everyone the power to create and share ideas and information instantly (Twitter, 2014). Twitter can share information on both personal and business platforms in sound bites known as tweets. It serves as a platform for consumers to connect with a brand directly in short-form comments. Tweets can be transmitted rapidly on a large scale across the network (Jansen et al., 2009). This platform allows for hoteliers to listen to their customers and act immediately upon their comments (Radwan & Radwan, 2016). Twitter is popular due to its low cost of entry, simplicity of use, broadband availability, and increased number of users comfortable using the platform (Hay, 2010). From a marketing perspective, the instrument allows for four purposes: market research and feedback generation; publicity, branding, and reputation management; business networking; and customer service and customer relationship management (Thoring, 2011). Most hotels do not use this platform or do not use it effectively to
service their market (Hay, 2010); however, Fairmont Hotels and Four Seasons Resorts do a nice job.

**IgoUgo.**

The website known as IgoUgo was owned by Sabre Holdings Corporation for the duration of its active operation from 2000 to 2013 (Gligorijevic, 2016, p. 221; “IgoUgo Facebook business page,” 2013). This site started with the ability to offer consumer price comparison and direct booking services; however, it later developed into a strong community of users who offered personal travel stories (Gligorijevic, 2016, p. 221). Sabre Holdings Corporation also owns the website Travelocity, into which Sabre Holdings decided to focus their efforts as the key brand in their portfolio (Gligorijevic, 2016). Eventually, the content of IgoUgo was incorporated into the Travelocity site (“IgoUgo Facebook business page,” 2013).

**User-Generated Content (UGC)**

Websites like the ones referenced in this literature review often provide the opportunity to share user-generated content (UGC)—i.e., information provided by the users of the site, rather than the site developers. UGC is published online content, such as comments, text reviews profiles, and consumer produced photographs, that combines fact, opinion, impression, sentiment, tidbits, experiences and rumor (S. Burgess et al., 2009; Kaplan & Haenlein, 2010; A. N. Smith et al., 2012; Wilson et al., 2012). The various formats can include blogs, social networking sites, virtual social worlds, collaborative projects, content communities, and virtual game worlds (Gligorijevic, 2016; Kaplan & Haenlein, 2010, p. 219). The content can be either individually or collaboratively produced, modified, shared, and consumed—essentially, all of the ways in which individuals make use of social media (Kaplan & Haenlein, 2010; A. N. Smith et al., 2012). While UGC is related and similar in nature to eWOM, it is not identical, as UGC is
broader in nature and focuses more on brand-related content (A. N. Smith et al., 2012). UGC is
co-created and disseminated via various social media platforms. This content is considered a
crucial part of a business’s external communication with its customer base (Gligorijevic, 2016, p. 218).

UGC presents a number of legal and social challenges to the providers of that content,
especially as it relates to defamation, misrepresentation, and social embarrassment (S. Burgess et
al., 2009). Since the nature of hospitality-related experiences lends itself to intangibility, the
consumer must seek out others on platforms like UGC on the Internet for recommendation,
reviews, and advice (S. Burgess et al., 2009). The influence of these sites is a researcher’s
dream, as there are limited and sometimes conflicting views of how these sites impact
purchasing decisions. Online hotel reviews have the potential to provide a rich source of
information regarding the opinions of customers and their sentiments, and in fact, they are
quickly becoming the most popular trending tool for customer behavior research (H. Li et al.,
2012). Reviews are a critical source of consumer information, which can directly impact
purchase intentions (Dou et al., 2012).

Conversely, Cox, Burgess, Sellitto, and Buultjens (2009) suggest that potential guests are
more likely to examine UGC after they have selected the destination to which they will travel, as
they then try to decide what accommodations to select. Reviews posted by guests have the direct
ability to affect the rating and ranking of a business on TripAdvisor. According to Payea (2013),
the site’s algorithm is weighted in a variety of ways, with the three most important factors to a
review in determining the rank being the recency of the post, the quantity of reviews for the
operation, and the quality of sleep experience.
Images provided in the UGC format are considered to be less misleading than those provided by the provider (C. Chen et al., 2015). The results of the Chen et al. (2015) study identified that consumers find images displayed on provider sites misleading, e.g., by only showing the best rooms. A better sense of reality is displayed through UGC pictures and consumer snapshots, although sometimes these images are more crowded than anticipated (C. Chen et al., 2015).

Research on the subject of feedback is a more widely researched topic in the last few years. A study by Jin and Phua (2015) supported the premise that positive information does not affect consumer evaluation as significantly as does negative information. When consumers found negative information, they perceived the peer-reviewed product to be more unfavorable (Chiou, Lin, & Perng, 2010; S. V. Jin & Phua, 2015; Mizerski, 1982). UGC was considered to be more effective than system-aggregated UGC, and a greater level of satisfaction with the retailer was found when UGC was read versus a system-aggregated UGC (Chiou et al., 2010; S. V. Jin & Phua, 2015; Mizerski, 1982).

**Consumer-Generated media.**

UGC has also been referred to as consumer-generated content (CGC) and consumer-generated media (CGM). CGM is a more updated form of WOM that serves the informational needs of individuals by offering non-commercial, detailed, experiential, and up-to-date information with others outside of the immediate social circle (K. H. Yoo & Gretzel, 2011). A traditional handwritten journal is most closely associated with a blog as a form of CGM (K. H. Yoo & Gretzel, 2011). eWOM can be spread by customers in a variety of platforms, such as blogs, electronic bulletin board systems, forums, online communities, and review websites, in the form of CGM (Yang, 2013).
Travel reviews, which include structured product ratings and short descriptions directed toward others, are another form of CGM (O’Connor, 2010; Vermeulen & Seegers, 2009; K. H. Yoo & Gretzel, 2009, 2011). The photographs posted by other travelers in online reviews are found to be an extensively used tool for travel planning (K.-H. Yoo, Lee, Gretzel, & Fesenmaier, 2009). Readers of CGM tend to believe in the good intentions and honesty of the creators—a sense of trust fostered by the belief that the writer is knowledgeable about the content that they are posting (K.-H. Yoo et al., 2009).

Marketing-generated media (MGM) is the opposite in nature to UGC, as it rarely allows for an interaction with or between consumers (Gligorijevic, 2016, p. 218). Instead, consumers can use MGM websites to become better informed during the planning process for travel. The entertainment aspect of websites within this media is intended to drive traffic, based on its attractiveness of content, with the hope to drive higher sales (Gligorijevic, 2016, p. 218).

**Consumer opinion portal (COP).**

A consumer opinion portal (COP) is a term referenced by Burton and Khammash (2010) as a portal through which an online review is published and available for other potential travelers. The portal allows users to read and use the material to make informed decisions (Banyai, 2012). This will include the examples of websites such as TripAdvisor, Yelp, and Zagat, along with many other sites.

**Online reviews.**

Filieri and McLeay (2013) found that the travel industry considers an online review (OR) to be an electronic version of traditional WOM. An OR consists of comments published by travelers regarding their experiences with tourism products, services, and brands. Burton and
Khammash (2010) further defined OR as commentary on any aspect of a vacation, such as accommodation, restaurants, and destinations.

There are two roles that an OR will play in social influence: informant or recommender (Jalilvand, Esfahani, & Samiei, 2011; D. H. Park et al., 2007). An informant is an online consumer reviewer who delivers additional user-oriented information, while a recommender contributes to positive or negative product popularity (Jalilvand et al., 2011; D. H. Park et al., 2007). Further, there are also two types of reviews: consumer-generated reviews, which are based on personal experience, and professionally written reviews (D. H. Park et al., 2007; Z. Zhang et al., 2010). Considered in some fashion to be more credible, third-party product reviews are preferred over direct company produced information (Zhu & Zhang, 2010). Sales may not be well predicted from expert reviews (Reinstein & Synder, 2005) since the opinions of experts on experiential products have failed to reflect the tastes or preferences of the average consumer (Eliashberg & Shugan, 1997). Discrepancies were found in hotels with higher star levels or class designations in the study that O’Conner (2010) conducted, during which he compared online reviews with expert feedback. He did, however, find a strong relationship between the ratings provided by the experts with the opinions expressed in the reviews. There is concern that an expert reviewer, such as a New York Times critic or a Zagat rater, has the potential to be identified and singled out by the staff; then the reviewer is provided with superior service, far beyond what an average consumer would receive (Blank, 2006).

An online reviewer who posts an influx of reviews can obtain a prestigious online badge, as the more reviews a writer posts, the greater their badge status will grow. This higher-level badge status signals to readers that this reviewer is considered authorized, senior, and experienced (X. Liu, Schuckert, & Law, 2015). This fictitious world of badge ladders simply
recognizes the expert level status that they hold—there are no monetary rewards or compensation for the reviews provided (X. Liu et al., 2015; Mkono, 2012; K. H. Yoo & Gretzel, 2010).

*Positive and negative reviews.*

It is anticipated that comments will be written in one of two fashions, either positive or negative. A review will be based off an experience, which will be shared as a story. Further research has shown that a negative review with no management response has no more of an impact than a negative review with a management response (Black & Kelley, 2009). A positive review should provide recommendations for potential guests, as well as, a discussion about the features of the property. A negative review should instead identify a problem and provide suggestions on how to avoid the problem or the hotel altogether.

As a potential booker examines individual comments, they are inevitably seeking recommendations and suggestions as to whether or not they should stay at a particular property. A potential guest wants to know that they are making a wise decision based on the feedback provided by previous guests. One reason that online reviews have the potential to be so influential is that they are perceived to reduce risk and provide a more credible and trustworthy source of information (Bickart & Schindler, 2001). A larger volume of reviews could serve as a great influencer, as it will increase positively the quality of ratings (e.g. overall rating, location rating, and cleanliness rating) (K. L. Xie et al., 2014). Moreover, a larger quantity of reviews available for a property will make it seem more trustworthy (Zhu & Zhang, 2010). A consumer may not trust just one non-expert, but if there are nine out ten in agreement, then the element of risk is removed (Kirby, 2000). Reviewers themselves will be deemed more helpful and their review more useful when they disclose more information about themselves, including social
information, rather than coming across unidentifiable (Jarvenpaa & Leidner, 1998; Z. Liu & Park, 2015; Xia & Bechwati, 2008). Liu and Park (2015) found that positive reviews were perceived as more useful than negative or moderate reviews. A customer has a pre-decisional preference, so a positive review will add credibility to their decision, thus proving more useful (Z. Liu & Park, 2015; Russo, Meloy, & Medvec, 1998).

Impact of reviews.

The reputation of a brand has the ability to be positively or negatively impacted by the comments aired publicly by an online reviewer (B. A. Sparks & Browning, 2010). Various online feedback platforms have the potential to create a greater impact, than traditional WOM, due to the unprecedented scale and ability to measure and control customers’ reviews and provide personalized feedback (Dellarocas, 2003). Prior to the Internet’s ability to make sharing public, dissatisfied consumers could either do nothing, complain directly to line level employees or management, or vent their frustrations indirectly through a written letter (B. A. Sparks & Browning, 2010). There is an entire school of thought behind consumer complaint behavior (CCB), which has been triggered by an unsatisfactory experience (B. A. Sparks & Browning, 2010).

TripAdvisor serves as an online tool for people searching for and booking hotels; as they share reviews, there is a greater mass of opinions that can impact the decision-making process of a consumer (Sparks & Browning, 2010). This has major implications for potentially damaging information, as these reviews can remain publicly available on a permanent basis, thus impacting future booking decisions (B. A. Sparks & Browning, 2010). It is therefore critical for hotel management to understand the nature of their guests’ complaints so that they can improve upon their service and property service recovery methods. The next phase to this new understanding is
to be better informed, so as to be able to handle the management of this consumer-complaining forum (B. A. Sparks & Browning, 2010). The intangibility of service is a factor, as a consumer cannot ‘try before you buy,’ and therefore the perception of the experience is held in the ‘eye of the beholder’ (B. A. Sparks & Browning, 2010). Through the research of Sparks and Browning (2010), the most frequent complaints were determined to be about service delivery (e.g. a decline in service quality, rude service staff, and lack of provided service). It is suggested that there be a point of contact at the hotel property who is responsible for reading and responding to these online reviews. While there was a hard line of resistance by hoteliers when TripAdvisor first started, the site has made vast improvements and provided a variety of tools to hoteliers in order to make using the site easy, thus adopting UGC. Hotel managers must realize that the UGC found in online reviews can potentially serve as corrective mechanisms and offer a relatively inexpensive focus group; in the end, it gives rise to the opportunity for change and improvement (Baka, 2016).

The results from the Han, Mankad, Gavirneni, and Verma (2016) study indicate that there are three stakeholders impacted by online reviews: hotel customers, facility operators, and travel portals and social networks. Hotel customers should understand the impact that their review has on the business operations. Typically, ratings alone do not capture a guest’s actual experience, so it would be wise to read the actual commentary behind the review (Han et al., 2016). For a reviewer to be considered more helpful, they need to do the following: participate in large numbers, write reviews with high quality, ensure the topics are easily evident, and be explicit about their sentiments (Han et al., 2016).

Next, facility operators need to be active on all portals and have a management strategy in place to handle the feedback garnered. For a facility operator to be successful, it is
recommended that they do the following: pay special attention to the type of customer, identify the needs of each type of customer, encourage more guests to write reviews, act upon the negative feedback, and take advantage of the positive feedback as a useful marketing tool (Han et al., 2016). When a hotel is ranked well on a website like TripAdvisor—especially if the market size is small in the community that they operate in—they need to exploit this information in order to help increase their booking potential (Neirotti, Raguseo, & Paolucci, 2016). Finally, the travel portals and social networks should continue to ask consumers for reviews (although it would be more beneficial if the format was one conducive to easy analysis). Additionally, they will be more successful if they obtain more information from customers about their stay (e.g. travel purpose) and provide tools to determine if the review is considered superior (Han et al., 2016).

Torres, Singh, and Robertson-Ring (2015) demonstrated through their study that a hotel with an overall higher rating and a larger number of reviews has the potential to benefit from such customer feedback. A higher value per booking transaction will generate more revenue per customer, in turn producing a higher level of profitability (Torres, Singh, et al., 2015). Typically, when a hotel is not highly ranked, customers tend to view it as a hotel that does not offer a good value proposition; hence, the hotel might not see an advance in its booking potential. For a hotelier to be widely successful and increase its bookings, it needs to dedicate the resources to managing the valence and response to reviews (Ye et al., 2009; X. (Roy) Zhao, Wang, Guo, & Law, 2015).

*Review-related factors.*

There are now numerous companies that serve as third-party firms whose purpose is to review material shared across all of the platforms available to guests, such as Brand Karma,
ReviewPro, and TrustYou (United Nations World Tourism Organization (UNWTO) et al., 2016). While TripAdvisor provides a dashboard for the hoteliers to easily access and respond to reviews, these third-party businesses ensure that a hotel operator does not miss a review or other content shared by guests. Xie, Zhang, and Zhang (2014) summarize the research of the existence of three review-related factors: the valence of reviews (Chevalier & Mayzlin, 2006; Chintagunta, Gopinath, & Venkataraman, 2010; Clemons, Gao, & Hitt, 2006; Cui, Lui, & Guo, 2012; Dellarocas et al., 2007; Y. Liu, 2006; J. Sun, 2014; Tirunillai & Tellis, 2012; Wu, Wu, Sun, & Yang, 2013; Ye, Law, Gu, & Chen, 2011; Z. Zhang et al., 2010; Z. Zhang, Zhang, Wang, Law, & Li, 2013; Zhu & Zhang, 2010), the volume of reviews (Chevalier & Mayzlin, 2006; Chintagunta et al., 2010; Cui et al., 2012; Dellarocas et al., 2007; Duan et al., 2008; Y. Liu, 2006; Wu et al., 2013; Zhu & Zhang, 2010), and the variation of reviews (Chintagunta et al., 2010; Godes & Mayzlin, 2004; Markopoulos & Clemons, 2013; S.-B. Park & Park, 2013; M. Sun, 2011; Wu et al., 2013; Ye et al., 2011; Zhu & Zhang, 2010). Valence is most frequently presented by an average rating measure (K. L. Xie et al., 2014), as is done in this study. Typically, a statistical variation measures dispersion in the ratings, and the number of posted ratings is presented by volume (Y. J. Lee, 2012; K. L. Xie et al., 2014). The Tsao, Hsieh, Shih, and Lin (2015) study found that the influence of review valence on booking intention was strengthened as the number of reviews increased. If in these reviews negative components were a part of the commentary, repeated exposure could be damaging to the booking intention (Skowronski & Carlston, 1989; Tsao et al., 2015). The K.L. Xie et al. (2014) work has been the only study remotely close to this one, wherein hotel performance was examined using the dependent variable of RevPar; the independent variables in this study were consumer review factors (e.g. overall rating, attribute ratings, review variation, review volume, and the number of
management responses. The results of this study determined that the impact that the overall rating, ratings of location, and ratings of cleanliness had on hotel performance occurred at a higher level when the review variation was larger; in turn, at a lower level of review variation, performance was lower. Location and cleanliness are variables that, along with review variation, had an interaction effect on hotel performance. In general, the K.L. Xie et al (2014) study found cleanliness, location, and value to be the most influential on hotel performance; these three factors are examined in this paper.

*Fraudulent reviews.*

There is concern that anonymously posted reviews could be fake, posted either by hotels to drag down scores of their competitors, or by the hotel itself, to push the negative reviews further down a webpage so that they cannot easily be seen (O’Connor, 2010). One of the most important factors to consider when examining a review for legitimacy is the number of reviews that have been posted by the reviewer (Dellarocas, 2003; Minazzi, 2015). TripAdvisor, along with other review websites, has been criticized for the ease in access to publish fake feedback reviews. In reality, an individual can publish a review even if they have never stayed at the hotel (Feng, Xing, Gogar, & Choi, 2012; Mayzlin et al., 2012). There is no way to remove a review that has been posted on the TripAdvisor site unless there is change of ownership, change of brand, or a major documented renovation (Payea, 2013). A hotel is afforded the opportunity to provide a ‘right to reply’ where they can respond to the criticism (O’Connor, 2010). In order for hotels to be successful in managing their online reputation, they must regularly monitor and respond to such reviews.

While the fraud detection algorithm utilized by TripAdvisor is intended to detect fake reviews, the issue of manipulation has become a problem (Baka, 2016). Hotel operators
recognize that if they are ranked higher on TripAdvisor, there is potential to have better hotel performance revenue. Based on this assumption, attempts to manipulate the system have developed (Baka, 2016). As the increased level of authenticity arises, one concern is the incentives that consumers are provided to write fictitious positive reviews of a hotel and to write negative reviews about a competitor hotel (Feng et al., 2012; Mayzlin, Dover, & Chevalier, 2014). In a study on review authenticity, Quinby and Rauch (2012) found that most cheating takes the form of fake positive reviews. TripAdvisor hotel reviews were 98% more accurately reflective of the actual experience, and as a result, 95% of users would recommend TripAdvisor hotel reviews to other people (Quinby & Rauch, 2012; United Nations World Tourism Organization (UNWTO) et al., 2016). Some companies take part in a phenomenon called “astroturfing,” wherein they hide their identities by creating fake online profiles on consumer review sites, or they pay a freelance writer (Minazzi, 2015, p. 39). In accordance with the acceptable rules of use on TripAdvisor, guests can be encouraged to write reviews. Widgets can be downloaded from the Owners Center, which can be sent in a follow-up email, or cards can be distributed at the reception desk upon check-out (Baka, 2016; TripAdvisor Insights, 2014). Owners or agents of hotels are not allowed to write reviews of their competitors, even if they have actually stayed with them, to avoid any conflict of interest (Gössling, Hall, & Andersson, 2016). In a study completed by Banerjee and Chua (2014a), deceptive reviews were found to have a greater richness in positive cues, perceptual words, and use of future tense compared to genuine reviews (Banerjee & Chua, 2014b).

A consumer can easily overcome the inauthentic review bias by utilizing so-called qualified reviews that are available by most online travel agents (OTAs) (United Nations World Tourism Organization (UNWTO) et al., 2016). Typically, the OTA will only accept a review if
the guest has purchased a room stay through their website. Upon completion of the guest stay, an automatic email is generated inviting them to share feedback on their purchase or experience. Booking is considered to be the world’s largest OTA, with over 30 million qualified reviews (United Nations World Tourism Organization (UNWTO) et al., 2016). Another source is the website Expedia, which has over 20 million reviews between its two brand sites, Expedia.com and Hotels.com (United Nations World Tourism Organization (UNWTO) et al., 2016). As mentioned previously, TripAdvisor has over 350 million reviews as of February 2016 (“About TripAdvisor,” 2016)—however, the reviewer is not required to have stayed as a guest of the hotel (Mayzlin et al., 2012). The hope is that the sheer volume of reviews will allow a reader to weed out any potential fraudulent ones. TripAdvisor continuously upgrades the filters used to weed out suspected fake reviews and has identified a content integrity policy (“Content Integrity Policy - TripAdvisor,” 2016). Readability and writing style of reviews could offer telltale signs for a reader to discern between a genuine versus a deceptive review (Banerjee & Chua, 2014a, 2014b).

Trust

Another aspect considered important is the concept of trust. Trust is defined as the vulnerability of an individual to accept the actions of another individual, based on the expectation of performance (Mayer et al., 1995; Ratnasingam, 2012). Trust can refer to the willingness an individual has to rely on the exchange of information from a partner in whom one has confidence (Moorman, Deshpandé, & Zaltman, 1993). It indicates the development of confidence in a reliable information exchange partner, with whom another individual built a sense of reliability and integrity (Moorman et al., 1993; Morgan & Hunt, 1994; Purnasari et al., 2015). According to the research of Ratnasingam (2012) there are three dimensions of trust:
competence, predictability, and goodwill. The source of a message, which includes both the reviewer and the website, has been demonstrated to engender a greater perception of trustworthiness, thus being more influential than an expert (Ayeh, 2015; Ayeh et al., 2013). Trust has been found to have a positive impact on customer satisfaction (Purnasari et al., 2015).

In the travel sector, a significant predictor of trust is the degree of trustworthiness of the communicator (K. H. Yoo & Gretzel, 2009, 2011). In connecting trust back to the various platforms, peer networks (e.g. Facebook, LinkedIn, Twitter) have been found to be more influential than anonymous review websites (e.g. TripAdvisor, Yelp) (Minazzi, 2015; Tiwari, 2013)—another reason why TripAdvisor has connected the use of Facebook’s Social Graph to their website, to help integrate a stronger adoption of trust.

Online feedback mechanisms, or reputation systems, use the bidirectional communication capabilities of the Internet to artificially generate large-scale WOM networks where individuals can share opinions and experiences (Dellarocas, 2003; Resnick, Kuwabara, Zeckhauser, & Friedman, 2000). The ability for these sites to be trusted by their readers will be built through the transparency provided regarding the user identity (Cox et al., 2009). There are two main reasons a consumer will search for additional reviews: either a lack of trust or to gather additional information (C. Chen et al., 2015). Consumers find that bias exists on any given company’s website, since the intent is to sell its product or services. Because of this, consumers are more apt to trust the content of a third-party review (C. Chen et al., 2015). There seem to be mixed results from consumers as to whether they would prefer to read a review that simply provided facts, versus a review that provides a story. While the story could produce a sense of bias, the review seems more trustworthy if evidence of actually being a guest is provided in the commentary (C. Chen et al., 2015). The study conducted by Chen et al. (2015) found that a
review would be trusted more with these characteristics: the rating (the extreme ratings were read with greater scrutiny to detail); the total number of reviews; the type of personal information provided, including name, nationality, and length of stay; correct grammar and spelling; and the travel date. Consumers have been found to be happier with a business once they have filed a complaint and received a form of redress or response (Bolfing, 1989).

**Credibility.**

Credibility is the extent to which one perceives sources of information as unbiased, believable, true, or factual (K. T. Lee & Koo, 2012). A source is degraded when it is viewed to demonstrate a sense of bias in the review (K. T. Lee & Koo, 2012). When a source is deemed to be credible based on the viewpoint of the listener, the provided information can impact the future purchase decision (Baber et al., 2016). The perceptions of credible eWOM are influenced by various determinants (e.g. argument strength, recommendation framing, recommendation sidedness, source credibility, and confirmation with receiver’s prior belief) (M. Y. Cheung, Luo, Sia, & Chen, 2009; C. Park & Lee, 2009; W. Zhang & Watts, 2008) and normative cues (e.g. recommendation consistency, recommendation rating), which may supplement informational determinants (M. Y. Cheung et al., 2009; Minazzi, 2015, p. 36).

Four types of credibility have been proposed: presumed, reputed, surface, and experienced (Tham, Croy, & Mair, 2013; Tseng & Fogg, 1999). Presumed credibility is considered the description of a stance that an interpreter takes in believing the source and therefore considering trustworthy (Tham et al., 2013; Tseng & Fogg, 1999). Reputed credibility is based on third-party assertions, while surface credibility acknowledges that an individual will judge information based upon preliminary engagement encounters (Tham et al., 2013; Tseng &
Fogg, 1999). Finally, experience credibility explains the trust an individual has based on the direct experience with a product or service (Tham et al., 2013; Tseng & Fogg, 1999).

Taking the experience credibility a step further, the concept behind the ‘expert reviewer’ comes into consideration for the source to be well. Many platforms can show how many fans, friends, or followers an individual has, and as this number increases, the reviews published by this person tend to be perceived as more useful. When a reviewer has a large volume of followers, the individual becomes an opinion leader, trusted by readers and desired by businesses for fostering meaningful connections (Cheng & Ho, 2015).

Solicitation of reviews is an aspect of credibility that must be examined, as it is critical for a decision-maker to obtain additional information to reduce the perceived risk of travel decisions that could potentially ruin an experience (Kasavana et al., 2010; Tham et al., 2013). While this is true, the receiver of the information must also interpret it and decide if it is credible and useful to the decision-making process (Tham et al., 2013). In the world of eWOM, a receiver may opt to obtain or solicit additional information from their wider online pool of “friends” (M. Y. Cheung et al., 2009; Hung & Li, 2007; Tham et al., 2013). In order for marketers to be more successful, they must provide credible information on all channels, specifically on websites, blogs, and reviews, to control the content and in turn lead to a positive impact on the outcomes of communication (Baber et al., 2016).

