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An Empirical Study in the U.S. Hotel Industry: How Quality Assurance, Customer Satisfaction, Brand Signaling, and Guest Loyalty Impact Revenue

Kevin Morgan

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An Empirical Study in the U.S. Hotel Industry: How Quality Assurance, Customer Satisfaction, Brand Signaling, and Guest Loyalty Impact Revenue

by

Kevin John Morgan

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ACCEPTANCE

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ABSTRACT

An Empirical Study in the U.S. Hotel Industry: How Quality Assurance, Customer Satisfaction, Brand Signaling, and Guest Loyalty Impact Revenue

by

Kevin John Morgan

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Chair: Danny Bellenger

Major Academic Unit: Executive Doctorate in Business

The hotel industry is a major area of the U.S**.** economy, contributing nearly $176 billion to Gross Domestic Product in 2014 (AHLA, 2017). For large hospitality brands (franchisors), quality and customer satisfaction are important in driving customer stays or occupancy. In this study, secondary data from a large hospitality company (with more than 3,600 hotels) with a portfolio of brands were used to explain the relationship between revenue, or RevPAR, and market share (Smith Travel Research [STR] Revenue per Available Room Index or known as RPI), customer satisfaction, and quality assurance moderated by brand signaling and loyalty. Looking through the lens of the Expectation Confirmation Theory (ECT), this study shows how expectations and satisfaction play a role in predicting revenue implications based on customer behavioral decisions. The model proves the relationship between the various aspects of the customer experience, including how quality assurance scores measure hotel delivery and execution, which standards are set by the brand, and the extent to which customers' expectations are moderated by brand signaling and loyalty. Additionally, how resulting disconfirmation (or confirmation) measured by customer survey results of meeting or not meeting expectations, and satisfaction which are determinates of post-purchase adoption or repurchase (market share

captured). This study proves that brand managers should spare no costs to ensure that quality assurance is a priority to protect the tangible and intangible aspects of their brands. The data support that on average, a 10-point increase in Quality Assurance results in up to a $1.05 increase in RevPAR; a 5- to 8-point increase in Customer Experience (Overall Experience and Problem Free Stays) results in up to a $1.05 increase in RevPAR; a 4- to 8-point increase in Customer Recommendation results up to a $1.05 in RevPAR; and a 2-point increase in Market Share (RPI) results in up to a $1.05 increase in RevPAR.

INDEX WORDS: Hotel, Hospitality, Quality Assurance, Customer Satisfaction, Customer Recommendation, Guest Experience, Revenue Per Available Room, RevPAR, Occupancy, RevPAR Index, Smith Travel Research, STR, Average Daily Rate, ADR, Market Share, Franchising, Brand Management, Brand Signaling, Branding, Loyalty, Expectation Confirmation Theory, ECT, Agency Theory

I INTRODUCTION

I.1 Hotel Industry

The hotel industry is a major area of the U.S. economy, contributing nearly $176 billion to Gross Domestic Product in 2014 (AHLA, 2017). The U.S. hotel industry represents $1.1 trillion dollars in sales (hotel revenue, guest spending, and taxes), services five million guests per day, and employs eight million American workers (AHLA, 2017). With nearly 54,200 hotel properties in the U.S., 61 percent of hotels are small businesses, supporting $355 billion in labor income and capital investments of $13 billion (AHLA, 2017). This multi-trillion-dollar business depends on leisure customers to spend their discretionary incomes on travel, business travelers to opt for face-to-face experiences over virtual ones, conventions and large events, the government to invest in projects, and the economy to continue to thrive. Whether a hotel is owned by a single entity or controlled by a publicly traded company, customer demand drives the cycle of the business.