The veracity of a message and its ability to be adopted is widely connected to the source credibility (Minazzi, 2015, p. 37), which is considered to be the reputation of the reviewer. This dovetails with the reputation behind the platform being used to display the published content (Brown, Broderick, & Lee, 2007). The anonymity provided by the Internet has allowed reviewers to be more truthful and honest about what information they are willing to share (T.
Sun et al., 2006), including more personal information and more forthcoming viewpoints (Roed, 2003). When comparing face-to-face communicators to online communicators, the individuals communicating online have a tendency to demonstrate fewer inhibitions, display less social anxiety, and exhibit less public self-awareness (T. Sun et al., 2006). To partially dispel the anonymity created by the review process, many third-party sites require an individual to provide personal identifying information (PII) (e.g. name, state of residence, gender, date of stay) (H. Xie et al., 2011). TripAdvisor has added badges to the reviewer identity to assist in building the credibility of the user. In order to increase the credibility of eWOM, three factors—homophily (or love of sameness), authority, and interestingness—can impact the source of trustworthiness.

**Homophily.**

Homophily is the tendency of individuals to associate and bond with persons similar to them (Brown et al., 2007; Shamhuyenhzva, van Tonder, Roberts-Lombard, & Hemsworth, 2016). People tend to connect with people who possess the same attributes and characteristics (Adams, 2012) and like to interact with individuals who have similar lives to their own, as they feel like they are more likely to share mutual interests and concerns (Reagans, 2005). Homophily can be further divided into two groups; homophily status and homophily value. Homophily status consists of the intrinsic characteristics that an individual possesses, such as ethnicity, age, and gender. It also includes acquired characteristics like religion, education, and employment (McPherson, Smith-Lovin, & Cook, 2001; Oroh, 2014). Homophily value is the personal internal state, such as personality, expectations, and attitudes (McPherson et al., 2001; Oroh, 2014). The predisposition of an individual will lend to a great interpersonal attraction, sense of trust, and understanding than would be found in a dissimilar individual (Carter, Ruef, & Aldrich, 2003). Hence, homophily is more likely to influence the process of persuasive eWOM
communication, as virtual communities are typically established by individuals with mutual interests (Chu & Kim, 2011; Shamhuyenhanzva et al., 2016).

Authority.

Authority is the reason for action driven by a desire for change in the consumers who believe in eWOM for the product or service (Enoch, 2014; Shamhuyenhanzva et al., 2016). While source authority can be related to source expertise, it depends upon the actual product or service. In addition, the reviewers’ comments or rating, identifying that they had first hand experience in the consumption of the experience (Martin & Lueg, 2013).

Interestingness.

Interestingness refers to the attention-grabbing aspect of information. Interestingness has the ability to draw in the attention of the WOM seekers and receivers (M. Huang, Cai, Tsang, & Zhou, 2011; Rieh, 2002; Shamhuyenhanzva et al., 2016). Promotional clutter and consumer-generated content can overwhelm an individual, so finding a way to make the message grab the attention of the reader is important (Leboff, 2011; Shamhuyenhanzva et al., 2016).

Source trustworthiness.

Source trustworthiness of a reviewer is based the way an audience perceives them as a recommender and can be shaped by presenting information that is of value in a direct manner (Hovland, Janis, & Kelley, 1953; Lis, 2013; Shamhuyenhanzva et al., 2016). The reviewer must convey that they have no alternative or ulterior motive for posting the message (Willemsen, Neijens, & Bronner, 2012). When a message is produced privately instead of by a company, and the reviewer has the ability to express that they themselves have experienced the service, they will be perceived as more trustworthy (Hautz, Füller, Hutter, & Thürridl, 2014; Shamhuyenhanzva et al., 2016).
Loyalty.

Customer loyalty conveys a deeply held commitment by a consumer to re-buy or re-patronize a preferred product or service consistently in the future, regardless of the situational influences and marketing efforts which could cause a switch in behavior (Reynoso, 2010). Similarly, it represents the commitment of a customer to do business with a particular organization, repeatedly purchasing their goods and services and recommending them to friends (McIlroy & Barnett, 2000). A company seeks to obtain a loyal customer who will hold a favorable attitude and display a commitment to repurchase the products or the services and recommend them to others, thus creating WOM advertising (Bowen & Chen, 2001). Loyalty is not just the behavior of a repurchase, but also the intention to share the purchase and positive attitudes regarding the brand with others (Story & Hess, 2006) while having an underlying motive to the behavior (Pitta, Franzak, & Fowler, 2006). When looking to strengthen the bonds of loyalty, effective service recovery strategies following a service breakdown are significant (E. Kim & Tang, In press). An individual’s intent to re-patronize a business based on emotions generated during the recovery has an impact on a customer’s WOM and social media intentions (E. Kim & Tang, In press). Satisfied guests tend to remain loyal to a hotel providing the service they would like (Alrousan & Abuamoud, 2013; Chitty, Ward, & Chua, 2007; Getty & Thompson, 1995). The long-term success of a hotel can be assured if they expand upon their loyal customer base (Wilkins, Merrilees, & Herington, 2009). When a hotel offers a high level of service quality, it leads to a higher level of customer satisfaction, which in turn leads to customer loyalty (Tefera & Govender, 2015). The satisfaction one feels for a brand can be a factor of loyalty (Sashi, 2012). However, this oversimplifies the relationship (Story & Hess, 2006), and it is important to realize that not every satisfied customer is loyal (Faullant, Matzler,
& Füller, 2008; Nisar & Whitehead, 2016; Tefera & Govender, 2015). There are some customers who are satisfied and exhibit some behaviors of loyalty, but when there is an offer from a competitor or a better alternative brand, they will easily switch (Nisar & Whitehead, 2016).

Tying this concept of loyalty back to trust, users are looking to develop a degree of confidence in the brand that sells the product or service; as such, trust is also a factor to creating loyalty (Nisar & Whitehead, 2016; Steinfield, Ellison, & Lampe, 2008; Valenzuela, Park, & Kee, 2009). A customer will be become committed or loyal to a brand by having trust, a sense of perceived value, and an emotional attachment. With this in mind, if a company helps the customer reduce the sense of perceived risk of loss, it will therefore engender trust (Nisar & Whitehead, 2016; Pitta et al., 2006). The Hampton Inn Hotels & Suites, a division of Hilton, offers a 100% guarantee on their service in an attempt to reduce the perceived risk a customer might have toward staying at the hotel and dealing with the intangibility of service.

**Purpose of This Study**

The purpose of this study was to determine and quantify the rating attributes on TripAdvisor that impact the financial performance of a hotel. The goal of this study will be accomplished through this objective:

1. To determine if the dependent variables can be explained by the independent variables.

**Research Question**

This study will build upon the previous research by demonstrating the impact that the independent variables—i.e., the TripAdvisor ranked attributes—have on the financial performance of a hotel in terms of ADR, Occupancy, and RevPar. As evidenced from the review
of literature on UGC and eWOM in the hospitality industry, there is a gap in the research regarding the effect of satisfaction attributes of guests on the financial performance of the hotel. Based on the purpose of study, the research question is as follows:

(1) To what extent can variation in the dependent variables (i.e. ADR, Occupancy, RevPar) be explained by the independent variables (i.e. cleanliness, location, room, service, staff, value, and overall)?

Chapter Summary

The objective of this chapter was to (a) examine the literature related to UGC and the impact that eWOM has on online reviews and (b) address the research question posed in this study. This research question is not only important in regard to addressing the gaps in the current literature, but also for assisting hotel managers in developing more effective strategies to address the impact that online reviews have on the financial performance of their hotels. Implementation of these strategy concepts can lead to greater financial performance for a hotel. The following chapter will discuss the methodology used in this study.
CHAPTER 3. METHODS

Introduction

The purpose of this study is to determine and quantify the factors that impact the financial performance of a hotel based on the ratings of TripAdvisor. This was accomplished by conducting research based on the following query:

(1) To what extent can variation in the dependent variables (i.e. ADR, Occupancy, RevPar) be explained by the independent variables (i.e. cleanliness, location, room, service, staff, value, and overall)?

The methodology used in this study to determine the significance of relationship is presented in this chapter. The second section discusses the source of the secondary data and its importance and relevance to the industry. The third section will address the collection of the secondary data and the steps taken to prepare it for analysis. Finally, the fourth section describes the statistical analysis technique used.

Method of Study

This study uses a quantitative approach to review the data. The quantitative methods include ANOVA and multiple regression. In addition to the statistical means of analysis, the industry-related financial ratios of ADR, RevPAR, and Occupancy will be analyzed.

Sample

This study utilized secondary data, which are those facts, statistics, etc. that have not been collected by the researcher but rather by third-party companies. They are collected with the purpose of supporting or exploring management activities, control functions, or research in various fields (M. L. Berger, Mamdani, & Johnson, 2009). Numerous research advocates have used secondary data for research and analysis (M. L. Berger et al., 2009; Cowton, 1998; Kiecolt
Cost reduction is one of the main advantages of this form of data, since it already exists without needing to expand further resources for the collection process (Cowton, 1998; Lazar et al., 2010). Reduction in collection time is another advantage—with the extant data, it is merely a matter of establishing a query and putting it into a format that is workable for the new study (Cowton, 1998).

There are of course disadvantages to using secondary data for research analysis. The researcher’s control over the data is limited since they are not the original or primary owner thereof. One way to compensate for this is to use data from validated and reliable sources, such as government agencies or, in this case, a well-established commercial firm like STR (Cowton, 1998; Lazar et al., 2010). In some cases, there can be a cost associated with obtaining data; in this particular case, partnerships with both companies, STR and TripAdvisor, afforded the researcher the opportunity to obtain the data free of charge. Timeliness can be another factor, since in some instances the data can be outdated by the time it is received (Cowton, 1998; Lazar et al., 2010). For this particular study, the query construction by the management at TripAdvisor took the longest amount of time to develop, arriving in excess of one year after the initial request. The secondary data was collected from third party sources including Smith Travel Research (STR) and TripAdvisor.

Smith Travel Research (STR).

STR is a company based in Nashville, Tennessee that obtains confidential data from participating hotels to generate reports based on competitive analysis. The data provided from STR is actually directly collected from each individual hotel property in an identified market, known as a competitive set. STR is considered the most valid and reliable providers of
accessible lodging industry performance metrics. Among other things, STR tracks lodging industry supply, demand, and performance data from properties in more than 160 countries. STR has worked hard to establish a strong relationship with the hotel industry, and lately, it has been working to develop a strong academic relationship with collegiate programs to integrate information into programs for graduate preparedness.

STR provided data for the hotel market in Boston for 14 years, dating from 2000 up through November 2014. This raw data required various hospitality calculations to be completed in order for the data to become useable. STR provided occupancy and revenue data for all of the hotels in the Boston, Massachusetts market, consisting of 76 hotels. This market included the entire range of star level statuses for the hotels, but the present study only focused on those hotels with two, three, or four levels in star status. The reduction in hotels based on star status allocated 55 hotels in the Boston market for analysis.

**TripAdvisor.**

Third-party user-generated reviews are very important to the hospitality industry, after having recently gained acceptance and credibility by the online community. Hotels specifically expend extensive resources to maintain brand reputation on these sites. One of the most influential websites for third-party, user-generated review of hospitality operations is TripAdvisor, which reviews and ranks over one million hotels (TripAdvisor, 2016). Jeacle and Carter (2011) noted that TripAdvisor serves as a leading forum for travelers, allowing them to share opinions and comments. According to Gretzel and Yoo (2008), users of TripAdvisor find reviews written by other travelers to be more helpful than facts presented on company websites.

In order to post a review on TripAdvisor, a user must first become a member. Various identifiers are required to create an account, in order to ensure the reviewer is a legitimate
individual. The information about the reviewer has the potential to become publicly available on the website, as it is associated with the review.

The reviewer has the opportunity to gain credibility as they continue to write reviews and is eligible to earn a badge status associated with the volume of reviews. The various statuses of a reviewer are identified as Reviewer (3-5), Senior Reviewer (6-10), Contributor (11-20), Senior Contributor (21-40) and Top Contributor (50+). If a user has between one and two reviews, they do not have a status.

TripAdvisor provided every review that was posted for all of the requested 55 hotels in the Boston market. The data commenced with the inception of the company in January 2000 through the time the file was transmitted in November 2014.

**Data Collection**

There was a tremendous amount of data collected from each of the third-party sources. TripAdvisor cross-referenced the hotels in the market with STR, and ultimately the individual properties were masked for confidentiality purposes. The star rating of the actual hotel was determined by a third party organization, Forbes Travel Guide (Bagdan, 2013), and was provided in the STR dataset. Each TripAdvisor reviewer has the opportunity to rate various parts of their recent stay in individual variables on scale of one to five. The variables include sleep quality, service, value, location, room, cleanliness, and overall experience. The data from TripAdvisor was provided in a Microsoft Excel spreadsheet. STR provided this spreadsheet of data, including the occupancy rate, total rooms, and revenue generated at each hotel in the marketplace. The document included a monthly breakdown of the data set between the years 2000 and 2014.

STR includes various markets for which it reports financial numbers on hotels. Therefore, it was best to use STR markets as the base to the study; the Boston market is one of
those locations. On TripAdvisor, there are 76 hotels ranked on the website for the Boston market. The number of hotels was reduced to 55 for several reasons (e.g. star ratings, lack of reviews, inconsistent data values). The first reduction in hotels occurred based on star rating.

The star rating of those hotels with two, three, four or five stars were identified. Since a one-star property is unreliable, as hotels in this category would not provide reliable data from this set, as they barely meet expectations and more often than not are considered a limited or budget style hotel, so these were excluded from the data set.

TripAdvisor provided data going back to the year 2000, its business inception point. Hotels that did not have enough reviews during the time of operation were removed from the study. The seven attributes (e.g. value, location, sleep, staff, room, cleanliness, and overall), were the consistent variables examined throughout all of the years of data provided. Two other variables, business center and check-in, were removed from the study, as they were questions asked and ranked during fewer years of the study, providing more inconsistent data to be analyzed.

**Research Method**

This study utilized a quantitative approach. The quantitative methods included descriptive statistics, ANOVA, and multiple regression. SPSS v.20 was the software program used to conduct the statistical analyses. Excel was used to calculate the hotel financial ratios from the raw data provided by STR.

**Data Analysis**

This study used three dependent variables, Average Daily Rate (ADR), occupancy percentage, and Revenue Per Available Room (RevPar). The dependent variables were calculated by the industry formulas from the raw data provided by STR. These three dependent
variables were analyzed against the seven independent variables, as identified from the reviews posted on TripAdvisor. As a reminder, those independent variables include value, location, sleep, staff, room, cleanliness and overall. To further examine the differences that exist in separate categories, the data was sorted and analyzed against six other categories. Those categories include:

1. American Automobile Association (AAA) diamond level status
2. Years (for each year the was data provided)
3. Price of the hotels
4. Market of the hotels
5. Size of hotels, by rooms
6. Operation type

Categories three through six were identified and determined by the data provided by STR. After completion of the conversion of raw data to the financial indicators, an average for each month, year, and hotel was calculated as the base point for the number for each variable analyzed. This study examined the short-term booking potential of the hotels in the Boston lodging market. The averages calculated for each month, along with the ratings from the TripAdvisor attributes, were then compared to the monthly revenue data provided by STR, in the month that the review was posted compared to the month the revenue was worked.

The concept of booking reservations in the short-term has increased over the last several years. There are even apps that provide last-minute discounts on room accommodations. One of the algorithm components to the TripAdvisor ranking strategy is the weighted value that ‘recency’ had on reviews. In this manner, it is appropriate to connect the revenue earned to the ratings posted in the same month.
Quantitative methodology.

There are numerous assumptions that must be reviewed from the data to ensure the study can proceed through the proposed methods. First is the independent assumption, which postulates that the sampled values are independent of each other. For this study, every review for each hotel was provided for every month of each year. Next, the 10% condition states that the sample size $n$ is not larger than 10% of the population. TripAdvisor (2016) advertises the fact that they have over 750 million reviews on the website. The success/failure condition is that the sample size is indeed large enough to have ten successes and ten failures. Finally, the equal variance assumption is required for ANOVA (analysis of variance).

As with any quantitative, analytical study, there exists the potential for various errors with the data, for which this study has already sought to account. First is a sampling error, which occurs because convenience sampling is not representative of the population. Undercoverage occurs when some portion of the population is not sampled at all or has a smaller representation in the sample than it has in the population (De Veaux, Velleman, & Bock, 2012). While this study examines all of the hotels in one market in the United States, it certainly is not a representation of the entire population.

Nonresponse bias is a source of bias for most surveys. Based on the data collected, this is not an issue, as the data was collected in chronological data order. While there are guests that stay at the hotel and do not write a review, which could serve as bias, the platform being used prevents this from becoming a major issue for the design and validity of the study. Conversely, response bias refers to anything in the survey design that influences the responses (De Veaux et al., 2012). Since this study uses secondary data, there is no chance that the data collected could influence the design.
Chapter Summary

This chapter discussed the methodology used in this study, including data collection and formula calculations. Chapter 3 also provided definitions for the variables and descriptions of the data analysis techniques used in this study. The following chapter will provide a detailed analysis of the results from the data obtained.
CHAPTER 4. RESULTS AND DISCUSSION

Introduction

The purpose of this chapter is to explain the analysis of the data and present the results of this study. The analysis breaks down into ten sections, the first of which provides an overview of the data collected. Second is a general summary of the reviews. A review of the years in this study is analyzed next, followed by the diamond level status of hotels. The next two sections cover the price category of hotels and then the market category of hotels. The analysis of hotel size follows these. The last section examines the operation type of hotel. Finally, this chapter presents the findings associated with the research question of this study and concludes with a brief chapter summary.

Data Analysis

Data was obtained from two different secondary sources. Smith Travel Research (STR) provided the raw data for each hotel in the study. TripAdvisor provided the quantitative results of guest rankings for each hotel in the study. In a double-blind process, the hotels were matched between the two data sources to ensure each hotel was correctly paired, yet remained anonymous. For purposes of this study, the hotels were then categorized into various segments used by STR for analysis, including year, price, market, operation, and size. In addition, the American Automobile Association (AAA) diamond rankings also categorized these hotels into the final third-party ranking status.

STR provided the data associated with obtaining an average daily rate (ADR), occupancy percentage, and RevPar (revenue per available room). In order to calculate these commonly used hospitality formulas, the raw data provided by STR was determined with the assistance of formulas written in an Excel spreadsheet. Data was provided from the year 2000 to 2014. The
total number of rooms per hotel was also provided. The raw data included the number of rooms occupied (supply) and the revenue earned every month in each year for each hotel. The formula was calculated by an average on a monthly basis per year. The formula for calculating ADR was determined by taking the total revenue earned and dividing it by the total number of rooms occupied (supply). Occupancy was determined by calculating the number of occupied rooms (supply) divided by the number of rooms in the hotel. Finally, RevPar was calculated by dividing the number of available rooms into the revenue earned. This final calculation, RevPar, is the most common way that hotels are able to compare themselves against each other.

The Excel file of data provided by TripAdvisor had 468,822 points of data within the previously described span of 14 years from 2000 to 2014. Those variables included cleanliness, location, overall, room, sleep, staff, value, business, and check-in. Two variables, business and check-in, were removed from this study, as they were not consistently addressed by travelers on the website.

After organizing the data, the information was imported into the SPSS v. 20 software package for further analysis. It was determined that there were too many empty cases of data between years 2000 to 2008, so the new set of cleaned data for this study commenced with January 2009 to November 2014. Therefore, the 5,832 data points (with an average score for every month in each year and for each hotel) were narrowed down to 3,933. For the purposes of this study, the dependent variables were ADR, occupancy, and RevPar. The independent variables were cleanliness, location, overall, room, sleep, staff, and value. The data was run with all independent variables against each of the three different dependent variables. It was further segmented for analysis by each year, various diamond levels, market, price, operation, and size. Within each of those segments, the analysis was individualized for each level of the segment.
That data was also analyzed by year to obtain an overall rating for individual years between January 2009 to November 2014. In each of these segments, both a multiple regression and analysis of variance (ANOVA) was completed. An R-squared value was calculated as well as the $F$ value. The statistical calculation provided the level of significance for each independent variable with a $p$ value, a beta ($\beta$) value, and a $t$ value. The default was 0.05 value.

**General summary.**

Generally, when examining the 55 hotels in the Boston area, the independent variable of value had the most impact, with a value for $p \leq 0.001$ on all three separate dependent variables of ADR (with a $\beta = -0.436$), occupancy (with a $\beta = -0.198$), and RevPar (with a $\beta = -0.437$), as seen in Table 2. There was no consistent variable with the second most important level of significance across all dependent variables. In order to make an impact on ADR, the independent variable with the most significance was overall experience, with a value of $p \leq 0.001$ and a $\beta = 0.198$. In order to look at an increase in occupancy, a hotel has to focus on the location, as a value of $p \leq 0.001$ and a $\beta = 0.077$ will have a positive relationship. Finally, in order for a hotel to see a positive increase in RevPar, the room has to be the focus for the guest experience, with a value of $p \leq 0.001$ and a $\beta = 0.144$.

**ANOVA analysis.**

The ADR, as seen in Table 2, had an R-squared value of 0.133 and a value for $F = 61.814$. Three variables—value, room, and overall—had the most impact on ADR with a value for $p \leq 0.001$. Value had a $\beta = -0.436$ and a value for $t = -14.948$. Room had a $\beta = 0.188$ and a value for $t = 5.237$. Finally, overall had a $\beta = 0.198$ and a value for $t = 3.922$. Beyond these three primary variables, staff provided a value for $p = 0.002$ with a $\beta = 0.106$. Both sleep and
location each had a value of $p = 0.015$. Sleep had a $\beta = 0.079$, while location had a $\beta = 0.052$. Cleanliness showed no impact on ADR.

Table 2. Standardized Coefficients of the Dependent Variables for All Hotels

<table>
<thead>
<tr>
<th></th>
<th>ADR</th>
<th></th>
<th></th>
<th>OCC</th>
<th></th>
<th></th>
<th>RevPar</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$\beta$</td>
<td>$t$</td>
<td>$p$</td>
<td>$\beta$</td>
<td>$t$</td>
<td>$p$</td>
<td>$\beta$</td>
<td>$t$</td>
<td>$p$</td>
</tr>
<tr>
<td>Cleanliness</td>
<td>.036</td>
<td>1.030</td>
<td>.303</td>
<td>.044</td>
<td>1.195</td>
<td>.232</td>
<td>.036</td>
<td>1.028</td>
<td>.304</td>
</tr>
<tr>
<td>Location</td>
<td>.052</td>
<td>2.427</td>
<td>.015</td>
<td>.077</td>
<td>3.441</td>
<td>.001</td>
<td>.078</td>
<td>3.603</td>
<td>.000</td>
</tr>
<tr>
<td>Room</td>
<td>.188</td>
<td>5.237</td>
<td>.000</td>
<td>-.014</td>
<td>-3.58</td>
<td>.721</td>
<td>.144</td>
<td>3.957</td>
<td>.000</td>
</tr>
<tr>
<td>Staff</td>
<td>.106</td>
<td>3.103</td>
<td>.002</td>
<td>.025</td>
<td>.682</td>
<td>.495</td>
<td>.101</td>
<td>2.895</td>
<td>.004</td>
</tr>
<tr>
<td>Value</td>
<td>-.436</td>
<td>-14.948</td>
<td>.000</td>
<td>-.198</td>
<td>-6.451</td>
<td>.000</td>
<td>-.437</td>
<td>-14.750</td>
<td>.000</td>
</tr>
<tr>
<td>Overall</td>
<td>.198</td>
<td>3.922</td>
<td>.000</td>
<td>-.068</td>
<td>-1.272</td>
<td>.204</td>
<td>.152</td>
<td>2.972</td>
<td>.003</td>
</tr>
<tr>
<td>$R^2$</td>
<td>.133</td>
<td></td>
<td></td>
<td>.033</td>
<td></td>
<td></td>
<td>.104</td>
<td></td>
<td></td>
</tr>
<tr>
<td>$F$</td>
<td>61.814</td>
<td></td>
<td></td>
<td>13.886</td>
<td></td>
<td></td>
<td>46.678</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: $n = 3,933$. 55 hotels were analyzed.

The occupancy, as displayed in Table 2, had an $R$-squared value of 0.330 and a value for $F = 12.886$. There were only two variables that had an impact on occupancy, both with a value for $p \leq 0.001$. Value had a $\beta = -0.198$ and a value for $t = -6.451$. Location, on the other hand, had a $\beta = 0.077$ and a value for $t = 3.441$. The overall, cleanliness, sleep, staff, and room variables had no significant impact on occupancy.

The RevPar, as identified in Table 2, has an $R$-squared value of 0.104 and a value for $F = 46.678$. Three variables provided the most extreme level of significance with a value for $p \leq 0.001$: value, room, and location. Value had a $\beta = -0.437$ and a value for $t = -14.750$. Room had
a $\beta = 0.144$ and a value for $t = 3.957$. Last in this level of importance was location, with a $\beta = 0.078$ and a value for $t = 3.603$. These were followed by overall, with a value for $p = 0.003$ and a $\beta = 0.152$. Next was staff, with a value for $p = 0.004$ and a $\beta = 0.101$. Finally, sleep provided a value for $p = 0.028$ and a $\beta = 0.072$. Cleanliness showed no impact on RevPar as well.

**Yearly analysis.**

Taking the general summary a step further, the data was analyzed by each year. The 3,933 data points broke down into the following years for analysis; 2010, 2011, 2012, 2013, and a portion for 2014. Even though 2009 was the first year of data analysis for the overall study, there were not enough data points available in this year to conduct a separate yearly analysis through SPSS. In almost all categories for each year, value was the most influential variable, with the exception of occupancy for years 2010 and 2011.

**Year 2010.**

There were 660 data points examined in this period of time. This included all 55 hotels over the course of 12 months for this year.

**ANOVA analysis.**

The ADR category had an $R^2$ value = 0.114 and an $F$ value = 7.534, as can be seen in Table 3. The variable with the most statistical significance was value, with a value for $p \leq 0.001$ and $\beta = -0.429$. The second variable was room, with a value for $p = 0.015$ and $\beta = 0.241$. The final variable in the ADR analysis with major significance was overall, with a value for $p = 0.048$ and $\beta = 0.242$. Staff, location, cleanliness, and sleep had no significance.