Hotel industry market segments are defined by chain scales of luxury, upper upscale, upscale, upper midscale, midscale, economy, and independents. Operator types range from owner companies and management companies to real estate investment trusts (REITs), developers, and asset managers. This broad base of owner profiles combined with market segments creates a dynamic industry that caters to all walks of life. The dynamic environment as a result of this dichotomy allows for brands to expand through franchises and become household names. As a result, these brands are afforded the luxury to grow around the globe and thrive with innovation and strength.

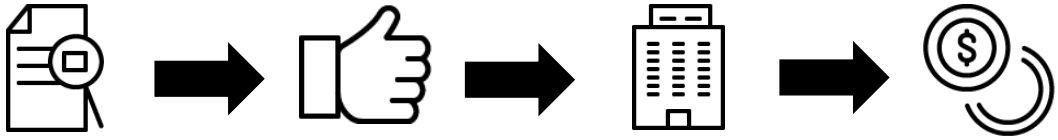
The majority of U.S. hotels are franchised. The relationship between the franchisor and franchise owner is critical to performance with both stakeholders, which includes understanding

the factors that contribute to customer (or consumer) satisfaction, quality, and revenue. The hospitality industry has its roots in creating memorable experiences for travelers coming from places near and far. Whether travelers are on a budget or are making the trip of a lifetime to destinations around the world and expecting the highest touch, the industry caters to all types of discerning travelers. Engrained in customers is an expectation associated with an experience, which is the foundation for customer experiences.

I.2 Quality and Customer Satisfaction

For large hospitality brands (franchisors), quality and customer satisfaction are important in driving customer stays, or occupancy. If a hotel room is left unsold, that room night is lost forever. Therefore, proper management of the hotel and strategies to drive business are imperative to performance. The key in franchising is to provide a product the customer can depend on, to drive revenue, and ultimately to capture market share (Smith Travel Research Revenue Per Available Room Index also referred to as RPI). For publicly traded hotel companies, driving market share (RPI) and average daily rate (ADR), or the average of what is charged to the customer, contributes to driving stock price and shareholder value. This cycle of managing hotel performance has an impact on investors of not only franchises but also the franchisors. Franchise organizations' primary sources of income are from royalty fees or percentages of revenue collected by the franchisees. For every room sold, the franchisor collects a percentage of the revenue from the franchisee, typically from the room rate.

Table 1 Core Variables for Analysis



Quality Assurance	Customer Satisfaction: Experience and Customer Recommendation	Market Share (RPI) (and hotel occupancy)	Revenue per Available Room (RevPAR)

In this study, big data from a large hospitality company with a portfolio of brands were used to explain the relationship between revenue, or RevPAR, and market share (RP)I; customer recommendation; customer satisfaction: experience; and quality assurance moderated by brand signaling. Customer Satisfaction: Experience is the measurement for meeting customers' expectations while at the hotel, which results in customer recommendation. Customer recommendation is the post-purchase intent formed by the customer for future purchases, which directly drives market share and occupancy, and is impacted by loyalty. Quality assurance measures a hotel's compliance with brand standards that measure customer expectations. Compliance with standards and expectations results in higher satisfaction. This sequence of relationships explains how hotels drive RevPAR.

I.3 Big Data to Determine the Relationship

A considerable amount of research concentrates on the behavioral aspects of hospitality and customer satisfaction, but there is a noticeable gap with long-term studies using empirical data. This research deliberates on the quality assurance, customer satisfaction, and hotel performance associated with hospitality in the U.S. hotel community. The literature has a distinct

gap in linking the Expectation Confirmation Theory to the multi-unit analysis of a large hospitality company over multiple years. This study contributes significantly to research not only in hotels but also from a customer service perspective overall in providing year-over-year analyses of how hotel customer satisfaction and quality influence customer behavior through the lens of the Expectation Confirmation Theory. Additionally, this study is the first of its kind in linking (and delineating) the effects of customer satisfaction of brands with more than 3,600 hotels (units) based on brand signaling over multiple years.