The occupancy category had an $R^2$ value of 0.052 and an $F$ value = 3.238, as seen in Table 3. Location, value, room, staff, cleanliness, overall, and sleep had no significant impact on occupancy for this year.
The RevPar category, found in Table 3, had an R-squared value of 0.088 and an \( F \) value = 5.673. Value was the only variable to have a statistically significant impact on RevPar, with value for \( p \leq 0.001 \) and \( \beta = -0.415 \). Overall, room, location, staff, cleanliness, and sleep had no statistically significant impact on RevPar for this year.

Table 3. Standardized Coefficients of the Dependent Variables for Year 2010

<table>
<thead>
<tr>
<th></th>
<th>ADR</th>
<th></th>
<th>OCC</th>
<th></th>
<th>RevPar</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Cleanliness</td>
<td>( \beta ) = -0.109</td>
<td>( t ) = -1.264</td>
<td>( p ) = .207</td>
<td>( \beta ) = -0.349</td>
<td>( t ) = .728</td>
<td>( p ) = .207</td>
</tr>
<tr>
<td>Location</td>
<td>( \beta ) = 0.053</td>
<td>( t ) = 0.921</td>
<td>( p ) = .358</td>
<td>( \beta ) = 1.820</td>
<td>( t ) = .069</td>
<td>( p ) = .080</td>
</tr>
<tr>
<td>Room</td>
<td>( \beta ) = 0.241</td>
<td>( t ) = 2.454</td>
<td>( p ) = .015</td>
<td>( \beta ) = -0.853</td>
<td>( t ) = .341</td>
<td>( p ) = .164</td>
</tr>
<tr>
<td>Sleep</td>
<td>( \beta ) = -0.058</td>
<td>( t ) = -0.717</td>
<td>( p ) = .474</td>
<td>( \beta ) = 0.259</td>
<td>( t ) = .796</td>
<td>( p ) = .039</td>
</tr>
<tr>
<td>Staff</td>
<td>( \beta ) = 0.144</td>
<td>( t ) = 1.856</td>
<td>( p ) = .064</td>
<td>( \beta ) = -0.759</td>
<td>( t ) = .448</td>
<td>( p ) = .103</td>
</tr>
<tr>
<td>Value</td>
<td>( \beta ) = -0.429</td>
<td>( t ) = -6.051</td>
<td>( p ) = .000</td>
<td>( \beta ) = -1.285</td>
<td>( t ) = .200</td>
<td>( p ) = .415</td>
</tr>
<tr>
<td>Overall</td>
<td>( \beta ) = 0.242</td>
<td>( t ) = 1.985</td>
<td>( p ) = .048</td>
<td>( \beta ) = -0.35</td>
<td>( t ) = -0.277</td>
<td>( p ) = .782</td>
</tr>
</tbody>
</table>

\( R^2 = 0.114 \), \( F = 7.534 \), \( \text{df} = 7, 652 \)

Note. \( n = 660 \).

**Year 2011.**

There were 660 data points examined in this period of time. A total of 55 hotels for 12 months were analyzed.
ANOVA analysis.

Table 4 shows the ADR category had an R-squared value = 0.097 and an F value = 8.531. The only variable with statistical significance was value, with $p \leq 0.001$ and $\beta = -0.398$. Room, cleanliness, location, sleep, overall, and staff had no statistical significance.

The occupancy category, shown in Table 4, had an R-squared value of 0.048 and an F value = 3.977. The factor with the most impact on occupancy was location, with a $p = 0.006$ and a $\beta = 0.135$. The other variable to have an impact was overall with a $p = 0.013$ and a $\beta = -0.028$. Value, cleanliness, staff, room, and sleep had no statistically significant impact on occupancy for this year.

Table 4. Standardized Coefficients of the Dependent Variables for Year 2011

<table>
<thead>
<tr>
<th>Variable</th>
<th>ADR</th>
<th>OCC</th>
<th>RevPar</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$\beta$</td>
<td>$t$</td>
<td>$p$</td>
</tr>
<tr>
<td>Cleanliness</td>
<td>.111</td>
<td>1.553</td>
<td>.121</td>
</tr>
<tr>
<td>Location</td>
<td>.056</td>
<td>1.178</td>
<td>.239</td>
</tr>
<tr>
<td>Room</td>
<td>.110</td>
<td>1.606</td>
<td>.109</td>
</tr>
<tr>
<td>Sleep</td>
<td>.083</td>
<td>1.151</td>
<td>.250</td>
</tr>
<tr>
<td>Staff</td>
<td>.080</td>
<td>.931</td>
<td>.352</td>
</tr>
<tr>
<td>Value</td>
<td>-.398</td>
<td>-5.967</td>
<td>.000</td>
</tr>
<tr>
<td>$R^2$</td>
<td>.097</td>
<td></td>
<td></td>
</tr>
<tr>
<td>$F$</td>
<td>8.531</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note. $n = 660$. 
The RevPar category had an R-squared value of 0.069 and an \( F \) value = 5.864, as shown in Table 4. Value was the only variable to have a statistically significant impact on RevPar, with a \( p \leq 0.001 \) and \( \beta = -0.369 \). Location, cleanliness, staff, sleep, room, and overall had no statistically significant impact on RevPar for this year.

**Year 2012.**

There were 660 data points examined in this period of time. This included 55 hotels over the course of 12 months.

*ANOVA analysis.*

The ADR category had an R-squared value of 0.199 and an \( F \) value = 22.695, as demonstrated in Table 5. The variable with the most statistical significance was value, with a \( p \leq 0.001 \), a \( \beta = -0.504 \), and a value of \( t = -8.06 \). The second most impactful variable was overall, with a \( p \leq 0.001 \), a \( \beta = 0.465 \), and a value of \( t = 3.995 \). The final variable in the ADR analysis that had statistical significance was room, with a \( p = 0.015 \) and \( \beta = 0.224 \). Cleanliness, sleep, location, and staff had no statistical significance.

The occupancy category, as seen in Table 5, had an R-squared value of 0.034 and an \( F \) value = 3.212. Value was the only variable with significance, having a \( p \leq 0.001 \) and a \( \beta = -0.223 \). Sleep, cleanliness, room, location, staff, and overall had no statistical significant impact on occupancy for this year.

The RevPar category, shown here in Table 5, had an R-squared value of 0.151 and an \( F \) value = 16.189. Value was the variable with the most impact on RevPar, with a \( p \leq 0.001 \), a \( \beta = -0.515 \), and value for \( t = -7.995 \). Overall was the next most impactful variable, with a \( p \leq 0.001 \), a \( \beta = 0.429 \), and value for \( t = 3.540 \). Cleanliness, room, location, sleep, and staff had no statistically significant impact on RevPar for this year.
Table 5. Standardized Coefficients of the Dependent Variables for Year 2012

<table>
<thead>
<tr>
<th></th>
<th>ADR</th>
<th>OCC</th>
<th>RevPar</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$\beta$</td>
<td>$t$</td>
<td>$p$</td>
</tr>
<tr>
<td>Cleanliness</td>
<td>.138</td>
<td>1.732</td>
<td>.084</td>
</tr>
<tr>
<td>Location</td>
<td>.040</td>
<td>.882</td>
<td>.378</td>
</tr>
<tr>
<td>Room</td>
<td>.224</td>
<td>2.444</td>
<td>.015</td>
</tr>
<tr>
<td>Sleep</td>
<td>-.092</td>
<td>-1.378</td>
<td>.169</td>
</tr>
<tr>
<td>Staff</td>
<td>-.021</td>
<td>-.283</td>
<td>.778</td>
</tr>
<tr>
<td>Value</td>
<td>-.504</td>
<td>-8.060</td>
<td>.000</td>
</tr>
<tr>
<td>Overall</td>
<td>.465</td>
<td>3.955</td>
<td>.000</td>
</tr>
</tbody>
</table>

$R^2$ = .199 | .034 | .151
$F$ = 22.695 | 3.212 | 16.189

*Note. n = 660.*

**Year 2013.**

There were 660 data points examined in this period of time. As with previous years, the 55 hotels were examined over the course of the 12 months.

*ANOVA analysis.*

Table 6 demonstrates that the ADR category had an R-squared value of 0.167 and an $F$ value = 18.536. The variable with statistical significance was value, with a $p \leq 0.001$, a $\beta = -0.522$, and value for $t = -7.888$. The second variable was sleep, with a $p \leq 0.001$, a $\beta = 0.305$, and value for $t = 3.729$. The staff, overall, location, cleanliness, and room variables had no statistical significance on ADR.

The occupancy category, as seen in Table 6, had an R-squared value of 0.047 and an $F$ value = 4.53. Value had statistical significance on occupancy, with a $p \leq 0.001$ and a $\beta = -$
0.300. Overall provided the next level of statistical significance, with a \( p = 0.042 \) and a \( \beta = 0.279 \). Room, staff, cleanliness, location, and sleep had no statistically significant impact on occupancy for this year.

Table 6. Standardized Coefficients of the Dependent Variables for Year 2013

<table>
<thead>
<tr>
<th></th>
<th>ADR</th>
<th></th>
<th></th>
<th>OCC</th>
<th></th>
<th></th>
<th>RevPar</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>( \beta )</td>
<td>( t )</td>
<td>( p )</td>
<td>( \beta )</td>
<td>( t )</td>
<td>( p )</td>
<td>( \beta )</td>
<td>( t )</td>
</tr>
<tr>
<td>Cleanliness</td>
<td>.042</td>
<td>.465</td>
<td>.642</td>
<td>.078</td>
<td>.813</td>
<td>.417</td>
<td>.040</td>
<td>.435</td>
</tr>
<tr>
<td>Location</td>
<td>.057</td>
<td>1.235</td>
<td>.217</td>
<td>.039</td>
<td>.787</td>
<td>.431</td>
<td>.084</td>
<td>1.786</td>
</tr>
<tr>
<td>Room</td>
<td>.096</td>
<td>1.017</td>
<td>.309</td>
<td>-.149</td>
<td>-1.471</td>
<td>.142</td>
<td>.062</td>
<td>.645</td>
</tr>
<tr>
<td>Sleep</td>
<td>.305</td>
<td>3.729</td>
<td>.000</td>
<td>.013</td>
<td>.146</td>
<td>.886</td>
<td>.239</td>
<td>2.877</td>
</tr>
<tr>
<td>Staff</td>
<td>.101</td>
<td>1.339</td>
<td>.181</td>
<td>-.075</td>
<td>-.932</td>
<td>.352</td>
<td>.072</td>
<td>.944</td>
</tr>
<tr>
<td>Value</td>
<td>-.522</td>
<td>-7.888</td>
<td>.000</td>
<td>-.300</td>
<td>-4.232</td>
<td>.000</td>
<td>-.535</td>
<td>-7.950</td>
</tr>
<tr>
<td>Overall</td>
<td>.163</td>
<td>1.278</td>
<td>.202</td>
<td>.279</td>
<td>2.039</td>
<td>.042</td>
<td>.203</td>
<td>1.564</td>
</tr>
<tr>
<td>( R^2 )</td>
<td>.167</td>
<td></td>
<td></td>
<td>.047</td>
<td></td>
<td></td>
<td>.139</td>
<td></td>
</tr>
<tr>
<td>( F )</td>
<td>18.536</td>
<td>4.530</td>
<td></td>
<td>15.023</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Note.* \( n = 660 \).

The RevPar category, found in the third column of Table 6, had an R-squared value of 0.139 and an \( F \) value = 15.023. Value was the variable with the most impact on RevPar, with a \( p \leq 0.001 \) and \( \beta = -0.535 \). It was followed by sleep, with a \( p = 0.004 \) and \( \beta = 0.239 \). Location, overall, staff, room, and cleanliness had no statistically significant impact on RevPar for this year.
**Year 2014.**

There were 605 data points examined in this period of time. Since this year provided data from January through November, only 11 months were analyzed for the 55 hotels.

*ANOVA analysis.*

The ADR category had an R-squared value of 0.179 and an $F$ value = 16.743, as Table 7 illustrates. The variable with the most statistical significance was value, with a $p \leq 0.001$ and $\beta = -0.510$. The second most impactful variable was room, with a $p = 0.003$ and $\beta = 0.264$. The final variable in ADR that showed statistical significance was sleep, with a $p = 0.048$ and $\beta = 0.139$. Staff, overall, location, and cleanliness had no statistical significance on ADR.

**Table 7. Standardized Coefficients of the Dependent Variables for Year 2014**

<table>
<thead>
<tr>
<th></th>
<th>ADR</th>
<th>OCC</th>
<th>RevPar</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>$t$</td>
<td>$p$</td>
</tr>
<tr>
<td>Cleanliness</td>
<td>.052</td>
<td>.611</td>
<td>.541</td>
</tr>
<tr>
<td>Location</td>
<td>.050</td>
<td>1.066</td>
<td>.287</td>
</tr>
<tr>
<td>Room</td>
<td>.264</td>
<td>2.950</td>
<td>.003</td>
</tr>
<tr>
<td>Sleep</td>
<td>.139</td>
<td>1.986</td>
<td>.048</td>
</tr>
<tr>
<td>Staff</td>
<td>.122</td>
<td>1.419</td>
<td>.157</td>
</tr>
<tr>
<td>Value</td>
<td>-.510</td>
<td>-7.641</td>
<td>.000</td>
</tr>
<tr>
<td>Overall</td>
<td>.128</td>
<td>1.101</td>
<td>.271</td>
</tr>
<tr>
<td>$R^2$</td>
<td>.179</td>
<td></td>
<td></td>
</tr>
<tr>
<td>$F$</td>
<td>16.743</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Note. n = 605.*
The occupancy category had an R-squared value of 0.076 and an $F$ value = 6.277, as displayed in Table 7. Value was the only variable with statistical significance, with a $p \leq 0.001$ and a $\beta = -0.341$. Staff, overall, room, cleanliness, location, and sleep had no statistically significant impact on occupancy for this year.

The RevPar category, as demonstrated in Table 7, had an R-squared of 0.168 and an $F$ value = 15.564. Value had a statistically significant impact on RevPar with a $p \leq 0.001$ and $\beta = -0.548$. Room also provided a level of statistical significance with a $p = 0.005$ and a $\beta = 0.251$. Location, sleep, overall, cleanliness, and staff had no statistically significant impact on RevPar for this year.

**Yearly summary.**

In summary, the yearly analysis is found in Table 8, which demonstrates the order of statistical significance for the independent variables and for each dependent variable in each year. Across all of the independent variables, value had the greatest frequency: found in thirteen dimensions or 92.9% of the time across the five years of the study. In all cases, value was found to have a negative relationship with all of the dependent variables.
Table 8. Yearly Summary of Variable Significance

<table>
<thead>
<tr>
<th>Year</th>
<th>ADR</th>
<th>OCC</th>
<th>RevPar</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>\textit{Value} Room</td>
<td>-</td>
<td>\textit{Value} Overall</td>
</tr>
<tr>
<td>2011</td>
<td>\textit{Value}</td>
<td>Location Overall</td>
<td>\textit{Value}</td>
</tr>
<tr>
<td>2012</td>
<td>\textit{Value} Overall Room</td>
<td>\textit{Value} Overall</td>
<td>\textit{Value}</td>
</tr>
<tr>
<td>2013</td>
<td>\textit{Value} Sleep</td>
<td>\textit{Value} Overall Sleep</td>
<td>\textit{Value}</td>
</tr>
<tr>
<td>2014</td>
<td>\textit{Value} Room Sleep</td>
<td>\textit{Value} Room</td>
<td>\textit{Value}</td>
</tr>
</tbody>
</table>

\textit{Note.} Independent variables in italics represent a negative relationship, while standard typeset indicates a positive relationship. “-” Indicates there is no variable with significance.

\textbf{Diamond level rankings.}

This study also examined the comparison of hotels based on the diamond level status, which is awarded to each hotel by the third-party American Automobile Association (AAA). For this particular study, only hotels ranked between two-diamond to five-diamond were examined. The data was further sorted to remove 178 cases in which no diamond level status was available. Table 9 displays the details of the descriptive statistics for each diamond level category in this study. In the five-diamond category, there were three hotels, or 5.4%. This is actually more than the broader research indicates for overall number of diamonds, as only 0.4% of the 28,000 hotels
in the AAA system hold a five-diamond status (American Automobile Association, 2016). This suggests the fact that Boston as a market produces hotel properties that offer a good array of luxury locations for guests to stay. The four-diamond category had 26 hotels, or 47.3% of the category, the largest in the study. The AAA system awards only 5.7% of the 28,000 hotels a four-diamond level status (American Automobile Association, 2016). The next largest category was the three-diamond hotels, which had 22 properties, equal to 40% of the market. Finally, the two-diamond hotels offered only four hotels for 7.3% of the market.

Table 9. Descriptive Statistics for Diamonds

<table>
<thead>
<tr>
<th>Diamonds</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>3</td>
<td>5.4</td>
</tr>
<tr>
<td>4</td>
<td>26</td>
<td>47.3</td>
</tr>
<tr>
<td>3</td>
<td>22</td>
<td>40.0</td>
</tr>
<tr>
<td>2</td>
<td>4</td>
<td>7.3</td>
</tr>
</tbody>
</table>

Note. There were a total of 55 hotels for this study.

**Five-diamond status.**

There were a total of three hotels that were ranked with a five-diamond level status for this study. A total of 213 data points were analyzed for this category. This segment analyzed all three hotels during all years of the study.

**ANOVA analysis.**

Hotels awarded the distinguished five-diamond level AAA status, which can be seen in Table 10, have an R-squared value of 0.118 and a value of $F = 2.647$ for ADR. The independent variable of room was the most influential variable compared to the dependent variable of ADR, with a $p \leq 0.001$ and a $\beta = 0.420$. The overall variable was the only other variable of statistical
significance, with a \( p = 0.040 \). Value, sleep, staff, cleanliness, and location had no statistically significant impact on ADR for five-diamond hotels.

Occupancy offered an R-squared value of 0.139 and a value of \( F = 3.171 \), as displayed in Table 10. Overall was the only variable to provide statistical significance for occupancy, with a \( p = 0.028 \) and a \( \beta = -0.314 \). Cleanliness, value, location, sleep, staff, and room had no statistically significant impact on occupancy for five-diamond hotels.

Table 10. Standardized Coefficients of the Dependent Variables for Five-Diamonds

<table>
<thead>
<tr>
<th></th>
<th>( \beta )</th>
<th>( t )</th>
<th>( p )</th>
<th>( B )</th>
<th>( t )</th>
<th>( p )</th>
<th>( \beta )</th>
<th>( t )</th>
<th>( p )</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cleanliness</td>
<td>.011</td>
<td>.094</td>
<td>.925</td>
<td>.230</td>
<td>1.901</td>
<td>.059</td>
<td>-.009</td>
<td>-.071</td>
<td>.944</td>
</tr>
<tr>
<td>Location</td>
<td>-.004</td>
<td>-.044</td>
<td>.965</td>
<td>.109</td>
<td>1.155</td>
<td>.250</td>
<td>.050</td>
<td>.522</td>
<td>.602</td>
</tr>
<tr>
<td>Room</td>
<td>.420</td>
<td>3.404</td>
<td>.001</td>
<td>-.004</td>
<td>-.031</td>
<td>.976</td>
<td>.364</td>
<td>2.953</td>
<td>.004</td>
</tr>
<tr>
<td>Sleep</td>
<td>-.067</td>
<td>-.619</td>
<td>.537</td>
<td>-.122</td>
<td>-1.137</td>
<td>.257</td>
<td>-.078</td>
<td>-.723</td>
<td>.471</td>
</tr>
<tr>
<td>Staff</td>
<td>-.075</td>
<td>-.576</td>
<td>.565</td>
<td>.054</td>
<td>.422</td>
<td>.674</td>
<td>-.024</td>
<td>-.186</td>
<td>.853</td>
</tr>
<tr>
<td>Value</td>
<td>-.079</td>
<td>-.651</td>
<td>.516</td>
<td>-.167</td>
<td>-1.390</td>
<td>.167</td>
<td>-.087</td>
<td>-.717</td>
<td>.474</td>
</tr>
<tr>
<td>Overall</td>
<td>-.297</td>
<td>-2.072</td>
<td>.040</td>
<td>-.314</td>
<td>-2.220</td>
<td>.028</td>
<td>-.355</td>
<td>-2.481</td>
<td>.014</td>
</tr>
</tbody>
</table>

\( R^2 \) | .118 | .139 | .120 |
\( F \)  | 2.647 | 3.171 | 2.678 |

*Note. n = 213. There are three hotels with five-diamond status.*

RevPar, as shown in Table 10, had an R-squared of 0.120 and a value of \( F = 2.678 \). The first variable to provide a statistically significant impact toward RevPar was room, with a \( p = 0.004 \) and a \( \beta = 0.364 \). This was followed by overall, with a \( p = 0.014 \) and a \( \beta = -0.355 \). Sleep, value, location, staff, and cleanliness had no statistically significant impact on RevPar for a five-diamond hotel.
**Four-diamond status.**

There were a total of twenty-six hotels that were ranked with a four-diamond level status for this study. A total of 1,822 data points were analyzed for this category. This included all twenty-six hotels between the years of 2009 to 2014.

*ANOVA analysis.*

As seen in Table 11, for the four-diamond category, the R-squared value for ADR was 0.153 and the value of \( F = 35.715 \). Three variables all provided a statistically significant impact on ADR, with a \( p \leq 0.001 \). Value had a \( \beta = -0.528 \) and a value for \( t = -12.293 \). Location had a statistically significant impact with a \( \beta = 0.172 \) and a value for \( t = 6.028 \). Staff had a \( \beta = 0.193 \) and a value for \( t = 3.909 \). ADR was \( p = 0.008 \) and a \( \beta = 0.169 \). Cleanliness had a \( p = 0.016 \) and a \( \beta = 0.103 \). Finally, sleep had a \( p = 0.029 \) and a \( \beta = 0.086 \). Room had no statistical significance to ADR.

Table 11. Standardized Coefficients of the Dependent Variables for Four-Diamonds

<table>
<thead>
<tr>
<th></th>
<th>ADR</th>
<th>OCC</th>
<th>RevPar</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>( \beta )</td>
<td>( t )</td>
<td>( p )</td>
</tr>
<tr>
<td>Cleanliness</td>
<td>( .103 )</td>
<td>( 2.406 )</td>
<td>( .016 )</td>
</tr>
<tr>
<td>Location</td>
<td>( .172 )</td>
<td>( 6.028 )</td>
<td>( .000 )</td>
</tr>
<tr>
<td>Room</td>
<td>( .080 )</td>
<td>( 1.823 )</td>
<td>( .068 )</td>
</tr>
<tr>
<td>Sleep</td>
<td>( .086 )</td>
<td>( 2.179 )</td>
<td>( .029 )</td>
</tr>
<tr>
<td>Staff</td>
<td>( .193 )</td>
<td>( 3.909 )</td>
<td>( .000 )</td>
</tr>
<tr>
<td>Value</td>
<td>( -.528 )</td>
<td>( -12.293 )</td>
<td>( .000 )</td>
</tr>
<tr>
<td>Overall</td>
<td>( .169 )</td>
<td>( 2.677 )</td>
<td>( .008 )</td>
</tr>
<tr>
<td>( R^2 )</td>
<td>( .153 )</td>
<td>( .032 )</td>
<td>( .104 )</td>
</tr>
</tbody>
</table>
Occupancy, as seen in Table 11, provided an $R^2$ value of 0.032 and a value of $F = 6.433$. Value received is the independent variable with a statistical significant impact, with a $p \leq 0.001$ and a $\beta = -0.0260$. Location can also strongly impact occupancy, with a $p = 0.002$ and a $\beta = 0.094$. Sleep, overall, cleanliness, room, and staff had no statistically significant impact on occupancy for four-diamond hotels.

In a four-diamond hotel, the $R^2$ value was 0.104 and the value of $F = 22.892$ for RevPar, as displayed in Table 11. The most influential independent variable related to RevPar was value, with a $p \leq 0.001$, a $\beta = -0.473$ and a value for $t = -10.711$. The second most influential independent variable was location, with a $p \leq 0.001$, a $\beta = 0.165$, and a value for $t = 5.626$. The third most influential variable related to RevPar, with a $p = 0.007$ and a $\beta = 0.136$, was staff. Finally, cleanliness had a $p = 0.018$ and a $\beta = 0.104$. The variables with no statistically significant impact on RevPar for four-diamond hotels were overall, sleep, and room.

**Three-diamond status.**

There were 22 hotels ranked with a three-diamond level status for this study. A total of 1,414 data points were analyzed for this category. This included five years of data across the 22 hotels.

**ANOVA analysis.**

For the dependent variable of ADR, as seen in Table 12, the $R^2$ value was 0.047 and the value for $F = 7.13$. This category provided four statistically significant independent variables that affected ADR, all with a $p \leq 0.001$. First was location, with a $\beta = -0.167$ and a value for $t = -4.517$. Second was overall, with a $\beta = 0.332$ and a value for $t = 3.810$. Value followed with a $\beta = -0.204$ and a value for $t = -3.770$. Those are followed by cleanliness with a $\beta
= -0.191 and a value for \( t = -3.288 \). Staff, sleep, and room had no statistical impact on ADR of three-diamond hotels.

Table 12. Standardized Coefficients of the Dependent Variables for Three-Diamonds

<table>
<thead>
<tr>
<th></th>
<th>ADR</th>
<th></th>
<th></th>
<th>OCC</th>
<th></th>
<th></th>
<th>RevPar</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>( t )</td>
<td>( p )</td>
<td>( \beta )</td>
<td>( t )</td>
<td>( p )</td>
<td>( \beta )</td>
<td>( t )</td>
<td>( p )</td>
</tr>
<tr>
<td>Cleanliness</td>
<td>-.191</td>
<td>-3.288</td>
<td>.001</td>
<td>.027</td>
<td>.472</td>
<td>.637</td>
<td>-.167</td>
<td>-2.889</td>
<td>.004</td>
</tr>
<tr>
<td>Location</td>
<td>-.167</td>
<td>-4.517</td>
<td>.000</td>
<td>.003</td>
<td>.068</td>
<td>.946</td>
<td>-.119</td>
<td>-3.218</td>
<td>.001</td>
</tr>
<tr>
<td>Room</td>
<td>.004</td>
<td>.062</td>
<td>.950</td>
<td>-.002</td>
<td>-.025</td>
<td>.980</td>
<td>-.001</td>
<td>-.022</td>
<td>.982</td>
</tr>
<tr>
<td>Sleep</td>
<td>-.005</td>
<td>-.091</td>
<td>.928</td>
<td>.052</td>
<td>.961</td>
<td>.337</td>
<td>.009</td>
<td>.163</td>
<td>.871</td>
</tr>
<tr>
<td>Staff</td>
<td>.090</td>
<td>1.678</td>
<td>.094</td>
<td>-.026</td>
<td>-.472</td>
<td>.637</td>
<td>.073</td>
<td>1.356</td>
<td>.175</td>
</tr>
<tr>
<td>Value</td>
<td>-.204</td>
<td>-3.770</td>
<td>.000</td>
<td>-.327</td>
<td>-6.005</td>
<td>.000</td>
<td>-.304</td>
<td>-5.624</td>
<td>.000</td>
</tr>
<tr>
<td>Overall</td>
<td>.332</td>
<td>3.810</td>
<td>.000</td>
<td>.219</td>
<td>2.496</td>
<td>.013</td>
<td>.383</td>
<td>4.409</td>
<td>.000</td>
</tr>
<tr>
<td>R (^2)</td>
<td>.047</td>
<td>.037</td>
<td></td>
<td>.052</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>F</td>
<td>7.213</td>
<td>5.681</td>
<td>8.123</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Note: \( n = 1,414 \). There are 22 hotels with a three-diamond level status.*

For the category of occupancy, as displayed in Table 12, the R-squared value was 0.037 and the value for \( F = 5.681 \). There were two variables to impact occupancy. First, value had an impact with a \( p \leq 0.001 \) and a \( \beta = -0.327 \). The second was overall, with a \( p = 0.013 \) and a \( \beta = 0.219 \). Staff, cleanliness, location, and room had no statistical impact on occupancy in three-diamond hotels.

RevPar for this category, also found in Table 12, had an R-squared value of 0.052 and a value of \( F = 8.123 \). Three variables had a statistically significant impact on RevPar with a \( p \leq 0.001 \): value, overall, and location. Value had a \( \beta = -0.304 \) and a value for \( t = -5.624 \). Overall had a \( \beta = 0.383 \) and a value for \( t = 4.409 \). Finally, location had a \( \beta = -0.119 \) and a value for \( t = -
3.218. In addition, cleanliness did display a statistically significant impact, with a $p = 0.004$ and a $\beta = -0.167$. Staff, sleep, and room had no statistical impact on RevPar of three-diamond hotels.

**Two-diamond status.**

During the five years evaluated for this study, there were a total of four hotels ranked with a two-diamond level status. The four hotels produced a total of 283 data points, all of which were analyzed for this category.

**ANOVA analysis.**

The dependent variable of ADR had several independent variables providing an influence for two-diamond hotels, as found in Table 13.

**Table 13. Standardized Coefficients of the Dependent Variables for Two-Diamonds**

<table>
<thead>
<tr>
<th></th>
<th>ADR</th>
<th>OCC</th>
<th>RevPar</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$B$</td>
<td>$t$</td>
<td>$p$</td>
</tr>
<tr>
<td>Cleanliness</td>
<td>.151</td>
<td>1.182</td>
<td>.238</td>
</tr>
<tr>
<td>Location</td>
<td>.047</td>
<td>.611</td>
<td>.542</td>
</tr>
<tr>
<td>Room</td>
<td>.345</td>
<td>2.648</td>
<td>.009</td>
</tr>
<tr>
<td>Sleep</td>
<td>.131</td>
<td>1.204</td>
<td>.230</td>
</tr>
<tr>
<td>Staff</td>
<td>.313</td>
<td>2.411</td>
<td>.017</td>
</tr>
<tr>
<td>Value</td>
<td>-.383</td>
<td>-2.871</td>
<td>.005</td>
</tr>
<tr>
<td>Overall</td>
<td>-.374</td>
<td>-2.118</td>
<td>.035</td>
</tr>
<tr>
<td>$R^2$</td>
<td>.142</td>
<td>.132</td>
<td>.119</td>
</tr>
<tr>
<td>$F$</td>
<td>4.664</td>
<td>4.307</td>
<td>3.835</td>
</tr>
</tbody>
</table>

*Note. $n = 283$. There are four hotels ranked with a two-diamond level status.*

This category had an R-squared value of 0.142 and a value for $F = 4.644$. The first variable to provide a statistical influence was value, with a $p = 0.005$ and a $\beta = -0.383$. Room
had a $p = 0.009$ and a $\beta = 0.345$. Staff had a $p = 0.017$ and a $\beta = 0.313$. Finally, overall had the last line of statistical impact, with a $p = 0.035$ and a $\beta = -0.374$. Sleep, cleanliness, and location had no statistically significant impact on ADR for two-diamond hotels.

Occupancy for two-diamond hotels, as displayed in Table 13, had an R-squared value of 0.132 and a value for $F = 4.307$. There were only two independent variables that had a statistically significant level of impact on occupancy, each with a $p \leq 0.001$—location and value. Location had a $\beta = 0.330$ and a value of $t = 4.306$. Value had a $\beta = -0.435$ and a value for $t = -3.245$. Overall, sleep, room, staff, and cleanliness had no statistical impact on occupancy for two-diamond hotels.

RevPar had an R-squared value of 0.119 and a value of $F = 3.835$, along with several independent variables that statistically impacted this category, as displayed in Table 13. First was value, with a $p = 0.002$ and a $\beta = -0.431$. Additionally, location had a $p = 0.019$ and a $\beta = 0.182$. Staff had a $p = 0.033$ and a $\beta = 0.283$. Next was room, with a $p = 0.041$ and a $\beta = 0.271$. Finally, overall had a $p = 0.050$ and a $\beta = -0.352$. Sleep and cleanliness had no statistical impact on RevPar for two-diamond hotels.

**Diamond level summary.**

The summary of all diamond levels compared to the dependent variables can be seen in Table 14. In the luxury category of five-diamond hotels, value was not found to be a significant independent variable. In part, guests staying at a luxury property are seeking an experience that is extravagant in nature and expect that they will be paying more that experience. Hence, the overall rating of the stay proved to be far more important. However, once the diamond rank decreases, the value expected would increase.
Table 14. Diamond Summary of Variable Significance

<table>
<thead>
<tr>
<th>ADR</th>
<th>OCC</th>
<th>RevPar</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Room</td>
<td>Room</td>
</tr>
<tr>
<td></td>
<td><em>Overall</em></td>
<td><em>Overall</em></td>
</tr>
<tr>
<td>4</td>
<td><em>Value</em></td>
<td><em>Value</em></td>
</tr>
<tr>
<td></td>
<td>Location</td>
<td>Location</td>
</tr>
<tr>
<td></td>
<td>Staff</td>
<td>Staff</td>
</tr>
<tr>
<td></td>
<td>Overall</td>
<td>Overall</td>
</tr>
<tr>
<td></td>
<td>Cleanliness</td>
<td>Cleanliness</td>
</tr>
<tr>
<td></td>
<td>Sleep</td>
<td>Sleep</td>
</tr>
<tr>
<td>3</td>
<td><em>Location</em></td>
<td><em>Value</em></td>
</tr>
<tr>
<td></td>
<td><em>Overall</em></td>
<td>Overall</td>
</tr>
<tr>
<td></td>
<td><em>Value</em></td>
<td>Location</td>
</tr>
<tr>
<td></td>
<td>Cleanliness</td>
<td><em>Cleanliness</em></td>
</tr>
<tr>
<td></td>
<td>Sleep</td>
<td><em>Cleanliness</em></td>
</tr>
<tr>
<td>2</td>
<td><em>Value</em></td>
<td><em>Location</em></td>
</tr>
<tr>
<td></td>
<td>Room</td>
<td>Room</td>
</tr>
<tr>
<td></td>
<td>Staff</td>
<td>Staff</td>
</tr>
<tr>
<td></td>
<td><em>Overall</em></td>
<td><em>Overall</em></td>
</tr>
</tbody>
</table>

*Note.* Independent variables in italics represent a negative relationship, while standard typeset indicates a positive relationship.

**Price of hotels.**

In this segmentation of the data, the chain scale was broken into various categories; (1) luxury chain, (2) upper upscale chain, (3) upscale chains, (4) upper midscale chains, (5) midscale chains, (6) economy chains, and (7) independent hotel. The 3,933 data points broke down in the following divisions: (1) 780, (2) 1,277, (3) 568, (4) 316, (5) 71, (6) 0, and (7) 921. Table 15 demonstrates the descriptive statistics for the price category of hotels. Out of the 55 hotels in
this study, 11 of them, or 20% of the hotels, were in the luxury category. The largest category was the upper upscale with 17 hotels, or 30.9% of the category.

The upscale category included eight hotels, a total percentage of 14.5%. This followed with five hotels in the upper midscale category, equating to 9% of the category. The midscale price category had the least, with only one hotel, representing 1.8% of the category. Finally, the independent category contained 13 hotels, the second largest in the competitive set of hotels, equivalent to 23.6% of the properties.

Table 15. Descriptive Statistics for Price

<table>
<thead>
<tr>
<th>Price</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Luxury</td>
<td>11</td>
<td>20.0</td>
</tr>
<tr>
<td>Upper Upscale</td>
<td>17</td>
<td>30.9</td>
</tr>
<tr>
<td>Upscale</td>
<td>8</td>
<td>14.5</td>
</tr>
<tr>
<td>Upper Midscale</td>
<td>5</td>
<td>9.0</td>
</tr>
<tr>
<td>Midscale</td>
<td>1</td>
<td>1.8</td>
</tr>
<tr>
<td>Economy</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Independent</td>
<td>13</td>
<td>23.6</td>
</tr>
</tbody>
</table>

*Note. There were a total of 55 hotels for this study.*

**Luxury chain.**

This category had a total of 780 data points that were analyzed. There are a total of 11 hotels that fit into the luxury chain category.

**ANOVA analysis.**

Upon examination of the ADR dependent variable for luxury chain, as found in Table 16, there was an R-squared value of 0.095 and a value for $F = 8.457$. The most impactful
independent variable was location, with a \( p \leq 0.001 \) and a \( \beta = -0.313 \). Next was room, with a \( p = 0.004 \) and a \( \beta = 0.235 \). Finally, cleanliness had a statistically significant impact with a \( p = 0.005 \) and a \( \beta = -0.240 \). Sleep, value, staff, and overall had no significant impact on ADR in the luxury chain price model.

Occupancy only had two variables that made a statistical impact on the percentage. It displayed an R-squared value of 0.046 and a value for \( F = 3.901 \), as seen in Table 16. Value was statistically significant, with a \( p = 0.002 \) and a \( \beta = -0.221 \). Sleep was the other statistically significant variable, with a \( p = 0.031 \) and a \( \beta = -0.170 \). The remaining variables, location, room, staff, cleanliness, and overall had no statistical impact on occupancy for this price category.

<table>
<thead>
<tr>
<th></th>
<th>ADR</th>
<th>OCC</th>
<th>RevPar</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>( \beta )</td>
<td>( t )</td>
<td>( p )</td>
</tr>
<tr>
<td>Cleanliness</td>
<td>-0.240</td>
<td>-2.830</td>
<td>0.005</td>
</tr>
<tr>
<td>Location</td>
<td>-0.313</td>
<td>-5.631</td>
<td>0.000</td>
</tr>
<tr>
<td>Room</td>
<td>0.235</td>
<td>2.869</td>
<td>0.004</td>
</tr>
<tr>
<td>Sleep</td>
<td>0.119</td>
<td>1.556</td>
<td>0.120</td>
</tr>
<tr>
<td>Staff</td>
<td>0.052</td>
<td>0.690</td>
<td>0.491</td>
</tr>
<tr>
<td>Value</td>
<td>-0.079</td>
<td>-1.113</td>
<td>0.266</td>
</tr>
<tr>
<td>Overall</td>
<td>-0.005</td>
<td>-0.044</td>
<td>0.965</td>
</tr>
<tr>
<td>( R^2 )</td>
<td>0.095</td>
<td>0.046</td>
<td></td>
</tr>
<tr>
<td>( F )</td>
<td>8.457</td>
<td>3.901</td>
<td>5.910</td>
</tr>
</tbody>
</table>
RevPar had an R-squared value of 0.069 and a value for $F = 5.910$, as displayed in Table 16. Location had a statistically significant impact, with a $p \leq 0.001$ and $\beta = -0.208$. Room had also had a statistically significant impact, with a $p = 0.010$ and a $\beta = 0.215$. Finally, the last variable with statistical impact was value, with a $p = 0.031$ and a $\beta = -0.155$. Cleanliness, sleep, staff and overall had no statistical impact on RevPar for this price category.

**Upper upscale chains.**

This category had a total of 1,277 data points that were analyzed. There are 17 hotels that fit into this upper upscale chain category. Statistically significant impacts from some variables were found on both ADR and RevPar.

*ANOVA analysis.*

ADR, as identified in Table 17, provided a value for R-squared of 0.147 and a value for $F = 23.261$. Four independent variables had the most significance on ADR, with a $p \leq 0.001$. In first place was value, with a $\beta = -0.556$ and a value for $t = -11.345$. Second was location, with a $\beta = 0.144$ and a value for $t = 4.482$. Third was staff, with a $\beta = 0.205$ and a value for $t = 4.058$. Finally, overall had a $\beta = 0.241$ with a value for $t = 3.403$. The last variable to provide a significant impact on ADR was sleep, with a $p = 0.002$ and a $\beta = 0.144$.

Occupancy had an R-squared value of 0.073 and a value for $F = 10.633$, as can be seen in Table 17. Both value and location had a value for $p \leq 0.001$. Value had a $\beta = -0.370$ and a value for $t = -7.231$, while location had a $\beta = 0.120$ and a value for $t = 3.575$. These were followed by sleep, with a $p = 0.002$ and a $\beta = 0.139$. Finally, the overall variable had a $p = 0.014$ and a $\beta = 0.181$. Variables that had no statistical impact on occupancy for the upper upscale chain included room, cleanliness, and staff.
Table 17. Standardized Coefficients of the Dependent Variables for Upper Upscale Chain Price of Hotels

<table>
<thead>
<tr>
<th></th>
<th>ADR</th>
<th>OCC</th>
<th>RevPar</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>β</td>
<td>t</td>
<td>p</td>
</tr>
<tr>
<td>Cleanliness</td>
<td>.009</td>
<td>.183</td>
<td>.855</td>
</tr>
<tr>
<td>Location</td>
<td>.144</td>
<td>4.482</td>
<td>.000</td>
</tr>
<tr>
<td>Room</td>
<td>-.007</td>
<td>-.162</td>
<td>.871</td>
</tr>
<tr>
<td>Sleep</td>
<td>.132</td>
<td>3.032</td>
<td>.002</td>
</tr>
<tr>
<td>Staff</td>
<td>.205</td>
<td>4.058</td>
<td>.000</td>
</tr>
<tr>
<td>Value</td>
<td>-.556</td>
<td>-11.345</td>
<td>.000</td>
</tr>
<tr>
<td>Overall</td>
<td>.241</td>
<td>3.403</td>
<td>.001</td>
</tr>
<tr>
<td>R²</td>
<td>.147</td>
<td>.073</td>
<td>.136</td>
</tr>
<tr>
<td>F</td>
<td>23.261</td>
<td>10.633</td>
<td>21.165</td>
</tr>
</tbody>
</table>

Note: n = 1,277. There are 17 hotels in the upper upscale chain category.

RevPar, similar to ADR, had several variables that displayed the same level of statistically significant impact. Its R-squared value was 0.136 and the value for $F = 21.165$, as detailed in Table 17. The four variables with a value for $p \leq 0.001$ were value, location, sleep and overall. Value had a $\beta = -0.542$ and a value for $t = -10.977$. Location had a $\beta = 0.159$ and a value for $t = 4.934$. Sleep had a $\beta = 0.151$ and a value for $t = 3.426$. Finally, the overall variable had a value of $\beta = 0.240$ with a value for $t = 3.370$. Finally, the last variable to impact RevPar with any statistical significance was staff, with a $p = 0.002$ and a $\beta = 0.154$. Room and cleanliness had no statistical impact on RevPar for the upper upscale chain of hotels.

**Upscale chains.**

This category had a total of 568 data points that were analyzed. There were a total of eight hotels that fit into the upscale chain category over the five years.
ANOVA analysis.

The ADR variable, as displayed in Table 18, had an R-squared value of 0.234 and a value for \( F = 14.123 \). The two variables which had a statistically significant impact on ADR, each with a value of \( p \leq 0.001 \), were value and location. Value had a \( \beta = -0.363 \) and a value for \( t = 3.961 \); Location had a \( \beta = 0.216 \) and a value for \( t = 3.555 \). In addition, the overall variable had a \( p = 0.004 \) and a \( \beta = 0.441 \). The remaining variables, staff, sleep, cleanliness, and room, had no impact on ADR for the upscale chain category.

Table 18. Standardized Coefficients of the Dependent Variables for Upscale Chain Price of Hotels

<table>
<thead>
<tr>
<th></th>
<th>ADR</th>
<th>OCC</th>
<th>RevPar</th>
</tr>
</thead>
<tbody>
<tr>
<td>B</td>
<td>( \beta )</td>
<td>( t )</td>
<td>( p )</td>
</tr>
<tr>
<td>Cleanliness</td>
<td>.085</td>
<td>.914</td>
<td>.361</td>
</tr>
<tr>
<td>Location</td>
<td>.216</td>
<td>3.555</td>
<td>.000</td>
</tr>
<tr>
<td>Room</td>
<td>.015</td>
<td>.128</td>
<td>.898</td>
</tr>
<tr>
<td>Sleep</td>
<td>.015</td>
<td>.156</td>
<td>.876</td>
</tr>
<tr>
<td>Staff</td>
<td>.055</td>
<td>.595</td>
<td>.553</td>
</tr>
<tr>
<td>Value</td>
<td>-.363</td>
<td>-3.961</td>
<td>.000</td>
</tr>
<tr>
<td>Overall</td>
<td>.441</td>
<td>2.925</td>
<td>.004</td>
</tr>
</tbody>
</table>

\( R^2 \) | .234 | .083 | .199 |

\( F \) | 14.123 | 4.213 | 11.495 |

Note. \( n = 568 \). The upscale chain price had eight hotels.

The occupancy variable, as displayed in Table 18, had an R-squared value of 0.083 and a value for \( F = 4.213 \). The first statistically significant variable was value, with a \( p \leq 0.001 \) and a \( \beta = -0.351 \). The second variable to have a statistical impact was sleep, with a value for \( p = 0.017 \).
and a $\beta = 0.248$. The remaining variables, overall, staff, room, location, and cleanliness, had no statistical impact on the occupancy percentage of upscale chain hotels.

Finally, in the RevPar aspect, as detailed in Table 18, the R-squared value was 0.199 with a value for $F = 11.495$. The variable of was value statistically significant, with a $p \leq 0.001$ and a $\beta = -0.393$. In addition location, with a $p = 0.004$ and a $\beta = 0.180$, and overall, with a $p = 0.005$ and a $\beta = 0.438$ were also statistically significant. The remaining variables, sleep, cleanliness, room, and staff, had no statistical impact on the RevPar of upscale chain hotels.

**Upper midscale chains.**

This category had a total of 316 data points that were analyzed over the course of the five years for this study. There were a total of five hotels that fit into this upper midscale chain category.

**ANOVA analysis.**

For this category, ADR, as seen in Table 19, resulted in an R-squared value of 0.214 and the value for $F = 8.889$. Two variables, overall and staff, both had a value of $p \leq 0.001$. Overall had a $\beta = -0.624$ and a value of $t = -4.546$, while staff had a $\beta = 0.474$ and a value for $t = 4.341$. The last variable to provide a statistical impact on ADR was location, with a $p = 0.024$ and a $\beta = -0.212$. The variables room, cleanliness, sleep, and value had no statistical impact on ADR for the upper midscale chain hotels.

The occupancy percentage was significantly impacted by two variables that produced an R-squared value of 0.151 and a value for $F = 5.789$, as identified in Table 19. The first to provide a statistically significant impact was overall, with a $p \leq 0.001$ and a $\beta = -0.465$. The second variable was staff, with a $p = 0.048$ and a $\beta = 0.226$. The remaining variables, location,
cleanliness, room, value, and sleep, had no statistically significant impact on the occupancy of the upper midscale chain hotels.

Table 19. Standardized Coefficients of the Dependent Variables for Upper Midscale Chain Price of Hotels

<table>
<thead>
<tr>
<th></th>
<th>ADR</th>
<th>OCC</th>
<th>RevPar</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$\beta$</td>
<td>$t$</td>
<td>$p$</td>
</tr>
<tr>
<td>Cleanliness</td>
<td>-.079</td>
<td>-.759</td>
<td>.449</td>
</tr>
<tr>
<td>Location</td>
<td>-.212</td>
<td>-2.276</td>
<td>.024</td>
</tr>
<tr>
<td>Room</td>
<td>.093</td>
<td>.827</td>
<td>.409</td>
</tr>
<tr>
<td>Sleep</td>
<td>.067</td>
<td>.681</td>
<td>.496</td>
</tr>
<tr>
<td>Staff</td>
<td>.474</td>
<td>4.341</td>
<td>.000</td>
</tr>
<tr>
<td>Value</td>
<td>-.016</td>
<td>-.187</td>
<td>.852</td>
</tr>
<tr>
<td>Overall</td>
<td>-.624</td>
<td>-4.546</td>
<td>.000</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>R^2</th>
<th>F</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>.214</td>
<td>8.889</td>
<td>7.589</td>
</tr>
</tbody>
</table>

Note. $n = 316$. The upper midscale chain included five hotels.

RevPar, as displayed in Table 19, provided an R-squared value of 0.189 and a value for $F = 7.589$. Both of the independent variables that had a statistical impact on RevPar had a significance of $p \leq 0.001$. The overall value provided a $\beta = -0.574$ and a value for $t = -4.113$. The staff variable provided a $\beta = 0.387$ and a value for $t = 3.486$. Location, sleep, value, room, and cleanliness had no statistical impact on the RevPar of the upper midscale chain hotels.
**Midscale chains.**

This category had a total of 71 data points that were analyzed. There was only one hotel that fit into the midscale chain category. Each of the dependent variables only had one independent variable provide a level of significance.

**ANOVA analysis.**

The ADR, as displayed in Table 20, provided an R-squared value of 0.237 and a value for $F = 1.913$.

<table>
<thead>
<tr>
<th></th>
<th>ADR</th>
<th>OCC</th>
<th>RevPar</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$\beta$</td>
<td>$t$</td>
<td>$p$</td>
</tr>
<tr>
<td>Cleanliness</td>
<td>-.164</td>
<td>-.566</td>
<td>.575</td>
</tr>
<tr>
<td>Location</td>
<td>.153</td>
<td>.886</td>
<td>.381</td>
</tr>
<tr>
<td>Room</td>
<td>.044</td>
<td>.146</td>
<td>.884</td>
</tr>
<tr>
<td>Sleep</td>
<td>.108</td>
<td>.380</td>
<td>.706</td>
</tr>
<tr>
<td>Staff</td>
<td>.654</td>
<td>1.911</td>
<td>.063</td>
</tr>
<tr>
<td>Value</td>
<td>-.919</td>
<td>-2.732</td>
<td>.009</td>
</tr>
<tr>
<td>Overall</td>
<td>.009</td>
<td>.020</td>
<td>.984</td>
</tr>
<tr>
<td>$R^2$</td>
<td>.237</td>
<td></td>
<td></td>
</tr>
<tr>
<td>$F$</td>
<td>1.913</td>
<td>2.181</td>
<td></td>
</tr>
</tbody>
</table>

**Note.** $n = 71$. Only one hotel belonged to the midscale chain price category.

Value was the variable of statistical significance for ADR, with a value for $p = 0.009$ and a $\beta = -0.919$. Staff, location, cleanliness, sleep, room, and overall had no statistical impact on ADR for the midscale chain of hotels.
The occupancy variable, as displayed in Table 20, produced an R-squared value of 0.262 and a value for $F = 2.181$. The variable that provided statistical significance was location, with a $p = 0.054$ and a $\beta = 0.337$. The remaining variables, value, cleanliness, room, staff, overall, and sleep had no statistical impact on the occupancy percentage of midscale chain hotels.

The last examination, found in Table 20, focused on RevPar, where there was an R-squared of 0.248 and a value for $F = 2.028$. Value was the only variable with statistical significance with a value for $p = 0.019$ and a $\beta = -0.815$. The remaining six variables, location, staff, cleanliness, room, sleep, and overall had no statistical impact on RevPar for the midscale chain hotel set.

**Economy chains.**

This category had a total of zero data points, so there was nothing that required analysis, as there were no hotels in the economy chain category for this study.

**Independents.**

This category had a total of 921 data points that were analyzed. There are a total of 13 hotels that fit into the independent chain category.

**ANOVA analysis.**

The ADR analysis provided three independent variables with statistical significance of a $p \leq 0.001$, as indicated in Table 21, while the R-squared value was 0.348 and the value for $F = 52.878$. First was value, with a $\beta = -0.679$ and a value for $t = -12.448$. Next was room, with a $\beta = 0.474$ and a value for $t = 6.240$. Finally, staff had a $\beta = 0.324$ and a value for $t = 4.293$. In addition, overall had a value for $p = 0.007$ and a $\beta = 0.277$, while cleanliness had a value for $p = 0.028$ and a $\beta = -0.163$. Sleep and location had no statistical impact on the ADR for the independent category of hotels.
The occupancy for independent hotels, as seen in Table 21, had an R-squared value of 0.064 and a value for $F = 6.710$. The variable of staff statistically significant, with a value for $p = 0.006$ and a $\beta = 0.249$. In addition, value was statistically significant with a $p = 0.007$ and a $\beta = -0.177$. Finally, room had a $p = 0.018$ and a $\beta = -0.216$. Location, overall, cleanliness, and sleep had no statistical impact on the occupancy percentage for independent hotels.