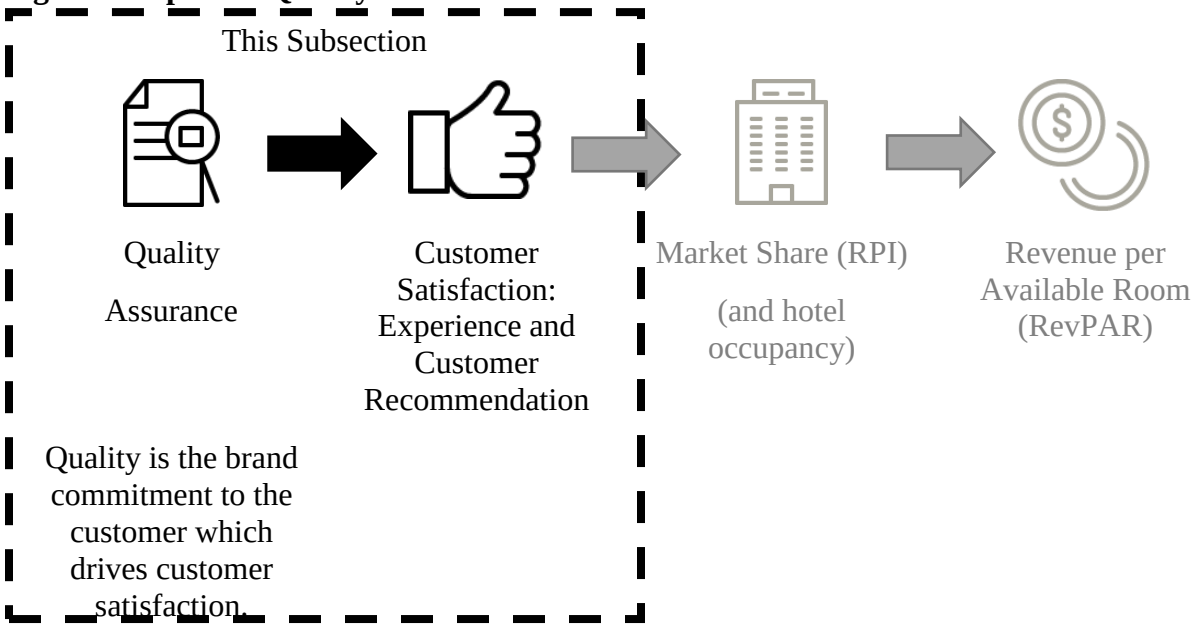
II LITERATURE REVIEW

The customer life cycle has factors that affect experience, perceptions, and decision-making. The following sections outline the sequence of relationships in this study that were analyzed to determine implications on Revenue per Available Room (RevPAR). With each subsection, a discussion outlines the influencing factors, and each larger section following provides a deep dive into the aspects that support these relationships. The subsections include Quality Assurance; Customer Satisfaction: Experience; Customer Recommendation; Market Share (RPI); and RevPAR.

II.1 How Quality Assurance Drives Customer Satisfaction and Recommendation

Quality assurance is focused on the brand standards. This is essentially the expectation of the customer. The standard defines what the customer expects to experience. This experience expectation (quality) determines their satisfaction (did the hotel meet or not meet expectations).

Figure 1 Impact of Quality Assurance on Customer Satisfaction and Recommendation



Moreover, Oliver (1977) and Churchill and Surprenant (1982) stated the case that quality precedes customer satisfaction, and others have suggested that experience affects attitude. Therefore, perceived quality impacts satisfaction. The literature supports a number of focus areas for where hotel guests perceive quality:

- Oh and Kim (2017) defined satisfaction components of the guest stay to include cleanliness of the room, maintenance, team member friendliness, and knowledgeable team members.
- Cadotte and Turgeon (1988) conducted an analysis of complaints and found that the top areas are related to the guest room, food quality and speed of service, team member knowledge, quietness of accommodations, and cleanliness of the hotel.
- Dube, Enz, Renaghan, and Siguaw (1999) results found that quality of service, guest room design, and physical property are all related to satisfaction.

Regardless of the relationship to one another, the literature clearly demonstrates that there are cases to be made that quality measures are critical to satisfaction. Fornell, Johnson, Anderson, Cha, and Bryant (1996) referenced the American Customer Satisfaction Index (ACSI) in regard to overall customer satisfaction, which has three antecedents: (1) perceived quality, (2) perceived value, and (3) customer expected antecedents for customer satisfaction.

The first customer satisfaction determinant that is expected to impact customer satisfaction is perceived quality or performance (Fornell et al., 1996). Understanding the definition of quality and value to hotel guests allows firms to excel in marketing, segmentation, planning, and pricing (Zeithaml, 1988).

> This is similar in spirit to the position taken by Zeithaml (1988) in summarizing an extensive review of the literature on quality: "Perceived quality can be defined as the consumer's judgment about a product's overall excellence or superiority."

Fornell et al. (1996) cited in their research that long-term profitability is dependent on customer loyalty and creating a long-term relationship with the guests. This is in the context that the relationship with the guest (buyer) can create a ”warning signal” about future financial performance, and this is impacted by customer satisfaction (Fornell et al., 1996). Anderson, Fornell, and Lehmann (1994) further elaborated that customer satisfaction is a “function of (1) current quality, and (2) past satisfaction.” The relationship with quality and customer satisfaction in these examples go hand in hand. Although there is research that supports both sides of the impact of quality and customer satisfaction; it is noteworthy to reiterate research from Yeung, Lee Chew, and Ennew (2002) that suggested the individual-level customer measures versus firm-level measures create complexities with the measurement of satisfaction and performance.

II.2 Customer Satisfaction AND Quality Assurance: The Chicken or The Egg

The relationship between quality and customer satisfaction is complex in nature with some authors suggesting they are closely related, even going as far as comparing them to “Siamese twins” (Danaher & Mattsson, 1994; Ismail, Dalbor, & Mills, 2002). However, many arguments are made in asking the question do they impact one another and which one causes the other. From a hotel perspective, some delineations are drawn between Quality and Customer Satisfaction: Experience and Customer Recommendation, and the logic that weighs on each of these (Table 2).

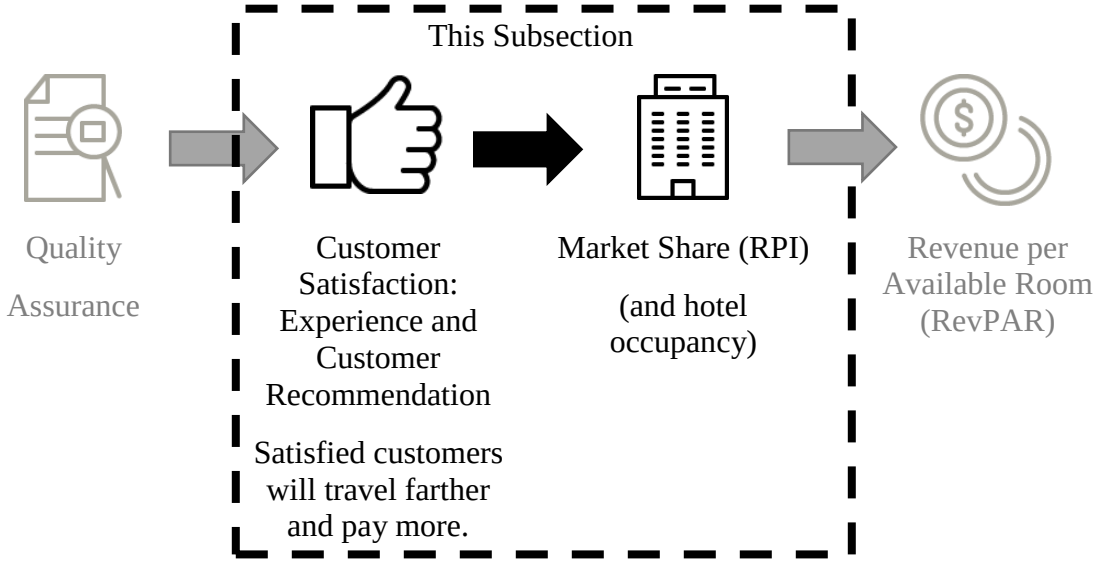
Table 2 Quality vs. Customer Satisfaction: Experience and Customer Recommendation