Table 21. Standardized Coefficients of the Dependent Variables for Independent Price of Hotels

<table>
<thead>
<tr>
<th></th>
<th>ADR</th>
<th>OCC</th>
<th>RevPar</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$\beta$</td>
<td>$t$</td>
<td>$p$</td>
</tr>
<tr>
<td>Cleanliness</td>
<td>-.163</td>
<td>-.2198</td>
<td>.028</td>
</tr>
<tr>
<td>Location</td>
<td>.032</td>
<td>.825</td>
<td>.410</td>
</tr>
<tr>
<td>Room</td>
<td>.474</td>
<td>6.240</td>
<td>.000</td>
</tr>
<tr>
<td>Sleep</td>
<td>.103</td>
<td>1.554</td>
<td>.121</td>
</tr>
<tr>
<td>Staff</td>
<td>.324</td>
<td>4.293</td>
<td>.000</td>
</tr>
<tr>
<td>Value</td>
<td>-.679</td>
<td>-12.448</td>
<td>.000</td>
</tr>
<tr>
<td>Overall</td>
<td>.277</td>
<td>2.727</td>
<td>.007</td>
</tr>
<tr>
<td>$R^2$</td>
<td>.348</td>
<td></td>
<td>.064</td>
</tr>
<tr>
<td>$F$</td>
<td>52.878</td>
<td></td>
<td>6.710</td>
</tr>
</tbody>
</table>

*Note. n = 921. Independent hotels are comprised of 13 properties.*

The RevPar variable had an R-squared value of 0.206 and a value of $F = 25.646$, as seen in Table 21. Three variables had the highest levels of statistical significance with a value of $p \leq 0.001$, value, staff, and room. Value had a $\beta = -0.613$ and a value for $t = -10.189$. Staff had a $\beta = 0.368$ and a value for $t = 4.420$. Finally, room presented a $\beta = 0.305$ and a value for $t = 3.643$. In addition, cleanliness provided a significant statistical impact, with a value for $p = 0.044$ and a $\beta =$
-0.165. Overall, sleep and location had no statistical impact on RevPar for the independent hotel category.

Table 22. Price Summary of Variable Significance

<table>
<thead>
<tr>
<th>Category</th>
<th>ADR</th>
<th>OCC</th>
<th>RevPar</th>
</tr>
</thead>
<tbody>
<tr>
<td>Luxury</td>
<td>Location</td>
<td>Room</td>
<td>Location</td>
</tr>
<tr>
<td></td>
<td>Value</td>
<td>Sleep</td>
<td>Room</td>
</tr>
<tr>
<td>Upper Upscale</td>
<td>Value</td>
<td>Location</td>
<td>Value</td>
</tr>
<tr>
<td></td>
<td>Location</td>
<td>Sleep</td>
<td>Location</td>
</tr>
<tr>
<td></td>
<td>Staff</td>
<td>Overall</td>
<td>Sleep</td>
</tr>
<tr>
<td></td>
<td>Sleep</td>
<td>Overall</td>
<td>Overall</td>
</tr>
<tr>
<td>Upscale</td>
<td>Value</td>
<td>Location</td>
<td>Value</td>
</tr>
<tr>
<td></td>
<td>Location</td>
<td>Sleep</td>
<td>Location</td>
</tr>
<tr>
<td></td>
<td>Overall</td>
<td>Sleep</td>
<td>Overall</td>
</tr>
<tr>
<td>Upper Midscale</td>
<td>Overall</td>
<td>Location</td>
<td>Overall</td>
</tr>
<tr>
<td></td>
<td>Staff</td>
<td>Staff</td>
<td>Staff</td>
</tr>
<tr>
<td>Midscale</td>
<td>Value</td>
<td>Location</td>
<td>Value</td>
</tr>
<tr>
<td>Independent</td>
<td>Value</td>
<td>Staff</td>
<td>Value</td>
</tr>
<tr>
<td></td>
<td>Room</td>
<td>Staff</td>
<td>Staff</td>
</tr>
<tr>
<td></td>
<td>Staff</td>
<td>Value</td>
<td>Room</td>
</tr>
<tr>
<td></td>
<td>Overall</td>
<td>Room</td>
<td>Cleanliness</td>
</tr>
</tbody>
</table>

*Note.* Independent variables in italics represent a negative relationship, while standard typeset indicates a positive relationship.
Price summary.

The price summary of the independent variables outlined in the dependent variable categories can be seen in Table 22. Value is the variable, or attribute, that had the greatest frequency across all of the dependent variables.

Hotel market.

In the division of hotels by market, the category was divided by STR into six categories: (1) luxury, (2) upper upscale, (3) upscale, (4) upper midscale, (5) midscale, and (6) economy. There were 202 cases that were removed, as there was no data provided to this match. Additionally, economy had no hotels in this market for the category, so no analysis was provided. In the remaining categories, the following total numbers of reviews were available by market: (1) 2,105, (2) 2,175, (3) 1,010, (5) 458, and (6) 89. Table 23 outlines the descriptive statistics for this category of hotels in the study. In the luxury market of hotels, there are 13 hotels, or 23.6% of the category, representing the second largest segment. The upper upscale market, with 26 hotels or 47.3% of the competitive set, represents the largest hotel segment. The upscale market has eight hotels, equivalent to 14.5% of the hotels in the study. The second smallest group, comprised of six hotels and representing only 10.9% of the market, is the upper midscale category. Finally, the midscale market has one hotel, which is 1.8% of the market for this data set.

Luxury.

This category had a total of 2,105 cases that were analyzed. There are a total of 13 hotels that fit into this luxury hotel market category.
Table 23. Descriptive Statistics for Market

<table>
<thead>
<tr>
<th>Market</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Luxury</td>
<td>13</td>
<td>23.6</td>
</tr>
<tr>
<td>Upper Upscale</td>
<td>26</td>
<td>47.3</td>
</tr>
<tr>
<td>Upscale</td>
<td>8</td>
<td>14.5</td>
</tr>
<tr>
<td>Upper Midscale</td>
<td>6</td>
<td>10.9</td>
</tr>
<tr>
<td>Economy</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Midscale</td>
<td>1</td>
<td>1.8</td>
</tr>
</tbody>
</table>

*Note. There were a total of 55 hotels for this study.*

ANOVA analysis.

In the luxury market, the ADR, as shown in Table 24, had an R-squared value of 0.071 and a value for $F = 7.897$. The variable of location was statistically significant, with a value of $p \leq 0.001$ and a $\beta = -0.0251$. Next was room, with a value of $p = 0.003$ and a $\beta = 0.222$. Finally, cleanliness had a value of $p = 0.004$ and a $\beta = -0.221$. The variables sleep, value, staff, and overall had no statistical impact on ADR in the luxury market.

Two variables provided a statistical impact on occupancy, as seen in Table 24, with an R-squared value of 0.034 and a value for $F = 3.680$. Value had a $p = 0.008$ and a $\beta = -0.172$. The only other variable to have a significant statistical impact on occupancy was sleep, with a value for $p = 0.050$ and a $\beta = -0.139$. Location, room, cleanliness, staff, and overall had no statistical impact on occupancy for the luxury market of hotels.

The RevPar aspect of the luxury market, as displayed in Table 24, had an R-squared value of 0.050 and a value for $F = 5.462$. The first variable to cause a statistical impact on RevPar was location, with a value for $p = 0.004$ and a $\beta = -0.147$. Room followed with $p = 0.012$...
and a $\beta = 0.192$. This analysis concluded with a statistical impact by the variable of value, with a value for $p = 0.016$ and a $\beta = -0.156$. Cleanliness, staff, sleep, and overall had no statistical impact on RevPar in the luxury market.

Table 24. Standardized Coefficients of the Dependent Variables for Luxury Hotel Market

<table>
<thead>
<tr>
<th></th>
<th>ADR</th>
<th>OCC</th>
<th>RevPar</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$\beta$</td>
<td>$t$</td>
<td>$p$</td>
</tr>
<tr>
<td>Cleanliness</td>
<td>-.221</td>
<td>-2.928</td>
<td>.004</td>
</tr>
<tr>
<td>Location</td>
<td>-.251</td>
<td>-5.021</td>
<td>.000</td>
</tr>
<tr>
<td>Room</td>
<td>.222</td>
<td>2.933</td>
<td>.003</td>
</tr>
<tr>
<td>Sleep</td>
<td>.130</td>
<td>1.879</td>
<td>.061</td>
</tr>
<tr>
<td>Staff</td>
<td>.094</td>
<td>1.345</td>
<td>.179</td>
</tr>
<tr>
<td>Value</td>
<td>-.106</td>
<td>-1.663</td>
<td>.097</td>
</tr>
<tr>
<td>Overall</td>
<td>-.061</td>
<td>-1.605</td>
<td>.545</td>
</tr>
<tr>
<td>$R^2$</td>
<td>.071</td>
<td>.034</td>
<td>.050</td>
</tr>
<tr>
<td>F</td>
<td>7.897</td>
<td>3.680</td>
<td>5.462</td>
</tr>
</tbody>
</table>

*Note. $n = 2,105$. The luxury hotel market had 13 properties.*

**Upper upscale.**

This category had a total of 2,175 data points that were analyzed. There are a total of 26 hotels that fit into this upper upscale hotel market category. This category had a significant amount of activity, and several independent variables had an impact on each of the three dependent variables.

**ANOVA analysis.**

The ADR variable was impacted by four independent variables having a value of $p \leq 0.001$, as seen in Table 25. The $R$-squared value was -0.147 and the value for $F = 35.167$. The
variable of value had a $\beta = -0.594$ and a value for $t = -13.655$. Staff was statistically significant with a $\beta = 0.275$ and a value for $t = 5.847$. Also the variable of overall was statistically significant, with a $\beta = 0.316$ and a $\beta = 4.765$, and location showed a $\beta = 0.088$ and a value for $t = 3.299$. Additionally, sleep also provided a significant statistical impact with a $p = 0.021$ and a $\beta = 0.092$. Cleanliness and room had no statistical impact on ADR for the upper upscale market.

The occupancy percentage, as outlined in Table 25, provided an R-squared value of 0.067 and a value for $F = 14.698$. In addition, there are two variables that each had a value for $p \leq 0.001$. Value was the first of these variables, with a $\beta = -0.396$ and a value for $t = -8.709$. Location was the second, with a $\beta = 0.098$ and a value for $t = 3.511$. In addition to these, sleep had a value of $p = 0.005$ and a $\beta = 0.118$. Overall had a value of $p = 0.007$ and a $\beta = 0.189$. Finally, room had a value of $p = 0.020$ and a $\beta = -0.104$. Staff and cleanliness had no significant impact on occupancy in the upper upscale market.

RevPar had four variables with a $p \leq 0.001$, while it had an R-squared value of 0.124 and a value for $F = 28.827$, as displayed in Table 25. First was value, with a $\beta = -0.576$ and a value for $t = -13.060$. Second was staff, with a $\beta = -0.223$ and a value for $t = 4.672$. Next was overall, with a $\beta = 0.302$ and a value for $t = 4.487$. Finally, location had a $\beta = 0.112$ and a value for $t = 4.130$. In addition, sleep had a $p = 0.004$ and a $\beta = 0.118$, and cleanliness had a value for $p = 0.054$ and a $\beta = -0.087$. Room was the only variable in the category that failed to produce a statistically significant impact on RevPar in the upper upscale market.

**Upscale.**

This category had a total of 1,010 cases that were analyzed. There are eight hotels that fit into this upscale hotel market category.
Table 25. Standardized Coefficients of the Dependent Variables for Upper Upscale Hotel Market

<table>
<thead>
<tr>
<th></th>
<th>ADR</th>
<th>OCC</th>
<th>RevPar</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$\beta$</td>
<td>$t$</td>
<td>$p$</td>
</tr>
<tr>
<td>Cleanliness</td>
<td>-.077</td>
<td>-1.738</td>
<td>.082</td>
</tr>
<tr>
<td>Location</td>
<td>.088</td>
<td>3.299</td>
<td>.001</td>
</tr>
<tr>
<td>Room</td>
<td>.059</td>
<td>1.379</td>
<td>.168</td>
</tr>
<tr>
<td>Sleep</td>
<td>.092</td>
<td>2.316</td>
<td>.021</td>
</tr>
<tr>
<td>Staff</td>
<td>.275</td>
<td>5.847</td>
<td>.000</td>
</tr>
<tr>
<td>Value</td>
<td>-.594</td>
<td>-13.655</td>
<td>.000</td>
</tr>
<tr>
<td>Overall</td>
<td>.316</td>
<td>4.765</td>
<td>.000</td>
</tr>
</tbody>
</table>

$R^2$ | .147 | .067 | .124 |
F     | 35.167 | 14.698 | 28.827 |

*Note. $n = 2,175$. A total of 26 hotels were in the upper upscale hotel market.*

ANOVA analysis.

The ADR dependent variable, as displayed in Table 26, produced an $R$-squared value of 0.133 and a value of $F = 61.815$, along with three independent variables with a $p \leq 0.001$. First was the value variable, with a $\beta = -0.436$ and a value for $t = -14.949$. Second was room, with a $\beta = 0.188$ and a value for $t = 5.237$. Finally, overall had a $\beta = 0.198$ and a value for $t = 3.922$. Of the remaining variables, staff provided a $p = 0.002$ and a $\beta = 0.106$. Both sleep and location had a value for $p = 0.015$; Sleep had a $\beta = 0.079$ and a value for $t = 2.434$, while location had a $\beta = 0.052$ and a value for $t = 2.427$. Cleanliness was the only variable not to have a significant impact on ADR in the upscale market.
Table 26. Standardized Coefficients of the Dependent Variables for Upscale Hotel Market

<table>
<thead>
<tr>
<th></th>
<th>ADR</th>
<th>OCC</th>
<th>RevPar</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$\beta$</td>
<td>$t$</td>
<td>$p$</td>
</tr>
<tr>
<td>Cleanliness</td>
<td>.036</td>
<td>1.030</td>
<td>.303</td>
</tr>
<tr>
<td>Location</td>
<td>.052</td>
<td>2.427</td>
<td>.015</td>
</tr>
<tr>
<td>Room</td>
<td>.188</td>
<td>5.237</td>
<td>.000</td>
</tr>
<tr>
<td>Staff</td>
<td>.106</td>
<td>3.103</td>
<td>.002</td>
</tr>
<tr>
<td>Value</td>
<td>-.436</td>
<td>-14.949</td>
<td>.000</td>
</tr>
<tr>
<td>Overall</td>
<td>.198</td>
<td>3.922</td>
<td>.000</td>
</tr>
</tbody>
</table>

$R^2$ | .133 | .033 | .104 |

F | 61.815 | 13.966 | 46.678 |

*Note. n = 1,010. The upscale hotel market had eight properties.*

Occupancy only had two independent variables, both with a $p \leq 0.001$, that had a significant statistical impact; they had an R-squared value of 0.033 and a value for $F = 13.966$, as displayed in Table 26. First was value with a $\beta = -0.199$ and a value for $t = -6.462$. Location had a $\beta = 0.077$ and a value for $t = 3.450$. Overall, cleanliness, sleep, staff, and room had no statistical impact on occupancy for the upscale market of hotels.

The final dependent variable RevPar, as seen in Table 26, had all but one variable with a significant statistical impact in the upscale market. It provided an R-squared value of 0.104 and a value for $F = 46.678$. Three independent variables had the greatest statistical impact, with a $p \leq 0.001$. First was value, with a $\beta = -0.437$ and a value for $t = -14.750$. Second was room with at $\beta = 0.144$ and a value for $t = 3.957$. Finally, location had a $\beta = 0.078$ and a value for $t = 3.602$. In addition, overall had a value for $p = 0.003$ and a $\beta = 0.152$. Staff had a value of $p = 0.004$ and
a $\beta = 0.101$. Sleep had a value for $p = 0.028$ and a $\beta = 0.072$. Cleanliness had no statistical impact on RevPar in the upscale market of hotels.

**Upper midscale.**

This category had a total of 458 cases that were analyzed. There were six hotels that fit into the midscale hotel market category.

*ANOVA analysis.*

The ADR was impacted by many variables, as outlined in Table 27, providing an R-squared value of 0.224 and a value for $F = 11.578$. Both overall and staff provided a significant statistical impact on ADR, with a $p \leq 0.001$. Overall had a $\beta = -0.644$ and a value for $t = -5.165$, while staff had a $\beta = 0.483$ and a value for $t = 4.888$. Next was location, with a value for $p = 0.007$ and a $\beta = -0.194$. Finally was the room variable, with a value for $p = 0.048$ and a $\beta = 0.223$. Cleanliness, value, and sleep had no statistical impact on ADR in the upper midscale market.

The occupancy, which provided an R-squared value of 0.176 and value for $F = 8.515$, was impacted by two variables, as seen in Table 27. The variable of overall had an impact with a value of $p \leq 0.001$ and a $\beta = -0.539$. Staff was the second variable, with a $p = 0.014$ and a $\beta = 0.251$. Room, sleep, location, value, and cleanliness had no statistical impact on occupancy for the upper midscale market of hotels.

Finally, as seen in Table 27, the RevPar was most impacted by two variables of equal significance at $p \leq 0.001$, while there was an R-squared value of 0.201 and a value for $F = 10.044$. Overall had a $\beta = -0.630$ and a value for $t = -4.971$, and staff had a $\beta = 0.413$ and a value for $t = 4.122$. Location, cleanliness, value, sleep, and room had no statistical impact on RevPar for the upper midscale hotel market.
Table 27. Standardized Coefficients of the Dependent Variables for Upper Midscale Hotel Market

<table>
<thead>
<tr>
<th></th>
<th>ADR</th>
<th>OCC</th>
<th>RevPar</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$\beta$</td>
<td>$t$</td>
<td>$p$</td>
</tr>
<tr>
<td>Cleanliness</td>
<td>-.190</td>
<td>-1.901</td>
<td>.058</td>
</tr>
<tr>
<td>Location</td>
<td>-.194</td>
<td>-2.727</td>
<td>.007</td>
</tr>
<tr>
<td>Room</td>
<td>.223</td>
<td>1.989</td>
<td>.048</td>
</tr>
<tr>
<td>Sleep</td>
<td>.086</td>
<td>.952</td>
<td>.342</td>
</tr>
<tr>
<td>Staff</td>
<td>.483</td>
<td>4.888</td>
<td>.000</td>
</tr>
<tr>
<td>Value</td>
<td>-.104</td>
<td>-1.425</td>
<td>.155</td>
</tr>
<tr>
<td>Overall</td>
<td>-.644</td>
<td>-5.165</td>
<td>.000</td>
</tr>
<tr>
<td>$R^2$</td>
<td>.224</td>
<td>.000</td>
<td>.176</td>
</tr>
<tr>
<td>$F$</td>
<td>11.578</td>
<td>8.515</td>
<td>10.044</td>
</tr>
</tbody>
</table>

Note: $n = 458$. There are six hotels in the upper midscale market.

**Midscale.**

This category had a total of 89 cases that were analyzed. Only one hotel fit into the midscale hotel market category. Each dependent variable was only impacted by one independent variable with statistical significance.

**ANOVA analysis.**

The ADR category, as displayed in Table 28, had an R-squared value of 0.237 and a value for $F = 1.913$. The only variable to provide statistical significance was value, with a $p = 0.009$ and a $\beta = -0.919$. Staff, location, cleanliness, sleep, room, and overall had no statistical impact on ADR in the midscale market of hotels.
Table 28. Standardized Coefficients of the Dependent Variables for Midscale Hotel Market

<table>
<thead>
<tr>
<th></th>
<th>ADR</th>
<th>OCC</th>
<th>RevPar</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$\beta$</td>
<td>$t$</td>
<td>$p$</td>
</tr>
<tr>
<td>Cleanliness</td>
<td>-.164</td>
<td>-.566</td>
<td>.575</td>
</tr>
<tr>
<td>Location</td>
<td>.153</td>
<td>.886</td>
<td>.381</td>
</tr>
<tr>
<td>Room</td>
<td>.044</td>
<td>.146</td>
<td>.884</td>
</tr>
<tr>
<td>Sleep</td>
<td>.108</td>
<td>.380</td>
<td>.706</td>
</tr>
<tr>
<td>Staff</td>
<td>.654</td>
<td>1.911</td>
<td>.063</td>
</tr>
<tr>
<td>Value</td>
<td>-.919</td>
<td>-2.732</td>
<td>.009</td>
</tr>
<tr>
<td>Overall</td>
<td>.009</td>
<td>.020</td>
<td>.984</td>
</tr>
<tr>
<td>$R^2$</td>
<td>.237</td>
<td></td>
<td></td>
</tr>
<tr>
<td>$F$</td>
<td>1.913</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note. $n = 89$. There was one hotel in the midscale market.

The occupancy, as seen in Table 28, had an R-squared value of 0.262 and a value for $F = 2.181$. The variable to provide a significant statistical impact was location, with a $p = 0.054$ and a $\beta = 0.337$. Value, cleanliness, room, staff, overall, and sleep had no statistical impact on occupancy for this market.

Finally, the RevPar, as displayed in Table 28, had an R-squared value of 0.248 and a value for $F = 2.028$. Similar to ADR, the only variable to produce statistical significance was value, with a $p = 0.019$ and a $\beta = -0.815$. Location, staff, cleanliness, room, sleep, and overall had no statistical impact on RevPar in the category of midscale hotels.

Economy.

This category had a total of zero cases, as no hotels fit into this category; hence, no data was available to be analyzed.
**Market summary.**

The summary for the market category can be seen in Table 29. Value is the most frequent of attributes, followed by location and overall. The midscale category contained the fewest variables to produce an impact on the dependent variables.

Table 29. Market Summary of Variable Significance

<table>
<thead>
<tr>
<th></th>
<th>ADR</th>
<th>OCC</th>
<th>RevPar</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Luxury</strong></td>
<td>Location</td>
<td>Room</td>
<td>Location</td>
</tr>
<tr>
<td></td>
<td>Value</td>
<td>Sleep</td>
<td>Room</td>
</tr>
<tr>
<td><strong>Upper Upscale</strong></td>
<td>Value</td>
<td>Location</td>
<td>Sleep</td>
</tr>
<tr>
<td></td>
<td>Staff</td>
<td>Overall</td>
<td>Location</td>
</tr>
<tr>
<td></td>
<td>Sleep</td>
<td>Overall</td>
<td>Sleep</td>
</tr>
<tr>
<td><strong>Upscale</strong></td>
<td>Value</td>
<td>Room</td>
<td>Location</td>
</tr>
<tr>
<td></td>
<td>Overall</td>
<td>Location</td>
<td>Overall</td>
</tr>
<tr>
<td></td>
<td>Staff</td>
<td>Overall</td>
<td>Sleep</td>
</tr>
<tr>
<td></td>
<td>Sleep</td>
<td>Staff</td>
<td>Cleanliness</td>
</tr>
<tr>
<td><strong>Upper Midscale</strong></td>
<td>Overall</td>
<td>Staff</td>
<td>Overall</td>
</tr>
<tr>
<td><strong>Midscale</strong></td>
<td>Value</td>
<td>Location</td>
<td>Value</td>
</tr>
</tbody>
</table>

*Note.* Independent variables in italics represent a negative relationship, while standard typeset indicates a positive relationship.
Size segmentation.

The hotels were divided into various sizes, as defined by STR. STR segments the size category of hotels into five different room volumes; (1) less than 75 rooms, (2) 75-149 rooms, (3) 150-299 rooms, (4) 300-500 rooms, and (5) greater than 500 rooms. There were a total of 3,131 cases analyzed for the size of hotels. Table 30 depicts the descriptive statistics for the size of the hotel. The smallest category was one hotel with less than 75 rooms, representing only 1.8% of the data set. The next category of hotel, 75-149 rooms, was represented by 11 hotels, or 20% of the market. The largest category, containing 23 hotels or 41.8% of the data set, was the 150-299 rooms category. The second largest category, 300-500 rooms, had 12 hotels with 21.8% of the market share. Finally, there were eight hotels, or 14.5%, that represented locations with greater than 500 rooms.

Table 30. Descriptive Statistics for Size

<table>
<thead>
<tr>
<th>Size</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>≤ 75 Rooms</td>
<td>1</td>
<td>1.8</td>
</tr>
<tr>
<td>75-149</td>
<td>11</td>
<td>20.0</td>
</tr>
<tr>
<td>150-299</td>
<td>23</td>
<td>41.8</td>
</tr>
<tr>
<td>300-500</td>
<td>12</td>
<td>21.8</td>
</tr>
<tr>
<td>&gt;500</td>
<td>8</td>
<td>14.5</td>
</tr>
</tbody>
</table>

Note. There were 55 hotels examined for this study.

Hotels with less than 75 rooms.

In this category of room size, only one hotel existed. There were 71 cases were examined in this category.
ANOVA analysis.

Upon examining the ADR, the R-squared value was 0.106 and the F value = 0.742, as seen in Table 31. There were no variables in this category to provide a significant statistical impact. The occupancy percentage, as displayed in Table 31, provided an R-squared value of 0.266 and the F value = 2.28. The only variable that provided an impact of statistical significance was overall, with a value of $p = 0.005$ and value for $\beta = -0.561$. Value, location, room, cleanliness, sleep, and staff did not provide any statistical impact on occupancy for this size.

Table 31. Standardized Coefficients of the Dependent Variables for Hotels With Less Than 75 Rooms

<table>
<thead>
<tr>
<th></th>
<th>ADR</th>
<th></th>
<th></th>
<th>OCC</th>
<th></th>
<th></th>
<th>RevPar</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$\beta$</td>
<td>$t$</td>
<td>$p$</td>
<td>$\beta$</td>
<td>$t$</td>
<td>$p$</td>
<td>$\beta$</td>
<td>$t$</td>
<td>$p$</td>
</tr>
<tr>
<td>Cleanliness</td>
<td>.022</td>
<td>.087</td>
<td>.931</td>
<td>.046</td>
<td>.198</td>
<td>.844</td>
<td>.034</td>
<td>.141</td>
<td>.889</td>
</tr>
<tr>
<td>Location</td>
<td>.026</td>
<td>.125</td>
<td>.901</td>
<td>-.200</td>
<td>-1.039</td>
<td>.305</td>
<td>-.117</td>
<td>-.583</td>
<td>.563</td>
</tr>
<tr>
<td>Room</td>
<td>-.088</td>
<td>-.331</td>
<td>.742</td>
<td>-.141</td>
<td>-.586</td>
<td>.561</td>
<td>-.111</td>
<td>-.443</td>
<td>.660</td>
</tr>
<tr>
<td>Sleep</td>
<td>-.012</td>
<td>-.047</td>
<td>.962</td>
<td>-.036</td>
<td>-.163</td>
<td>.871</td>
<td>-.044</td>
<td>-.191</td>
<td>.849</td>
</tr>
<tr>
<td>Staff</td>
<td>-.074</td>
<td>-.338</td>
<td>.737</td>
<td>-.004</td>
<td>-.018</td>
<td>.986</td>
<td>-.022</td>
<td>-.108</td>
<td>.914</td>
</tr>
<tr>
<td>Value</td>
<td>.052</td>
<td>.225</td>
<td>.823</td>
<td>.286</td>
<td>1.370</td>
<td>.178</td>
<td>.212</td>
<td>.978</td>
<td>.334</td>
</tr>
<tr>
<td>Overall</td>
<td>-.275</td>
<td>-1.327</td>
<td>.191</td>
<td>-.561</td>
<td>-2.988</td>
<td>.005</td>
<td>-.478</td>
<td>-2.447</td>
<td>.018</td>
</tr>
<tr>
<td>$R^2$</td>
<td>.106</td>
<td></td>
<td></td>
<td>.266</td>
<td></td>
<td></td>
<td>.207</td>
<td></td>
<td></td>
</tr>
<tr>
<td>$F$</td>
<td>.742</td>
<td></td>
<td></td>
<td>2.280</td>
<td></td>
<td></td>
<td>1.642</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Note. n = 71. One hotel was in this size category.*
Finally, the RevPar, as displayed in Table 31, had an R-squared value of 0.207 and the $F$ value = 1.642. For this size, the only variable to provide a statistical impact was overall, with a value for $p = 0.018$ and a $\beta = -0.478$. Value, location, room, sleep, cleanliness, and staff provided no statistical impact on RevPar for this hotel size.

**Hotels with 75-149 rooms.**

In this category of room size, 11 hotels existed. There were 716 cases examined in this category.

**ANOVA analysis.**

Upon examining the ADR, as displayed in Table 32, the R-squared value was 0.118 and the $F$ value = 10.306. Value had a significant statistical impact, with a value for $p \leq 0.001$. Room had an impact, with a $p = 0.002$ and $\beta = 0.259$, and sleep, which had a $p = 0.004$ and $\beta = 0.228$. Location, staff, overall, and cleanliness had no statistical impact on ADR for this size category.

The occupancy percentage, as seen in Table 32, provided an R-squared value of 0.038 and $F$ value = 3.087. Value provided statistical significance toward occupancy, with a value for $p = 0.008$ and $\beta = -0.192$. Following that, sleep contained the next greatest statistical significance, with a $p = 0.013$, and $\beta = 0.202$, followed by staff, with a $p = 0.018$ and $\beta = 0.185$, and room, with a $p = 0.040$ and $\beta = -0.182$. Cleanliness, overall, and location had no statistical impact on occupancy for this size hotel.

Finally, the RevPar, as displayed in Table 32, had an R-squared value of 0.108 and an $F$ value = 9.334. Value has a significant statistical impact, with a $p \leq 0.001$ and $\beta = -0.544$, as well as the variable sleep, with a $p = 0.002$ and $\beta = 0.243$. Finally, room provided the final
variable of statistical significance, with a \( p = 0.041 \) and \( \beta = 0.174 \). Location, staff, overall, and cleanliness provided no statistical impact to RevPar for this hotel size category.

Table 32. Standardized Coefficients of the Dependent Variables for Hotels 75-149 Rooms

<table>
<thead>
<tr>
<th></th>
<th>ADR</th>
<th></th>
<th></th>
<th>OCC</th>
<th></th>
<th></th>
<th>RevPar</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>( \beta )</td>
<td>( t )</td>
<td>( p )</td>
<td>( \beta )</td>
<td>( t )</td>
<td>( p )</td>
<td>( \beta )</td>
<td>( t )</td>
<td>( p )</td>
</tr>
<tr>
<td>Cleanliness</td>
<td>0.024</td>
<td>0.281</td>
<td>0.779</td>
<td>-0.033</td>
<td>-0.372</td>
<td>0.710</td>
<td>0.019</td>
<td>0.157</td>
<td>0.875</td>
</tr>
<tr>
<td>Location</td>
<td>-0.104</td>
<td>-1.780</td>
<td>0.076</td>
<td>-0.009</td>
<td>-0.142</td>
<td>0.887</td>
<td>0.079</td>
<td>-1.348</td>
<td>0.178</td>
</tr>
<tr>
<td>Room</td>
<td>0.259</td>
<td>3.060</td>
<td>0.002</td>
<td>-0.182</td>
<td>-2.059</td>
<td>0.040</td>
<td>0.174</td>
<td>2.052</td>
<td>0.041</td>
</tr>
<tr>
<td>Sleep</td>
<td>0.228</td>
<td>2.918</td>
<td>0.004</td>
<td>0.202</td>
<td>2.484</td>
<td>0.013</td>
<td>0.243</td>
<td>3.102</td>
<td>0.002</td>
</tr>
<tr>
<td>Staff</td>
<td>0.065</td>
<td>0.876</td>
<td>0.382</td>
<td>0.185</td>
<td>2.381</td>
<td>0.018</td>
<td>0.094</td>
<td>1.254</td>
<td>0.210</td>
</tr>
<tr>
<td>Value</td>
<td>-0.545</td>
<td>-7.862</td>
<td>0.000</td>
<td>-0.192</td>
<td>-2.657</td>
<td>0.008</td>
<td>-0.544</td>
<td>-7.808</td>
<td>0.000</td>
</tr>
<tr>
<td>Overall</td>
<td>0.077</td>
<td>0.654</td>
<td>0.513</td>
<td>-0.026</td>
<td>-2.210</td>
<td>0.834</td>
<td>0.068</td>
<td>0.575</td>
<td>0.566</td>
</tr>
<tr>
<td>( R^2 )</td>
<td>0.118</td>
<td>0.038</td>
<td></td>
<td>0.108</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>( F )</td>
<td>10.306</td>
<td>3.087</td>
<td>9.334</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Note: \( n = 716 \). There were 11 hotels with between 75-149 rooms.*

*Hotels with 150-299 rooms.*

In this third category of room size, 23 hotels existed. There were 1,461 cases examined in this category.

*ANOVA analysis.*

Upon examining the ADR, as identified in Table 33, the R-squared value was 0.247 and \( F \) value = 50.084. Five out of the seven variables provided a statistically significant impact upon ADR. The first two both had a value of \( p \leq 0.001 \): value, with a \( \beta = -0.522 \) and value of \( t = -11.840 \), and location, with a \( \beta = 0.290 \) and a value of \( t = 8.331 \). These were followed by room,
with a $p = 0.025$ and $\beta = 0.126$, sleep, with a $p = 0.033$ and $\beta = 0.105$, and overall, with a $p = 0.040$ and $\beta = 0.162$. Cleanliness and staff had no statistical impact on ADR.

Table 33. Standardized Coefficients of the Dependent Variables for Hotels 150-299 Rooms

<table>
<thead>
<tr>
<th></th>
<th>ADR</th>
<th>OCC</th>
<th>RevPar</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$\beta$</td>
<td>$t$</td>
<td>$p$</td>
</tr>
<tr>
<td>Cleanliness</td>
<td>.089</td>
<td>1.629</td>
<td>.104</td>
</tr>
<tr>
<td>Location</td>
<td>.290</td>
<td>8.331</td>
<td>.000</td>
</tr>
<tr>
<td>Room</td>
<td>.126</td>
<td>2.245</td>
<td>.025</td>
</tr>
<tr>
<td>Sleep</td>
<td>.105</td>
<td>2.129</td>
<td>.033</td>
</tr>
<tr>
<td>Staff</td>
<td>.061</td>
<td>1.077</td>
<td>.282</td>
</tr>
<tr>
<td>Value</td>
<td>-.522</td>
<td>-11.840</td>
<td>.000</td>
</tr>
<tr>
<td>Overall</td>
<td>.162</td>
<td>2.052</td>
<td>.040</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>$R^2$</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
</table>
| The occupancy percentage, as seen in Table 33, provided an $R^2$ value of $0.044$ and an $F$ value $= 7.011$. Cleanliness provided a statistically significant impact on occupancy, with a $p = 0.002$ and a value for $\beta = 0.197$. Sleep followed, with a $p = 0.014$ and a $\beta = -0.136$. Next was overall, with a $p = 0.016$ and a $\beta = -0.215$. Finally, value had a $p = 0.023$ and a $\beta = -0.113$. Location, staff, and room had no statistical impact on ADR for this hotel size.

Finally, the RevPar has an $R^2$ value of $0.172$ and an $F$ value $= 31.741$, as displayed in Table 33. Value and location had a significant statistical impact on RevPar, each with a value of $p \leq 0.001$. Value had a $\beta = -0.471$ and a value for $t = -10.178$. Location had a $\beta = 0.257$ and a value for $t = 7.035$. The other variable to provide a statistical impact on RevPar
was cleanliness, with a $p = 0.045$ and a $\beta = 0.116$. Room, staff, overall, and sleep had no statistical impact on RevPar for this size of hotel category.

**Hotels with 300-500 rooms.**

The fourth category of room size has 12 hotels. There were 926 cases examined in this category.

*ANOVA analysis.*

Upon examining the ADR, as displayed in Table 34, the R-squared value was determined to be 0.258 with an $F$ value = 33.695. Both value and location provided a significant statistical impact on ADR, with a $p \leq 0.001$. Value had a $\beta = -0.533$ and a value for $t = -9.686$; Location had a $\beta = 0.173$ and a value for $t = 4.575$. These were followed by overall, with a $p = 0.002$ and a $\beta = 0.297$. Staff also had a statistical impact on ADR with a value for $p = 0.004$ and a $\beta = 0.164$. Cleanliness was the last variable to show any a statistical impact, with a $p = 0.021$ and a $\beta = 0.148$. Room and sleep had no significant statistical impact on ADR for this category of hotel size.

As displayed in Table 34, the occupancy percentage provides an R-squared value of 0.068 with an $F$ value = 7.028. Value had a statistically significant impact on occupancy at this hotel size, with a $p \leq 0.001$ and $\beta = -0.274$. This was followed by staff, with a value for $p = 0.005$ and a $\beta = -0.180$. The final variable to provide a statistical impact on this size category for occupancy was location, with a $p = 0.017$ and a $\beta = 0.101$. Sleep, overall, room, and cleanliness provided no statistical impact on occupancy for this category of hotel size.

Finally, as displayed in Table 34, the RevPar had an R-squared value of 0.168 and $F$ value = 19.585. Value and location both had a statistically significant impact on RevPar, with a $p \leq 0.001$. Value had a $\beta = -0.494$ and a value for $t = -8.477$; location had a $\beta = 0.176$ and a
value of $t = 4.395$. The only other variable to provide a statistical impact on RevPar was overall, with a $p = 0.008$ and a $\beta = 0.264$. Cleanliness, sleep, room, and staff had no statistical impact on RevPar for this category of hotel size.

Table 34. Standardized Coefficients of the Dependent Variables for Hotels 300-500 Rooms

<table>
<thead>
<tr>
<th></th>
<th>ADR</th>
<th>OCC</th>
<th>RevPar</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$\beta$</td>
<td>$t$</td>
<td>$p$</td>
</tr>
<tr>
<td>Cleanliness</td>
<td>.148</td>
<td>2.308</td>
<td>.021</td>
</tr>
<tr>
<td>Location</td>
<td>.173</td>
<td>4.575</td>
<td>.000</td>
</tr>
<tr>
<td>Room</td>
<td>.120</td>
<td>1.777</td>
<td>.076</td>
</tr>
<tr>
<td>Sleep</td>
<td>.050</td>
<td>.803</td>
<td>.422</td>
</tr>
<tr>
<td>Staff</td>
<td>.164</td>
<td>2.856</td>
<td>.004</td>
</tr>
<tr>
<td>Value</td>
<td>-.533</td>
<td>-9.686</td>
<td>.000</td>
</tr>
<tr>
<td>Overall</td>
<td>.297</td>
<td>3.165</td>
<td>.002</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>(R^2)</th>
<th></th>
<th>(F)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Cleanliness</td>
<td>.258</td>
<td>.068</td>
<td>33.695</td>
<td>7.028</td>
</tr>
<tr>
<td>Location</td>
<td></td>
<td></td>
<td>33.695</td>
<td>7.028</td>
</tr>
<tr>
<td>Room</td>
<td></td>
<td></td>
<td>33.695</td>
<td>7.028</td>
</tr>
<tr>
<td>Sleep</td>
<td></td>
<td></td>
<td>33.695</td>
<td>7.028</td>
</tr>
<tr>
<td>Staff</td>
<td></td>
<td></td>
<td>33.695</td>
<td>7.028</td>
</tr>
<tr>
<td>Value</td>
<td></td>
<td></td>
<td>33.695</td>
<td>7.028</td>
</tr>
<tr>
<td>Overall</td>
<td></td>
<td></td>
<td>33.695</td>
<td>7.028</td>
</tr>
</tbody>
</table>

Note. \(n = 926\). The 300-500 room size had 12 hotels.

Hotels with greater than 500 rooms.

The final category of room size contained eight hotels. There were 497 cases examined in this category.

ANOVA analysis.

Upon examining the ADR, as displayed in Table 35, the R-squared value was 0.212 and the \(F\) value = 13.896.
Table 35. Standardized Coefficients of the Dependent Variables for Hotels With Greater Than 500 Rooms

<table>
<thead>
<tr>
<th></th>
<th>ADR</th>
<th>OCC</th>
<th>RevPar</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$\beta$</td>
<td>$t$</td>
<td>$p$</td>
</tr>
<tr>
<td>Cleanliness</td>
<td>.047</td>
<td>.540</td>
<td>.589</td>
</tr>
<tr>
<td>Location</td>
<td>.115</td>
<td>2.243</td>
<td>.025</td>
</tr>
<tr>
<td>Room</td>
<td>-.044</td>
<td>-.461</td>
<td>.645</td>
</tr>
<tr>
<td>Sleep</td>
<td>.390</td>
<td>4.310</td>
<td>.000</td>
</tr>
<tr>
<td>Staff</td>
<td>.032</td>
<td>.349</td>
<td>.727</td>
</tr>
<tr>
<td>Value</td>
<td>-.598</td>
<td>-7.660</td>
<td>.000</td>
</tr>
<tr>
<td>Overall</td>
<td>.290</td>
<td>2.117</td>
<td>.030</td>
</tr>
<tr>
<td>$R^2$</td>
<td>.212</td>
<td>.132</td>
<td>.175</td>
</tr>
<tr>
<td>$F$</td>
<td>13.896</td>
<td>7.860</td>
<td>10.916</td>
</tr>
</tbody>
</table>

Note. $n = 497$. There were eight hotels with more than 500 rooms.

Value and sleep both had a significant impact on ADR, with a value for $p \leq 0.001$.

Value had a $\beta = -0.598$ and a value for $t = -7.660$, while sleep had a $\beta = 0.039$ and a value for $t = 4.310$. These were followed by overall, with a $p = 0.030$ and a $\beta = 0.290$. Location provided the last variable of statistical impact, with a $p = 0.025$ and a $\beta = 0.115$. Cleanliness, room, and staff had no statistical impact on ADR for this largest category of hotel size.

Table 35 displays the occupancy percentage, which provided an R-squared value of 0.132 and $F$ value = 7.86. Once again, value and location were the variables with statistical significance in relation to occupancy, with a $p \leq 0.001$. Value had a $\beta = -0.449$ and value of $t = -5.486$, while location had a $\beta = 0.206$ and a value of $t = 3.835$. These variables were followed by room, with a $p = 0.002$ and a $\beta = -0.308$. Next of statistical significance was sleep, with a value of $p = 0.013$ and a $\beta = 0.237$. Overall was the last variable with statistical significance,
having a value of $p = 0.030$ and a $\beta = 0.304$. Staff and cleanliness displayed no statistical impact on occupancy for this large category of hotel size.

Finally, Table 35 displays the RevPar, which had an R-squared value of 0.175 and $F$ value = 10.916. RevPar had three variables with a significant statistical impact, each having a value of $p \leq 0.001$. Value was first, with a $\beta = -0.587$ and a value for $t = -7.348$. This was followed by sleep, with a $\beta = 0.373$ and a value for $t = 4.035$. Finally, location had a $\beta = 0.188$ and a value of $t = 3.578$. The only other variable to provide any significant statistical impact on RevPar was overall, with a value for $p = 0.020$ and a $\beta = 0.317$. Room, cleanliness, and staff had no statistical impact on RevPar for this largest category.

**Size summary.**

The summary of hotels by size category can be seen in Table 36, in which the independent variables of greatest statistical significance are represented in order. With the exception of the one hotel in the under 75-size category, value is a consistently significant statistical factor that influences revenue.

**Operation segmentation.**

The final category that the hotels were divided into was based on the style of operation. STR categorized the hotels into three different operations: (1) chain-owned and/or managed, (2) franchised, and (3) independent. In this segmentation of the data, there were 3,933 cases examined. The descriptive statistics for the operation category of this study can be seen in Table 37. The chain and/or managed hotel category was the largest, with 27 hotels or 49.1% of the market—which makes sense for a major city like Boston. The franchise category, with 15 hotels or 27.3% of the market, followed this. Finally, the smallest category was independents, with 13 hotels or 23.6% of the data set for this segment of the study.
Table 36. Size Summary of Variable Significance

<table>
<thead>
<tr>
<th>Rooms</th>
<th>ADR</th>
<th>OCC</th>
<th>RevPar</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; 75</td>
<td>-</td>
<td>Overall</td>
<td>Overall</td>
</tr>
<tr>
<td>75-149</td>
<td>Value Room</td>
<td>Value Sleep</td>
<td>Value Sleep</td>
</tr>
<tr>
<td></td>
<td>Room Sleep</td>
<td>Staff Room</td>
<td>Room</td>
</tr>
<tr>
<td>150-299</td>
<td>Value Location</td>
<td>Cleanliness Sleep</td>
<td>Value Location</td>
</tr>
<tr>
<td></td>
<td>Overall Room Sleep</td>
<td>Overall Value</td>
<td>Cleanliness</td>
</tr>
<tr>
<td>300-500</td>
<td>Value Location</td>
<td>Value Staff Location</td>
<td>Value Location</td>
</tr>
<tr>
<td></td>
<td>Overall Staff Location</td>
<td>Overall Value</td>
<td>Overall</td>
</tr>
<tr>
<td>&gt; 500</td>
<td>Value Sleep Overall Location</td>
<td>Value Sleep Location</td>
<td></td>
</tr>
</tbody>
</table>

*Note.* Independent variables in italics represent a negative relationship, while standard typeset indicates a positive relationship. “-” indicates that there is no variable with statistical significance.
Table 37. Descriptive Statistics for Operation

<table>
<thead>
<tr>
<th>Operation</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chain/Managed</td>
<td>27</td>
<td>49.1</td>
</tr>
<tr>
<td>Franchised</td>
<td>15</td>
<td>27.3</td>
</tr>
<tr>
<td>Independent</td>
<td>13</td>
<td>23.6</td>
</tr>
</tbody>
</table>

Note. There were a total of 55 hotels for this study.

**Chain-owned and/or managed.**

In this category of operational style, 27 hotels exist. There were 1,948 cases examined in this category.

*ANOVA analysis.*

In this category of the operation segment, the ADR, as identified in Table 38, provided the R-squared value of 0.077 and the value for $F = 17.167$. This category had five variables that provided a level of significance, four of which had a value of $p \leq 0.001$. In order, value was the first variable with a statistical significance, with a $\beta = -0.284$ and a value for $t = -6.273$. Second was location, with a $\beta = -0.153$ and a value for $t = -5.138$. Third was overall, with a $\beta = 0.327$ and a value of $t = 4.460$. Fourth was room, which had a $\beta = 0.211$ and a value of $t = 4.326$. Finally, the last variable to provide statistical significance was cleanliness, with a $\beta = -0.120$ and a value of $t = -2.401$. Staff and sleep had no statistical impact on ADR for this operational segment.

Three variables provided a significant statistical impact on occupancy for the chain-owned and/or managed segment. As seen in Table 38, the R-squared value was 0.058 and the value for $F = 12.623$. The first variable was value, with a $p \leq 0.001$ and a $\beta = -0.311$. This was followed by location, with a $p = 0.002$ and a $\beta = 0.094$. Finally, sleep had a $p = 0.043$ and a $\beta =$.
0.094. The variables overall, room, staff, and location provided no statistical significance for Occupancy.

Table 38. Standardized Coefficients of the Dependent Variables for Chain-Owned and/or Managed Hotels

<table>
<thead>
<tr>
<th></th>
<th>ADR</th>
<th></th>
<th></th>
<th>OCC</th>
<th></th>
<th></th>
<th>RevPar</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>β</td>
<td>t</td>
<td>p</td>
<td>β</td>
<td>t</td>
<td>p</td>
<td>β</td>
<td>t</td>
<td>p</td>
<td>β</td>
<td>t</td>
<td>p</td>
</tr>
<tr>
<td>Cleanliness</td>
<td>-.120</td>
<td>-2.401</td>
<td>.016</td>
<td>-.025</td>
<td>-4.90</td>
<td>.624</td>
<td>-.103</td>
<td>-2.049</td>
<td>.041</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Location</td>
<td>-.153</td>
<td>-5.138</td>
<td>.000</td>
<td>.093</td>
<td>3.084</td>
<td>.002</td>
<td>-.086</td>
<td>-2.883</td>
<td>.004</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Room</td>
<td>.211</td>
<td>4.326</td>
<td>.000</td>
<td>-.058</td>
<td>-1.174</td>
<td>.241</td>
<td>.153</td>
<td>3.113</td>
<td>.002</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sleep</td>
<td>.039</td>
<td>.861</td>
<td>.389</td>
<td>.094</td>
<td>2.026</td>
<td>.043</td>
<td>.061</td>
<td>1.312</td>
<td>.190</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Staff</td>
<td>.042</td>
<td>.916</td>
<td>.360</td>
<td>-.051</td>
<td>-1.098</td>
<td>.272</td>
<td>.021</td>
<td>.454</td>
<td>.650</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value</td>
<td>-.284</td>
<td>-6.273</td>
<td>.000</td>
<td>-.311</td>
<td>-6.798</td>
<td>.000</td>
<td>-.365</td>
<td>-7.977</td>
<td>.000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Overall</td>
<td>.327</td>
<td>4.460</td>
<td>.000</td>
<td>.122</td>
<td>1.647</td>
<td>.100</td>
<td>.319</td>
<td>4.308</td>
<td>.000</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

R²  | .077 |        |          | .058 |        |          | .061 |        |          |
F    | 17.167 | 12.623 | 13.337  |       |        |          |       |        |          |

*Note. n = 1,948. There were 27 hotels in the chain-owned and/or managed category.*

Finally, as displayed in Table 38, five variables displayed significant influence over RevPar in this segment. The R-squared value was 0.061 and the value for F = 13.337. Value had a \( p \leq 0.001 \), a \( \beta = -0.365 \), and a value for \( t = -7.977 \). Overall had a \( \beta = 0.319 \) and a value for \( t = 4.308 \). The next variable was room, with a \( p = 0.002 \) and a \( \beta = 0.153 \). Location had a \( p = 0.004 \) and a \( \beta = -0.086 \). The final variable with statistical impact was cleanliness, which produced a value of \( p = 0.041 \) and a \( \beta = -0.103 \). Both sleep and staff provided no level of statistical significance in relation to RevPar.
Franchised.

This category of operational style incorporated 15 hotels. There were 1,064 cases examined in this category.

ANOVA analysis.

For this category, Table 39 indicates that ADR had an R-squared value of 0.209 with a value for $F = 25.924$. Three variables provided a statistical impact with close levels of significance, all with a $p \leq 0.001$. Location had a value for $\beta = 0.369$ and a value of $t = 8.098$. Value had a $\beta = -0.289$ and a value for $t = -5.495$. Cleanliness, the final variable, showed a value of $\beta = 0.257$ and a value for $t = 4.099$. Room, overall, sleep, and staff had no statistical impact on ADR for the franchised properties.

With regards to occupancy, as illustrated in Table 39, five variables provided a statistical impact, with an R-squared value of 0.051 and value for $F = 5.224$. Value had a $p \leq 0.001$ and a $\beta = -0.184$. Overall had a $p = 0.002$ and a $\beta = -0.306$. Both cleanliness and location had a value of $p = 0.003$. Cleanliness had a $\beta = 0.150$ and a value for $t = 2.179$, while location had a $\beta = 0.109$ and a value for $t = 2.178$. Staff and sleep had no statistically significant impact on occupancy.

RevPar, as seen in Table 39, provided three variables with a strong statistical significance. The R-squared value was 0.163 and the value for $F = 19.145$. The variables of value, location and cleanliness all resulted in a value of $p \leq 0.001$. Of these, value had a statistical significant impact, with a $\beta = -0.276$ and a value of $t = -5.104$. This was followed by location, with a $\beta = 0.324$ and a value for $t = 6.904$. Finally, cleanliness had a $\beta = 0.229$ and a value for $t = 3.543$. The last variable in the RevPar influenced categories with statistical
significance was room, with a \( p = 0.035 \) and a \( \beta = 0.154 \). Overall, staff, and sleep had no impact on RevPar.

Table 39. Standardized Coefficients of the Dependent Variables for Franchised Hotels

<table>
<thead>
<tr>
<th></th>
<th>ADR</th>
<th>OCC</th>
<th>RevPar</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>( \beta )</td>
<td>( t )</td>
<td>( p )</td>
</tr>
<tr>
<td>Cleanliness</td>
<td>0.257</td>
<td>4.099</td>
<td>0.000</td>
</tr>
<tr>
<td>Location</td>
<td>0.369</td>
<td>8.098</td>
<td>0.000</td>
</tr>
<tr>
<td>Room</td>
<td>0.129</td>
<td>1.830</td>
<td>0.068</td>
</tr>
<tr>
<td>Sleep</td>
<td>-0.060</td>
<td>-1.003</td>
<td>0.316</td>
</tr>
<tr>
<td>Staff</td>
<td>0.038</td>
<td>0.586</td>
<td>0.558</td>
</tr>
<tr>
<td>Value</td>
<td>-0.289</td>
<td>-5.495</td>
<td>0.000</td>
</tr>
<tr>
<td>Overall</td>
<td>-0.111</td>
<td>-1.242</td>
<td>0.215</td>
</tr>
</tbody>
</table>

\( R^2 \)      | 0.209     |          | 0.515     |           | 0.163     |          |           |

\( F \)        | 25.924    |          | 5.224     |           | 19.145    |          |

*Note:* \( n = 1,064 \). There were 15 properties in the franchise hotels category.