RESEARCH NOTATION	
 Quality Assurance	 Customer Satisfaction: Experience and Customer Recommendation
Is measured by the franchisor (or brand) and is focused on three aspects of the business: (1) compliance with standards as set forth by the brand, (2) cleanliness of product offering, and (3) condition of the asset.	Measurement of satisfaction by the customer (or guest) through surveys asking questions about aspects of the life cycle of the hotel experience – ranging from the quality of the hotel and room to the food and beverage served and to the friendliness of the staff on property.

II.3 How Customer Satisfaction Impacts Market Share (RPI)

Investing in hotels is a long-term business decision that involves some aspects of customer service, including the acquisition or attracting of guests, maintaining those guests, satisfying their expectations, and retention. Thus, successful hotel managers must understand the relationship between their hotels and guests, including services and offerings that drive intent to repurchase (Choi & Chu, 2001).

Figure 2 Customer Satisfaction Impacts on Hotel Occupancy



"Hospitality services are, for the most part, produced by humans, and consequently, no two guest stays will be precisely alike. Research in general marketing suggests that the variability in performance across different consumption experiences leads to increased uncertainty, and thus to decreased reliance on prior expectations" (Mattila & O'Neill, 2003). Consistent with the literature is support for the positive relationship between satisfaction of customers and performance (or profitability). The strength of the relationship sees significant scrutiny because of the difficulty with "comparing individual-level customer measures

(satisfaction and repurchase intention) with aggregate, firm-level measures" (Yeung et al., 2002). Firms are complex, and multiple aspects of the business impact a consumer experience, especially if each stay has the potential to be different. There is little dispute, though, about the positive relationship. Additionally, research shows that loyal customers may not necessarily pay close attention to the "actual service" of an establishment unless "something particularly bad or particularly good occurs" (Dube & Renaghan, 2000). Therefore, hotel guests look to experience consistency with each purchase. Customer satisfaction alone has evolved into a requirement for experiences that are more than the baseline expectations, and customers are shifting expectations to that of desiring "delight" (Yeung et al., 2002). The experiences create value in the customer's eyes. A study conducted by Dube and Renaghan (2000) measured loyalty and asked participants if they intended to stay at a hotel that created customer value; the responses of the study returned a 61 percent intent to return, whereas only 41 percent of those stays had no particular value created—representing nearly a 50 percent increase in loyalty.

> *"The principles that underlie the relationship between satisfaction and firm performance are well documented, based on the cost and revenue effects associated with increased loyalty and repurchase. These relationships are probably most neatly encapsulated in the concept of the service–profit chain, although their relevance extends beyond the service context alone"* (Yeung et al., 2002).

Perceived value in, "post-purchase decision-making showed immediate indication of customer satisfaction and intent to repurchase" (Oh, 1999; Zeithaml, 1988). This means that the

value created for guests has the immediate impact on the satisfaction created and loyalty garnered by the hotel and brand.

Anderson et al. (1994) concluded in their 1994 study on customer satisfaction and market share that the following should result:

- Increased loyalty for current guests,
- Reduced price elasticities,
- Insulation of existing customers from competitive efforts,
- Lower costs of future transactions,
- Reduced failure costs,
- Lower costs of attracting new customers, and
- An enhanced reputation for the firm.