**Independent.**

Thirteen hotels comprised the independent category of operational style. There were 921 cases examined in this category.

**ANOVA analysis.**

The ADR category provided an R-squared of 0.348 and a value for \( F = 52.878 \), as shown in Table 40. There were three variables that had high statistical impact on ADR, including value, room, and staff, each with a \( p \leq 0.001 \). Value showed a \( \beta = -0.679 \) and a value for \( t = -12.448 \).
Table 40. Standardized Coefficients of the Dependent Variables for Independent Hotels

<table>
<thead>
<tr>
<th></th>
<th>ADR</th>
<th>OCC</th>
<th>RevPar</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>β</td>
<td>t</td>
<td>p</td>
</tr>
<tr>
<td>Cleanliness</td>
<td>-.163</td>
<td>-2.198</td>
<td>.028</td>
</tr>
<tr>
<td>Location</td>
<td>.032</td>
<td>.825</td>
<td>.410</td>
</tr>
<tr>
<td>Room</td>
<td>.474</td>
<td>6.240</td>
<td>.000</td>
</tr>
<tr>
<td>Sleep</td>
<td>.103</td>
<td>1.554</td>
<td>.121</td>
</tr>
<tr>
<td>Staff</td>
<td>.324</td>
<td>4.293</td>
<td>.000</td>
</tr>
<tr>
<td>Value</td>
<td>-.679</td>
<td>-12.448</td>
<td>.000</td>
</tr>
<tr>
<td>Overall</td>
<td>.277</td>
<td>2.727</td>
<td>.007</td>
</tr>
<tr>
<td>R²</td>
<td>.348</td>
<td></td>
<td>.064</td>
</tr>
<tr>
<td>F</td>
<td>52.878</td>
<td>6.710</td>
<td>25.646</td>
</tr>
</tbody>
</table>

Note. n = 921. There were 13 establishments in the independent hotels category.

Room had a β = 0.474 and value for t = 6.240. Finally, staff had a β = 0.324 and a value for t = 4.293. In addition, overall, with a p = 0.007 and a β = 0.277, also showed a statistical impact. Cleanliness significantly impacted ADR, with a value of p = 0.028 and a β = -0.163. Sleep and location evidenced no impact on ADR in the independent category.

The occupancy of independent hotels, as displayed in Table 40, had an R-squared value of 0.064 and a value of F = 6.710. Staff had a p = 0.006 and a β = 0.249. Value provided a p = 0.007 and a β = -0.017. Finally, room had a value of p = 0.018 and a β = -0.216. Variables with no statistical impact on occupancy included location, overall, cleanliness, and sleep.

With regard to RevPar, the R-squared value was 0.206 and the value for F = 25.646, as identified in Table 40. There were three variables with a statistical impact on RevPar, sharing a value for p ≤ 0.001: value, staff, and room. Value had a β = -0.613 and a value for t = -10.189.
Staff had a $\beta = 0.368$ and a value for $t = 4.420$. Finally, room had a $\beta = 0.305$ and a value for $t = -2.017$. In addition, cleanliness had a value for $p = 0.044$ and a $\beta = -0.165$. Overall, sleep, and location had no statistically significant impact on RevPar.

**Operation segmentation summary.**

The summary for the operation segmentation of this data set can be found in Table 41. Once again, value was one of the influential variables in this study.

Table 41. Operation Segmentation Summary of Variable Significance

<table>
<thead>
<tr>
<th></th>
<th>ADR</th>
<th>OCC</th>
<th>RevPar</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chain owned</td>
<td>Value</td>
<td>Value</td>
<td>Value</td>
</tr>
<tr>
<td>and/or managed</td>
<td>Location</td>
<td>Overall</td>
<td>Overall</td>
</tr>
<tr>
<td></td>
<td>Overall</td>
<td>Location</td>
<td>Location</td>
</tr>
<tr>
<td></td>
<td>Room</td>
<td>Sleep</td>
<td>Cleanliness</td>
</tr>
<tr>
<td></td>
<td>Cleanliness</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Franchised</td>
<td>Value</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Location</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Overall</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Room</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Cleanliness</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Location</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Independent</td>
<td>Value</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Room</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Staff</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Overall</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Cleanliness</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Note.* Independent variables in italics represent a negative relationship, while standard typeset indicates a positive relationship.
Relational Impact to Research Question

This study sought to answer one extensive research question:

(1) To what extent can variation in the dependent variables (i.e., ADR, occupancy, and RevPar) be explained by the independent variables (i.e. cleanliness, location, room, service, staff, value, and overall)?

Ultimately, the research question had to be addressed through a careful categorical breakdown and analysis, with each specific category providing details about the relationships between each dependent variables and the independent variables sourced from TripAdvisor reviews.

Chapter Summary

In this chapter, the research question was measured and tested. The analysis revealed support for statistical significance of the attributes. The next chapter will discuss the statistical results of the analysis in more detail. In addition, both the theoretical and practical implications will be discussed. Finally, the limitations of the study will be examined, and suggestions for future research will be provided.
CHAPTER 5. CONCLUSIONS

Introduction

This chapter summarizes and discusses the major findings of this study. Additionally, this chapter will also explore the implications of the results from both a practical and an academic perspective. It will conclude with an examination of the limitations of this study and suggestions for future research.

Data Description

Secondary data was obtained from two different third party sources. Smith Travel Research (STR) provided the raw supply and demand data for each hotel in the study. TripAdvisor provided the qualitative measures of guest rankings for each hotel in the study. To more comprehensively probe all organizational factors of a hotel, the hotels were then categorized into the various segments used by STR for analysis, including year, price, market, operation, and size. In addition, the American Automobile Association (AAA), which provides a diamond ranking for hotels, also categorized these hotels into the final third-party ranking status.

STR provided the data associated with obtaining an average daily rate (ADR), occupancy percentage, and revenue per available room (RevPar), which were considered the dependent variables. Data encompassed the years 2000 through 2014. TripAdvisor provided the review rankings for the seven independent variables.

For the purposes of this study, the dependent variables were, as previously described, ADR, occupancy, and RevPar. The independent variables were cleanliness, location, overall, room, sleep, staff, and value. To determine the nature and extent of relationships between variables, the data was run with all independent variables against each of the three different dependent variables. It was further segmented for analysis by the various dimensions of
diamond rankings, year, market, price, operation, and size. Within each of those segments, the measurement of statistical significance was individualized for each level of the dependable variable segments.

**Discussion of Findings**

This study provides important contributions to both the academic and hospitality professions: it contributes to academic literature, as no known study has examined the influence that each attribute has on the financial performance of hotels. Therefore, comparisons refer back to the limited research on the satisfaction literature of these variables, in general terms. Within the hospitality industry, the results of this study and the practical application thereof could change the way hoteliers interact with their guests to maximize their own revenue and operational efficiency.

**General summary.**

Overall, when examining the 55 hotels in the Boston area included in this study, the independent variable of value showed a statistically significant impact on all three separate dependent variables of ADR, occupancy, and RevPar. The details of this analysis can be found in Table 2 of Chapter 4. As the value experienced by a guest decreases, it causes a negative impact on the dependent variables. Thus, when the value received by the guest decreases, the ADR, RevPar and the overall occupancy percentage has seen an increase.

In terms of making a statistically significant impact on ADR, the independent variable to focus on is room. To further explicate this relationship—if the guest has a positive satisfaction experience with their room, the hotel has the ability to charge a higher rate, providing the opportunity to earn more revenue and thus a higher ADR as well. As another statistically significant independent variable, the overall rating will also provide a higher ADR. When the
guest is satisfied with the encounters with the hotel staff, that variable too will provide a positive impact on ADR. Both sleep and location have a similar positive statistical impact on ADR; ultimately, however, a guest is looking for a better sleep experience than a more desirable location.

In order to increase the occupancy percentage, the research reflects that a hotel next has to focus on the location after a hotel has successfully met the value expectations of guest. Hence, the better the location of a hotel, the higher its occupancy level will rise. Value and location proved to be the only two drivers to increase occupancy in all of these hotels in the city of Boston.

Finally, in order for a hotel to see a positive increase in RevPar, the room has to be the next target for the guest experience. When the room is considered a pleasure point, the ability to charge an increased rate will occur, resulting in an overall increase in RevPar. Location also exhibits a statistically significant impact upon RevPar within the positive relationship between the two variables. When the location is desirable, it meets the needs of the traveler, and the hotel subsequently has the ability to charge more, providing an increase in RevPar. Overall experience also had a notable positive impact on RevPar illustrating that a guest is seeking a pleasurable enough experience that they will pay more for it. Although it is less pronounced than some of the other variables, the quality of services by the hotel staff can provide a positive impact upon RevPar. Finally, the sleep experience that the guest encounters in a city property is important, as when the guest sleeps well or has the opportunity to do so, they are willing to pay more for the stay.

Again, to conclude, the general experience encountered by a guest, is going to be most impacted by Value, across all of the dependent variables. When a hotel can offer a guest a
memorable experience to influence the value that they feel they received for the money spent, it will afford the hotel the opportunity to charge an increase in rate and obtain a higher occupancy percentage. This ties directly to the literature of previous studies, which have concluded that the price paid for a room is a significant factor in shaping the perceptions of a guest (Mattila & O’Neill, 2003; Matzler et al., 2006; Radojevic et al., 2015a). However, the experience will fail to meet the value expectation of the guest when all of the dependent variables increase, thus destroying a sense of value. In turn, the hotel will lose its market position, as it most likely will find a lower rating for value and an increase of negative reviews, per previous research (Berezina et al., 2016; Mohsin & Lockyer, 2010).

**Yearly analysis.**

Taking the general summary, a step further, the data was analyzed by each year. In almost all categories, Value was the most influential variable every year—with the exception of the independent variable that most affected the occupancy percentage in years 2010 and 2011. The data can be seen in Tables 3 to 8 from the previous chapter.

**Year 2010.**

Table 3 reflected the results for the first year covered in the study, 2010. The ADR variable is the most measurably impacted by value, as a negative influence—meaning that when the ADR has encountered an increase, the value experienced by the guest correspondingly decreases. The second variable was room, which illustrated a positive relationship. When a guest expresses satisfaction with their room experience, the ADR will increase. The final variable in ADR that exhibited statistical significance was overall. Again, as this overall rating increased, so did the ADR for the property. The occupancy category had no statistically significant impact by any of the independent variables for this year. Value was the only variable
to have a statistical impact on RevPar. This negative relationship demonstrated that the Value decreased when the RevPar was increased.

**Year 2011.**

Table 4 reflected the results for the year 2011. Value proved to be the only variable with statistical significance on ADR. Like the relationship in 2010, it was a negative relationship. The occupancy dependent variable for this year was not statistically impacted at all by value. Instead, the variable with the most impact on occupancy percentage was location. This positive relationship indicates that when the guest is pleased with the location of the property, they are willing to pay more for their stay. The other variable to have a statistical impact was the Overall rating. This negative relationship dictates that if a guest rated the hotel experience negatively overall—i.e., designated it with a lower ‘bubble’ rating—it appeared to be directly related to the fact that the ADR was priced higher than the guest felt the experience deserved. Value was the only variable to have a significant statistical impact on RevPar with negative relationship.

**Year 2012.**

Table 5 reflected the results for 2012. In the ADR category, the variable with the most statistical significance was value. Following the trend of the previous years, this too was a negative relationship. Overall experience displayed the next highest statistical significance in a positive relationship. The final variable in ADR that had statistical significance was room, also with a positive relationship. Value was the only variable with statistical significance vis-a-vis the occupancy variable, with a negative relationship. It also proved to have a strong negative relationship with RevPar and ultimately was the variable with the most impact on this dependent variable. Overall experience, on the other hand, resulted in almost as significant an impact, demonstrating a positive relationship with RevPar.
**Year 2013.**

In 2013, as shown in Table 6, value showed the most impact on the ADR variable in a negative connection. The second variable was sleep, instead with a positive relationship. Value also had the most statistical significance in relation to occupancy, illustrating a negative relationship. In other words, when the occupancy percentage rose, the guest felt that the value to their experience had decreased. The next variable, overall, provided the second most statistical significance on occupancy in a positive relationship. Again, value provided the most impact on RevPar in a negative relationship. Sleep followed with a positive relationship.

**Year 2014.**

Table 7 in the previous chapter reflected the results for the year, 2014. For the ADR dependent variable, the independent variable of value had a statistically significant impact. Consistent with the previous years, this too was negative—when the ADR increased, the value experienced by the guest decreased. The second variable was room, in a positive association. The final variable in relation to ADR that had statistical significance was sleep; this too was a positive relationship. Value was the only variable with statistical significance in the occupancy category. Once again, the relationship was negative, meaning that when the occupancy increased at the hotel, the value perceived by the guest decreased. This was the only variable providing a statistical impact on the occupancy percentage of the hotel. Value, as in all previous years, had a negative statistically significant impact on RevPar. In addition, room also provided a level of statistical significance, with a positive association.

**Yearly summary.**

Across all five years analyzed for the study, the independent variable value had the greatest significance across all three dependent variables, as shown in Table 8. The overall
variable was a major influencer in both ADR and occupancy between the years 2010 to 2012. Then in 2013, guests started to emphasize their desire to have a positive room experience. It is evident, however, that above all hotels need to focus on value. These results confirm the work of previous studies, in which value is considered the most impactful factor to address positive reviews (Berezina et al., 2016; Mattila & O’Neill, 2003; Matzler et al., 2006; Mohsin & Lockyer, 2010; Radojevic et al., 2015a). Since value was found to be statistically significant in 92.9% of the cases over the years, regardless of the previous research, this study has concluded its ultimate importance for a hotelier to be mindful of when creating a sense of perceived value for the guest.

Diamond level rankings.

This study examined the comparison of hotels based on the diamond level status, which had been awarded to each hotel, by the American Automobile Association (AAA). Only hotels ranked between two-diamond to five-diamond were examined in this particular study. The analyses for these rankings can be found in Tables 10 to 14 of the previous.

Five-diamond status.

Within this sample, three hotels achieved the distinguished five-diamond status, which can be seen in Table 10. The independent variable room was the most impactful variable in relation to the dependent variable of ADR, with a positive relationship. In practicality, this conclusion makes sense, since the guest of a luxury hotel is going to have high expectations for their room experience.

The overall variable was the only other variable of statistical significance, with a negative relationship. When the ADR increased in a five-diamond hotel, the overall rating provided by guests decreased. The overall variable was also the only independent variable to provide
statistical significance for occupancy. This relationship was negative: when the occupancy increased at the hotel, the guest provided a lower rating for the overall experience encountered.

Several independent variables proved to influence RevPar with statistical significance. The first variable to provide a statistically significant impact toward RevPar was room, with a positive association. This was followed by the overall variable, in a negative association. In general, overall was the variable that most significantly impacted all three dependent variables in a negative association. Another key variable that a hotel should be mindful of is the room rating that a guest provides.

All of the detailed relational matrices shed light on future strategies for improvement that the literature has not previously addressed. There was a gap in the research on AAA diamond ranking of hotels in terms of customer satisfaction—for that matter, a gap also exists in the research on star rankings. This study concluded that a guest seeking a luxury hotel is searching for an experience that will exceed their expectations; hence, the overall rating is one of the most influential factors with their rating.

**Four-diamond status.**

Table 11 shows the 26 hotels that were ranked with a four-diamond level status for this study. There were three variables, which all provided a statistical significant impact on ADR: value, location, and staff. Value had a negative association with ADR. The next most influential variables were location and staff, both with a positive relationship. This was followed by independent variables on ADR, all with a positive relationship, were overall, cleanliness, and sleep. This means, for example, that guests who encountered a hotel room that they felt was clean and afforded them a good sleeping experience were willing to accept a higher daily rate.
The occupancy category was impacted by the value independent variable in a negative relationship. Location can also positively impact occupancy. As a four-diamond hotel, in terms of RevPar, the most influential independent variable was value. Similar to ADR and occupancy, value in the relationship with RevPar was negative as well. The second most influential independent variable was location, with a positive relationship, followed by staff. Finally, cleanliness provided another positive statistical significant relationship.

In terms of four-diamond hotels, the two most influential variables for a property to consider were value and their location. Again, the previously cited work on value reinforces its importance. The addition to the connection of research is the aspect of location, as numerous researchers have examined the effect of this variable (Brotherton, 2004; Clemes et al., 2010; Darini & Khozaei, 2016; Nash et al., 2006). While this study did not uncover the reasons for a traveler to be staying at a hotel, in order to better understand the ratings provided by a guest, their purpose or intent for staying at the hotel must be known (Madlberger, 2014). Within the formal definition of a four-diamond hotel, it states that a guest is seeking a high degree of hospitality with attention to service detail (American Automobile Association, n.d.). The guests ranking location in this category could possibly be solo, couple, or family travelers, for which groups the location of the property to nearby attractions is more likely to be an important component to their experience (Madlberger, 2014).

**Three-diamond status.**

This study included 22 hotels ranked with a three-diamond level status. The analysis for this level can be found in Table 12. For the dependent variable of ADR, this category provided four statistically significant independent variables of impact: location, overall, value, and
cleanliness. The variable of location had a negative impact on ADR, while the variables of overall, value, and cleanliness all had a positive relationship.

For the category of occupancy, there were only two variables there were statistical significant. The variable of value had a negative relationship while the variable of overall had a positive relationship. Three variables had a statistically significant impact on RevPar: value, overall, and location. Value and location both had a negative impact on RevPar, indicating that, for example, when the rate charged was higher, the guest ranked the location lower for a three-diamond property. The overall variable had a positive relationship. Finally, cleanliness also had a statistical impact, in a negative association. When guests found that the property did not meet their cleanliness expectations, the property was typically charging a higher rate for their rooms.

For three-diamond hotels, in general value and overall were two of the variables that operators should pay most attention to when they would like to be able to see an impact on their revenue operation—keeping in mind that the three-diamond hotel category is the largest in this data set at 47.3% of the total hotels, as seen in Table 9. This Distinguished AAA category is seeking to provide a guest with enhanced comforts for their experience (American Automobile Association, n.d.) in the hotel.

**Two-diamond status.**

There were four hotels ranked with a two-diamond level status for this study, only 7.3% of the sample size, as seen in Table 9. The dependent variable of ADR had several independent variables providing an influence for two-diamond hotels. The first to provide influence was value, in a negative relationship. Room and staff both had a positive association. Finally, overall had the last line of influence in a negatively associated connection.
Occupancy percentage of two-diamond hotels only had two independent variables to provide a significant level of statistical impact, which were location and value. Location had a positive relationship, while value had a negative relationship. RevPar had several independent variables that provided statistical impact. First was value with a negative relationship. Then location, staff, and room each had a positive relationship. Finally, overall had a negative relationship.

In general, a two-diamond hotel should focus its efforts on ensuring that value is well appointed for the hotels. Location would be the second variable to focus on, and advertising it will drive the occupancy percentage and the RevPar in their competitive marketplace. While a two-diamond hotel does not fit into the budget category, but an Affordable zone that provides modest facilities (American Automobile Association, n.d.), it comes the closest to previous research of Ren et al. (2016). In the case of this study, location only provided statistical significance in relation to occupancy and RevPar, while in the previous study, it was not considered a factor for budget hotels. It would be interesting to see, in a future study, what variables most strongly affected a one-diamond hotel, if this support of research was confirmed.

**Diamond status summary.**

In a five-diamond setting, a guest is seeking a more luxurious set of accommodations. Hence, value is not a variable found to have a statistically significant impact. Instead, both room and overall are a more critical for this level of hotel. However, guests staying in properties with two to four diamonds are expecting value for their stay across all dependent variables. The importance of location is most common amongst guests staying in a three- or four-diamond property. The final variable to display significance across the board is Overall.
Price of hotels.

All data analysis of the chain scale segmentation can be found in Tables 15 to 22. The hotels in this Boston market did not have any hotels that were categorized as economy chains, so there is no analysis for chain of hotels available.

Luxury chain.

There are 11 hotels that fit into the luxury chain category, as seen in Table 16. This category would include properties such as the W by Starwood, the InterContinental, and the Ritz-Carlton. It is interesting to note that not all of the five-diamond hotels sampled fit into this luxury price category.

Upon examination of the ADR dependent variable for luxury chain, it was found that the variable of location had a negative relationship. This means that if the hotel charges a higher rate than the guest is expecting for the hotel’s location, the ranking will be lower. This is an interesting finding, as the research does not conclude support for the attribute of location on the luxury price segment, since no previous study separates out the segments the way this study has. Therefore, the finding of location as a statistically significant variable in relation to ADR and RevPar is an important finding to add to the literature. Next was room and cleanliness, both with a positive impact.

Occupancy only had two variables that made a statistical impact on the percentage, value and sleep, both with a negative relationship. RevPar had location as the variable that had an impact in a negative association. Room with a negative association and value with a positive association also had influence over RevPar.

When it comes to driving rate in the hotel, location had a statistically significant impact, for ADR and RevPar. A hotel positioned in this luxury level needs to ensure that the price they
are charging matches the expectations of the guest for a location ranking. Based on the research of text-based comments about what produces a higher location score (Darini & Khozaei, 2016; K. L. Xie et al., 2014), a hotel should market the proximity to public transportation in the marketing material prior to booking. In order to increase the occupancy of a luxury property, the guest needs to experience a sense of value as well.

**Upper upscale chains.**

Data for upper upscale chains can be found in Table 17. There were a total of 17 hotels, or 30.9% (as seen in Table 15), that fit into the upper upscale chain category. Property examples for this category would include Kimpton, Hyatt, Hilton, Westin, Marriott, and Sheraton. Significant statistical impacts were found on both ADR and RevPar. Four independent variables had statistical significance on ADR. In first place was value, with a negative relationship. Then location, staff, and overall had positive relationships. The attribute of staff was found in research to be an influencing factor (Berezina et al., 2016; Bilim & Basoda, 2014; Mohsin & Lockyer, 2010; Xu & Li, 2016). When comparing the types of hotels in this category back to the service expectations provided by employees of a particular brand it would make sense that staff is an attribute ranked highly in this price category. The last variable to provide a statistical impact on ADR was sleep, in a positive association. There is no solid research on sleep as an independent variable in the literature variable. In most instances of analysis within the literature, quality of sleep has been found to be associated with the room variable. This could lead to further research to understand what is meant in the context of these reviews—i.e., what are the components of sleep that are important for guests staying in an upper upscale hotel.

Occupancy was significantly statistically impacted by both value and location. Value showed a negative relationship, while location had a positive association. These were followed
by sleep, with a positive association. Finally, the overall variable had a positive impact on occupancy.

RevPar, similar to ADR, had several variables that had a significant statistical impact. The four variables were value, location, sleep, and overall. Value was the only of these significant variables to have a negative relationship. Finally, the last variable to impact RevPar was staff, with a positive association.

Against each of these three dependent variables of ADR, occupancy, and RevPar, both value and location were statistically significant variables. Therefore, it would be important for this category of upper upscale chain hotels to focus on the value they provide to the guests based on their rate, if they want to be successful at driving their rate in the marketplace. While the location is not an attribute they have control over changing, the hotelier does have control over the message they share about their property in marketing materials and online channels.

*Upscale chains.*

The data for the eight hotels in the upscale chain category can be seen in Table 18. Examples of hotels in this category include Residence Inn and Courtyard by Marriott. Two statistically significant variables to impact ADR were value and location. Value had a negative relationship, while location had a positive association. In addition, the overall variable provided a positive impact. The occupancy variable was significantly impacted by the value variable, with a negative relationship. The only other variable to have an impact on occupancy was sleep, with a positive association.

Finally, in the RevPar category, the statistically significant variable of value had a negative relationship. This was followed by location and overall, each with a positive association with RevPar.
For driving rate in the upscale chain category of hotels, both value and location remain the most important factors. Again, the previous research strongly supports these two attributes as contributors to guest satisfaction.

**Upper midscale chains.**

There are five hotels from the sample that fit into the upper midscale chain category, as seen in Table 19. Hotels that fit into this category include Hampton Inn, Holiday Inn Express, and Best Western. For this category, in ADR, two variables—overall and staff—had the most statistical significance. Overall had a negative association, while staff had a positive association with ADR. The positive experience a guest encounters through interactions with the staff on site can lead to a positive and significant increase in rating score. This particular type of hotel is operated with a limited quantity of staff; hence, those staff members who are hired need to be responsive to guests’ desires and requests. The last variable to provide an impact on ADR was location, with a negative relationship.

The occupancy percentage was statistically impacted by two variables. The first to provide an impact was overall, with a negative relationship. The second variable was staff, with a positive association. Both of the independent variables that had an impact on RevPar were overall and staff. Overall had a negative relationship, while staff had a positive association.

For all three of these dependent variables, the two independent variables from TripAdvisor that should be focused upon are overall and staff. In theory, these properties offer a more streamlined level of service staff available, so it is critical for the staff to do their jobs well in order to continue to make that positive impact on the guest experience.
**Midscale chains.**

There is only one hotel that fit into the midscale chain category, as identified in the data analysis found in Table 20. Each of the dependent variables only had one independent variable to provide a level of statistical significance. The ADR was impacted by value in a negative way. The occupancy was just barely impacted by the location variable in a positive way. The last examination was on RevPar, for which value was the only variable with statistical significance, with a negative relationship.

For a midscale chain hotel to increase its rate and still satisfy guests, it must closely address the value that the guest will receive from the experience. A guest booking a midscale chain hotel is looking for good value for the money spent. This again is going to be tied closely to the reason for being at the hotel. Likely guests at a midscale chain hotel could possibly be solo travelers, as they tend to be less concerned with the staff, service, and rooms, and more concerned with the value and location, as they are interacting with the attractions in the destinations closest to this type of hotel.

**Independents.**

There are 13 hotels that fit into the independent chain category. The data analysis for these hotels can be found in Table 21. The analysis of ADR provided three independent variables with the most statistical significance. First was value, with a negative association, as the strongest of all variables. Next were room and staff, each with a positive relationship. In addition, overall and cleanliness had influence on ADR; overall had a positive relationship, while Cleanliness showed a negative relationship.

The occupancy for independent hotels had the staff variable with a statistical impact, in a positive association. The next variable was value, in a negative relationship. Finally, room had a
significant statistical influence as well, in a negative association. The RevPar category showed three variables to have a statistical significance: value, staff, and room. Value had negative relationship, while staff and room had a positive association. In addition, cleanliness provided a statistical impact with a negative association.

Based on these findings, for independent hotels to be successful with regards to revenue, they need to ensure that they provide a solid experience for the guest to feel the value is achieved. As an independent hotel, they do not have the component of a chain name to stand with their property; thus, in order to drive occupancy and push the ranking on rate, staff is the next concern for these properties. Interestingly, in the independent properties, location and sleep rankings are not nearly as important as they are to the other categories.

Cleanliness lies directly in the hands of management at a hotel (K. L. Xie et al., 2014). The results of this study support that guests are concerned with the ratings of a hotel’s cleanliness when it is an independent property, versus that of a chain or franchised establishment. Previous research identifies that franchise properties outperformed company-owned hotels on cleanliness (Lawrence & Perrigot, 2015); however, there was a gap in the literature to address the cleanliness of independent hotels. The findings of this study support that cleanliness is indeed a concern of guests, and the ratings of such have an impact on the ADR and RevPar. One of the justifications could be the lack of standards that an independent hotel would have with regard to cleanliness, as it could vary from hotel to hotel. Since in both of these cases it indicates a negative relationship, the concern comes from a lack of cleanliness being rated at independent hotels.
Hotel price summary.

Out of the 18 opportunities for the independent variables to impact the dependent variables, value was considered statistically significant in 13, or 72.2%, of those instances. Location was considered influential 50% of the time, as seen in Table 15, as was the overall variable. Both the upper midscale and independent categories found staff to be a consistently significant variable across all three dependent variables. The impact that the staff has on a guest experience is critical, and therefore, it would be in the best interest of hoteliers at these types of properties to invest in proper hiring and training practices to ensure a superior staff to accommodate guest needs.

Hotel market.

In the division of hotels by market, the category was divided by STR, into six categories: (1) luxury, (2) upper upscale, (3) upscale, (4) upper midscale, (5) midscale, and (6) economy. The data analysis for each of these markets can be found in Tables 23 to 29. Unlike the price category of hotels, there are only six divisions; the independent category is not a part of the market designation. In addition, for this study, the data did not provide any hotels in the sixth category of Economy; hence, there is no analysis for that division.

Luxury.

There are a total of 13 hotels, or 23.6% of the data set, that fit into this luxury hotel market category, as seen in Table 23. The details of the analysis for this market can be found in Table 24. There are two more hotels in the luxury market of hotels than there were in the Luxury price of hotels. Similarly, to the price breakout, the property examples would include W by Starwood, the InterContinental, and the Ritz-Carlton.
In the luxury market, ADR had location with a statistically significant variable with a negative relationship. The variable of room had a positive relationship. Finally, cleanliness had a statistical influence in a negative association. In a luxury hotel, the guest would expect that cleanliness should meet or exceed their expectations; in the event that the experience failed to meet these expectations, the rating and review would be negative.

Two variables that provided a statistical impact on occupancy were value and sleep. Both of these variables had a negative relationship upon occupancy. The RevPar variable within the luxury market had three variables that showed statistical influence: location, room, and value. Both location and value had negative relationships, while room had a positive association.

In order for luxury hotels to increase their revenue generation, the location of the property and the quality of the room experience need to be a primary focus. Since they are not able to change their location, these properties will need to make sure that they accurately explain their location in their marketing collateral and in the various online channels. If they are able to tap into any of the positive attributes of their hotel and relate them to location, they should harness that (e.g., discuss the view or walking distance to certain attractions). In order to drive an increase in their occupancy percentage, luxury hotels will need to be most mindful of their value and sleep experience.

**Upper upscale.**

The data analysis for this market can be found in Table 25. There are 26 hotels, or 47.3%, that fit into this upper upscale hotel market category, as displayed in Table 23. Unlike the upper upscale price classification of hotels, which contained only 17 properties, this market classification ranks an additional nine properties and thus is the largest segmentation in the market category. Similarly, the property examples for this category would include Kimpton,
Hyatt, Hilton, Westin, Marriott, and Sheraton. This category had a significant amount of activity, where five or six independent variables had an impact of each of the three dependent variables.

The ADR variable was statistically impacted by four independent variables. First of these was Value, with a negative relationship. Staff, overall, and location, all with a positive association. Additionally, sleep was another variable that provided a statistical influence on ADR in a positive association. The occupancy percentage was statistically influenced by value, in a negative relationship, and location, in a positive association. In addition to these, sleep and overall had an influence through a positive relationship. Finally, room showed influence in a negative way.

RevPar had four variables having an impact of statistical significance. The first variable was value, with a strong negative relationship. This was followed by three variables with a positive relationship: staff, overall, and location. In addition, sleep had an influence in a positive relationship. Finally, cleanliness had a borderline influence in a negative association.

The upper upscale market experienced the first encounter where, in order to show an increase in revenue generation via ADR and RevPar, the order and relationship to the independent variables was an exact match for influence order. Properties in this market category need to focus on the experience for guests in this order: value, staff, overall, location, and sleep. Keeping in line with the revenue generation, in order to drive occupancy in these properties, they will need to ensure that the value the guest receives is the focus. Hotels that will be successful in this category will ensure a good value for the guest experience, which will be driven by the hiring and training of qualified staff, attentive to the needs of their guests.
**Upscale.**

There are eight hotels that fit into this upscale hotel market category, as seen in Table 26. This is the exact same amount of hotels as identified in the upscale price category of hotels, with 14.5% of the market, as seen in Table 23. Examples of hotels in this category include Residence Inn and Courtyard by Marriott.

The dependent variable ADR showed a total of six out of the seven independent variables providing an impact. Of these, three with significance included Value, with a negative relationship, and room and overall with a positive association. The next variable with significance was staff, with a positive relationship. Both sleep and location had the identical level of positive impact.

Occupancy only had two independent variables that indicated a significant impact. First was value with a negative relationship. The other variable was location, which had a positive association.

The final dependent variable, RevPar had all but one variable with an impact in the upscale market. Of these independent variables, three had the significant statistical impact: value, room, and location. In addition, overall, staff, and sleep had a statistical influence on RevPar in the upscale market. Value was the only variable to have a negative relationship; all other variables had a positive association with RevPar.

If hotels in the upscale market are seeking to drive their rate, then they need to focus their efforts on the guest experience for an increase in the ranking of value and room variables, which were the most statistically important. Drivers of occupancy for the upscale market of hotels will need to focus on the value and location. In general, with so many attributes creating an impact
on the financial performance of the hotel, the management team must be operating on all
cylinders in order to show positive financial results.

**Upper midscale.**

There are six hotels that fit into this midscale hotel market category. This is one
additional hotel than in the upper midscale price designation of hotels, as seen in Table 23.
Hotels that fit into the upper midscale market category include Hampton Inn, Holiday Inn
Express, and Best Western. The data analysis can be viewed in Table 27. The ADR was
impacted by five variables, of which overall and staff provided a significant impact on ADR.
Overall had a negative relationship, while staff had a positive association. The next variable was
location, with a positive association. Finally, the room variable had statistical significance, and it
had a positive relationship.

The occupancy was impacted by two variables. One of the statistically significant
variables was overall, with a negative relationship. Staff was the second variable, with a positive
association. Finally, the RevPar was statistically impacted by two additional variables with
equal significance: overall had a negative association, while staff had a positive relationship.

For hotels that fit into the upper midscale market to increase both their revenue and
occupancy, they need to focus their efforts on the overall score and the staff. Similar to the
upper midscale price category, overall and staff are the most important variables. Again, the
concept of a well-designed staffing model is going to be critical, considering the tangibly
measured impact the staff can make on the guest experience.

**Midscale.**

There is only one hotel that fit into this midscale hotel market category. The data
analysis can be found in Table 28. Each dependent variable was only impacted by one
independent variable for statistical significance. The only variable to provide statistical significance on the ADR category was value, with a negative relationship. The variable to provide a significant statistical impact on occupancy was location, with a positive relationship. Similar to ADR, the only variable to produce statistical significance in relation to RevPar was value, with a negative relationship. As with the Price designation for this hotel market category, value is the key variable to drive the rate in these hotels. In order to drive occupancy, the focus should be on location.

_Hotel market summary._

In conclusion, for the hotel market, value showed the most importance, with ten out of 15 appearances, or 66.7%, across all three dependent variables. Location was another variable at the same frequency. Guests at this lower spectrum of the hotel classification segment are indeed looking for a good value for their money and a location that works well for that price point.

_Size segmentation._

The hotels were divided into five various size brackets, as defined by Smith Travel Research (STR). STR segments the size category of hotels into five different room volumes; (1) less than 75 rooms, (2) 75-149, (3) 150-299, (4) 300-500 rooms, and (5) greater than 500 rooms. The data analysis for these size segments can be found in Tables 30 to 36.

_Hotels with less than 75 rooms._

In this category of room size, only one hotel existed, as displayed in Table 31. Upon examining the ADR, there were no variables in this category to provide a significant statistical impact. The occupancy percentage had only one variable, overall, that provided an impact of statistical significance, with a negative relationship. Finally, the RevPar, for this size was
impacted statistically by only one variable, overall, with a negative impact. Since there was only one hotel in this category, it is not wise to generalize the findings.

**Hotels with 75-149 rooms.**

In this category of room size, 11 hotels, or 20%, were included, as seen in Table 30. The data for these hotels can be found in Table 32. Upon examining the ADR, value had a significant statistical impact, with a negative relationship. Room and sleep, both with positive relationship, followed it. Value provided statistical significance toward occupancy, with a negative relationship. Sleep and staff, both had positive relationships. Finally, the room variable had a negatively associated influence.

Finally, the RevPar variable showed value as a statistically significant variable, with a negative association. Sleep and room followed this as variables with positive significance. For hotels with 75 to 149 rooms, value has a statistically significant variable upon which a hotel should concentrate its efforts.

**Hotels with 150-299 rooms.**

In this third category of room size, 23 hotels, or 41.8% of the data set, exist, as seen in Table 30. In the Boston market and for this study, this is the largest category of room size for hotels. The data for these hotels is detailed in Table 33. Upon examination of the ADR, it was determined that five out of the seven variables provided a statistically significant impact. Two of these attributes, value and location, provided the strongest level influence. Value had a negative relationship, while location, room, sleep, and overall had positive associations.

The occupancy percentage was influenced by four variables. Cleanliness provided a statistically significant impact on occupancy, with a positive relationship. Next, with a negative association, were sleep, overall, and value. Together, value and location had a significant
statistical impact on RevPar—value with a negative relationship and location with a positive relationship. The other variable to provide a statistical influence on RevPar was cleanliness, with a positive relationship.

Hotels containing between 150 to 299 guestrooms that are trying to make a positive impact on their revenue should focus on the value and location variables. In order to increase the occupancy, a property should again continue to focus on the value.

Hotels with 300-500 rooms.

The fourth category of room size has 12 hotels, or 21.8% (as seen in Table 30); it is the second largest category in the Boston market. The details of the data for these hotels are represented in Table 34. Both value and location had a significant statistical impact on ADR. Value had a negative relationship, while location had a positive association. These were followed by overall, staff, and cleanliness, which also had a statistical impact on ADR in a positive relationship.

Value had a statistically significant variable on occupancy at this hotel size, with a negative association. Staff followed, with a negative relationship. The final variable to provide a statistical impact on Occupancy for this size category was location, with a positive association.

Together, value and location had significant statistical impacts on RevPar. Value had a negative relationship; location had a positive association. The only other variable to provide a statistical impact on RevPar was overall, in a positive association.

Hotels of this large size should concentrate on delivering an experience to the guests that meets their expectations for value, as it was the variable found to have statistical significance across all three dependent variables. In order to increase revenue, the next focus that hotels should place their effort on is location.
**Hotels with greater than 500 rooms.**

The final category of room size represented eight hotels; it is the third largest classification of hotels in this study, as seen in Table 30. The details for the data analysis can be found in Table 35. Upon examining the ADR, value and sleep both had a statistically significant impact on ADR. Value, as found against all of the dependent variables for this size category, had a negative relationship. The sleep variable followed, with a positive relationship. In addition, overall and location were statistical significant, both exhibiting a positive relationship.

Value and location displayed statistical significance on occupancy. Value had a negative association, while Location had a positive relationship. These variables were followed by room, with a negative relationship, as well as sleep and overall, both with positive relationships. RevPar had three variables with a statistically significant impact. Value showed a negative relationship with RevPar. It was followed by sleep and location, both with positive associations. The only other variable to provide a statistical impact on RevPar was overall, with a positive relationship.

Across all three dependent variables, value was the variable referenced by users of TripAdvisor as the most important and therefore the key area of focus for the hotels in delivering a satisfactory experience. The majority of hotels in this size category also meet the categorization for an upper upscale chain price hotel and an upper upscale market class of hotels.

**Hotel size summary.**

In summary, for the size segmentation of hotels, as seen in Table 36, it is clear that the independent variable value is the most critical to focus upon for a hotelier, since it was found to be statistically significant for each dependent variable across all size segments. Out of the 15
segments analyzed, both sleep and location were found to be statistically significant 53.3% of the time. Overall was found as statistically significant in 60% of the opportunities.

**Operation segmentation.**

The hotels were divided into a final category, which was based on operation style. STR categorizes the hotels into three different operations: (1) chain owned and/or managed, (2) franchised, and (3) independent. These classifications can be seen in Tables 37 to 41.

**Chain-owned and/or managed.**

In this category of operation style, 27 hotels, or 49.1%, exist, as seen in Table 37. This is the largest classification of hotels in this data set. The details of the analysis for this category can be found in Table 38. In this category, ADR had five variables that provided a level of statistical significance. In order of significance, they are value, followed by location, both with a negative relationship; then overall and room, both with positive relationships; and finally cleanliness, which had a negative relationship with ADR.

There were three variables that provided a statistically significant impact on occupancy for the chain owned and/or managed segment. The variable of value had a negative association. Next was location, followed by sleep; both had a positive association with occupancy.

Finally, there are five variables of statistical influence on RevPar. Value had a negative relationship, and overall had a positive relationship. The next variables were room and location, both of which also had a positive association. The final variable with statistical impact is cleanliness, which had a negative association.

The number one driving variable against all three dependent variables was value as ranked on TripAdvisor. As a chain or managed hotel, value is an expectation of guests, and
conveying or highlighting that attribute will be an important success factor on financial performance.

**Franchised.**

In this category of room size, 15 hotels exist—the second largest category of hotels in the study, as seen in Table 37. The data can be found on Table 39. For this category, ADR had three variables that provided a statistical impact, with close levels of significance. Location provided a positive relationship, while value had a negative association. Cleanliness was the final variable of significant impact, with a positive relationship.

With regard to occupancy, there were five variables with a statistical impact. Value and overall had negative relationships. While room, cleanliness and location had positive associations.

RevPar provided three variables with a similar strong statistical significance: location, value, and cleanliness. Of these, location had a statistical significance, with a positive relationship to RevPar. This was followed by the negative relationship of value. Finally, cleanliness provided a negative relationship. The last significant variable relationship with RevPar was Room, with a positive association. For the franchised hotel, in order to increase the revenue, the focus needs to be placed on the location, followed by the value. Value remains the most prominent variable in order to increase the occupancy percentage. Previous research has supported the importance of cleanliness of franchise properties over that of chain-managed properties (Lawrence & Perrigot, 2015); the findings of this study are consistent with those of past studies.
Independent.

The smallest category of room size, with 13 hotels, is the Independent category. The data for this category can be found in Table 40. There were three variables that had a statistically significant impact on ADR, including value, room, and staff. Value, and cleanliness displayed negative relationships. Room, staff, and the overall variable had positive impacts.

The occupancy of independent hotels was statistically influenced by staff, which had a positive relationship. Value provided a negative relationship. Finally, room provided a positive association. There were three variables with significant statistical impact on RevPar: value, staff, and room. Value had a negative relationship, while staff and room both had a positive association. In addition, cleanliness had a negative relationship.

The independent hotels need to focus on the value experienced by the guest in order to increase their revenue. The occupancy percentage, on the other hand, will be driven higher by positive interactions with the staff. Since an independent hotel does not have the support or name association like a chain or franchised property, the experience with the staff is going to make the overnight stay the most memorable, thus having the greatest level of impact.

Operation segment summary.

In summary, the value variable provided the most frequently significant variable across all dependent variables of the study. Value was found as the first or second most frequently significant variable for nearly all dependent variables across all three segments of the category. An independent hotel has the most impact with the staff and room variables. The chain and franchised properties are significantly impacted by their location in terms of receiving higher ratings.
Category Summary

In general, upon examining the ratings against the hotel performance indicators, value was the most influential attribute. However, keeping in mind that this study was conducted in one city—albeit a top hospitality market—it would be inappropriate to generalize this finding toward all hotels. Moreover, the prestige of the Boston hotel market must also be considered both in conjunction with this finding and when planning any analytical replication. As previously discussed, Boston offers a high volume of four- and five-diamond level properties. In another market similar to Boston, with a high representation of luxury properties, it would stand to reason that the findings of this study could still apply—i.e., that value could remain the most influential variable.

Industry Implications

This study has numerous critical implications for the hospitality industry. Due to the singularity of this study, hoteliers can examine their individual hotel attributes as compared to the results of this study in order to focus their efforts for successful operation. Hotel operators can examine how they craft certain aspects of a guest experience, based on the results from this study. Financial performance of hotels will be most frequently and most meaningfully impacted by value, per the attributes rated on and sourced from TripAdvisor. Additionally, hotels must identify the traveler type staying with them and their purpose for travel so the property can ensure that the experience they deliver exceeds expectation and therefore satisfaction levels; in turn, this would then boost the hotel rating in the value category. A higher rating in a value category could increase the revenue stream into the hotel, thus making them more profitable and providing a higher rate of return for ownership.
Location is the next attribute that hoteliers should market more effectively. As research has demonstrated, once a hotel is built it is not going to be relocated easily. Therefore, management must do what they can to clearly explain the location in marketing materials, distribution channels, and in responses posted in online review portals. When indeed the location is truly poor, or the public transportation in that area fails to meet the expected desires of the guests, it would be beneficial to develop trust amongst users by explaining these reasons in social media management responses. When a location is good the hotel must capitalize upon it and express that well in marketing materials.

Staff is the next variable that management has the ability to control. This can start by hiring the correct candidate for the correct position. It will then lead to training that individual thoroughly and retaining them as needed. The positive leadership demonstrated by management will make the staff feel as though they are a part of the team and a part of the vision for the success of the hotel. Any instance of misconduct or poor behavior, as recognized by guests in the text of online reviews, needs to be dealt with immediately and accordingly with progressive discipline. A bad seed, or employee, could tarnish the reputation of the hotel and drive the financial performance of the hotel down.

Cleanliness is another attribute that is within the control of the management on site at the hotel. Strict cleaning standards need to be developed and adhered to. Inspections for cleanliness are an integral part of this process to ensure that what the guest sees can be perceived as a positive reality. A decline in the standards of cleanliness can have a direct negative impact on the financial performance of a hotel.

In general, the results of this study are very specific for the type of hotel category that is in operation. A hotel should identify which various segments for price, market, size, diamond
rating, and operation type they are, then focus specifically on the variables identified as most important to developing a successful plan. When these attributes are focused upon, a property is likely to see positive financial performance in the market place.

**Academic Implications**

While the importance of this study is relevant in industry applications, it is just as important to consider the academic perspective. The first aspect to consider is the unique nature of this study. After an extensive review of literature, there have been no published studies found that examine the variables of this study as they relate to public postings, in relation to the performance of a hotel in the market.

A second aspect that contributes to the literature is the methodology of this study, which combined two data sets from TripAdvisor and STR. The abundance of data provided by these two industry firms can lead to additional research. The genuine uniqueness to this study, as it relates to these two prominent hospitality businesses, STR and TripAdvisor, can be shared in numerous publications, both with an industry and academic audience.

Finally, the last aspect impacting academia is the opportunity to expand upon theoretical models, for which this study provides a foundation. Examination of a study using a similar methodology in other major hotel markets will allow for the development of more confident generalizations. In addition, comparisons can start to be identified. This will then serve as a foundation to expand current theoretical models.

**Limitations and Future Research**

While the findings of this study are timely and relevant to the industry, in a few years, they may not be. As with the nature of technology, changes are a constant in the industry. When TripAdvisor started their website in 2000, it was not well received by hoteliers. Finally, in 2011
managers started to embrace the tools available and realize the impact of the website. Academic research on this subject was limited at that time. Over the last two years, there has been a greater surge of related published research. This study seeks to fill the gap in the current stream of academic research. This is an applied study, in which a grounded theoretical approach was utilized. It has set the foundation to work from the ground up for continued research in this area moving forward. Upon successful future studies using this model, more theoretical models could then be built upon to demonstrate additional academic strength.

The format in which the data was collected also provided a limitation. The original intent behind the study was to include additional factors to examine; however, either TripAdvisor did not record the data or the information was not provided from the source. For example, until sometime after 2009, TripAdvisor did not record the popularity index rating for each hotel. Alternative third party marketing firms collected this data—however, it was cost-prohibitive to obtain.

Another limitation of this study is the unknown status of the reviewers on TripAdvisor—in particular, facts like the purpose for travel and the city of origin are not known. The TripAdvisor query generation was not able to produce the desired information. In the interest of timeliness for this study, requesting additional data sets was not feasible. However, additional data could potentially be requested in the future for additional research studies.

One consideration for future research would be to take this model, which was conducted based on the Boston market, and apply the same analysis techniques on data retrieved for a different market place. Comparisons could then be made on these attributes making a more general form of recommendations across the United States. Since TripAdvisor operates in many
other countries and STR has the financial performance data in other countries as well, future studies could look at different parts of the world as well.

Another opportunity for future research could include the analysis and examination of the TripAdvisor attributes as a combined running total compared to the monthly hotel revenue indicators. Since the TripAdvisor website essentially displays as a popularity rank index, it could serve as an interesting opportunity to see if the ranking availability has the potential to impact lodging revenue earning in a long-term booking approach.

Another proposition would be to look at a time-series approach to the data analysis and tie a specific increase or decrease, as seen in the data, for the financial performance indicators. The researcher also has all of the quantitative data associated with the data set for this study; a future study will include a content analysis of the data, which could then explain more of the numbers and significance to this study with a greater impact. This would lead to a significant contribution to the field of research for this area.

**Chapter Summary**

This chapter reviewed the detailed findings of this study. Recaps of the statistical findings were presented. Both the implications of practicality and academia were discussed. Finally, the limitations of the study were addressed, which led to a discussion about the paths for future studies.
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ACKNOWLEDGEMENTS

I would like to thank the members of my committee for their extreme patience in the face of numerous obstacles. I am extremely honored to have worked with Dr. Thomas Schrier, my major professor, and thank him sincerely for all of his support, encouragement, patience, and insight while I worked toward completion. My committee members, Drs. Eric A. Brown, Young-A Lee, Anthony Townsend, and Tianshu Zheng, deserve my heartfelt gratitude. Dr. Brown was a consistent source of online social support and encouragement during my writing stage. I would like to thank Dr. Susan Wohlsdorf-Ardent for ensuring my first case study article was published and teaching me the value of pithy diction as a written document comes together.

In addition to my department chair, Dr. Robert Bosselman, I would like to thank all faculty members in the College of Human Services and the department of Apparel, Events, and Hospitality Management (AESHM) for making a positive impression on me during my graduate studies at Iowa State University.

I would like to thank my industry friends and partners, particularly Brian Payea of TripAdvisor, along with Duane Vision and Steve Hood of Smith Travel Research for working with me to create the queries referenced in this study and provided me with the necessary data for the research design. I would like to recognize my cohort members and dear friends William Solomon, Wendy Kasche, and Don Schoffstall for their encouragement, support, and friendship. I also would like to thank my Boston University colleagues for sharing their dissertation tales of woe, while providing a glimmer of hope for post-dissertation completion.

While there have been so many friends who have supported me during the completion of my PhD, there are a few who deserve a special highlight. I would like to recognize my friend Annie Jekova for taking significant time to assist me with my Excel data files, so that they could
be more easily managed. I would like to thank Jing Yang for all of her expertise and experience throughout some of my more stressful data analysis. I am indebted to the editorial services of Gabrielle Guarracino. I would like to thank my son’s godfather, Paul Bagdan, for his enduring support and encouragement throughout the process. I am grateful for the encouragement that my former Dean, Caroline Cooper, provided as she persuaded me to pursue a degree in my field of study. The encouragement and supportive references of my former employers, Dr. Deborah Hirsh and Keane Bell, for assisting the completion of my ISU application is much appreciated. I would like to thank my BAM girls, for cheering me on, offering to assist in caring for my son, and providing support and genuine friendship. I would like to thank my North Reading town community friends, along with my Rhode Island Johnson & Wales alumni friends, for their motivation to ‘kill it.’ I would also like to recognize all of my students over the last four years for their inquiries about my progress and support for each step, as I shared milestones with them to demonstrate and encourage their own love for knowledge as a life-long learner.

I started this adventure a few months before I married my husband; the last four and a half years have been woven into the tasks to accomplish this final goal. During that time, we bought a house, got our adorable black Labrador retriever, Aja, both started several new jobs, and finally—against all odds—got pregnant. John Louis joined our family in September of 2014, slightly alternating my ability to complete things in the timely fashion to which I was normally accustomed. I would like to recognize and thank my husband, Ronny Bagnera, for being in my corner to care for our son. I would like to thank my parents and grandmother for their love and encouragement. My family has been a strong group of supportive individuals.
Finally, I would like to dedicate this dissertation to my son, John Louis Bagnera, for all that he has taught me in the most important role of my life, as mother. I can only hope that he too will find a way to accomplish all of his dreams and goals.