"Loyal" means that more customers have the intention to repurchase and are retained for future business (Anderson et al., 1994; Zeithaml, 1988). The same goes for lower customer service, resulting in higher turnover and difficulty with retention, a higher cost to reacquire, and a decrease in price elasticity (Anderson et al., 1994). The same study with Anderson et al. (1994) also noted that changes in customer satisfaction in a single period impact future periods, which is consistent with the "cumulative nature of customer satisfaction"—but a firm's return on investment is affected by customer satisfaction.

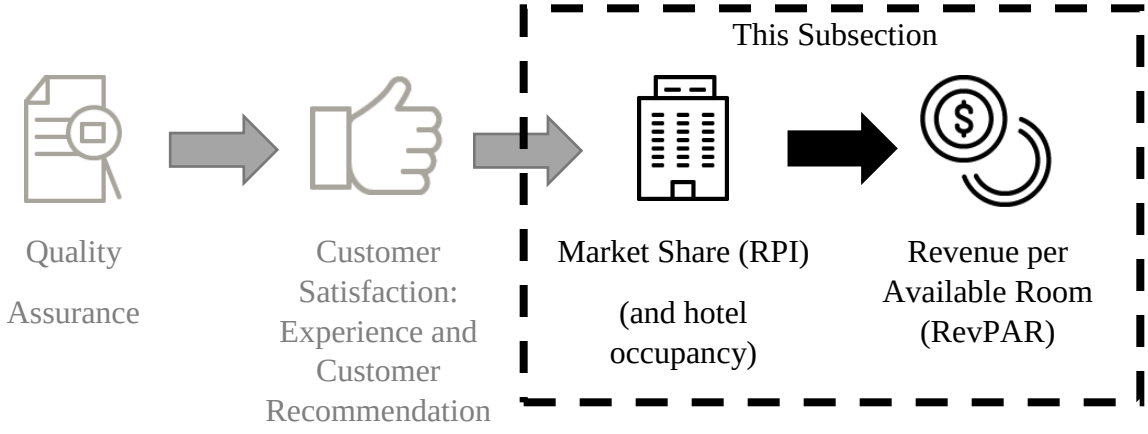
The relationship between customer service and driving financial performance is proven by a number of empirical studies. The relationship between satisfaction and customer intent is clear in both a practical sense and theoretical manner. Satisfied customers, "are more willing to pay for the benefits they receive and are more likely to be tolerant of increases in price" (Anderson et al., 1994). In a study conducted by Oh (1999), the research suggested that at the luxury hotel level, hotel managers (and franchisors and franchisees, in this case) must take note of the perceived value of their products and services in the context of customer service and

quality (Oh, 1999). The entanglements of customer satisfaction are imperative to the guest experience and measure the expectation of the customer (quality) and the actual delivery by the hotel (satisfaction).

II.4 How Market Share (RPI) Drives RevPAR

For hotel franchisors and franchisees, each guest room has one chance to be sold; once the clock strikes twelve, unsold rooms are gone forever. Market share (RPI) in the hotel industry is calculated by Smith Travel Research (STR), and the calculation is RevPAR Index = RevPAR / RevPAR Compset * (100). This metric focuses on the performance of the hotel from a RevPAR perspective and isolates other indicators that are outlined in the paper.

Figure 3 Hotel Market Share Impact on RevPAR



RevPAR Index (RPI, also referred to in the literature as Revenue Growth Index, RGI) is intended to evaluate the performance of property compared to a competitive set of locations. RevPAR comparisons can be deceiving because of the average daily rate (ADR) that hotels charge based on location and demand generators. RevPAR Index (RPI) can be a valuable indication of efficiency with revenue when looking at the hotel in comparison to other locations and the performance overall (Ciuca, Croitoru, Mandea, & Ion, 2011). For franchisors and

franchisees, market share has been at odds between the two stakeholder groups. For many franchisees, their beliefs are that market share is not tied directly to revenue performance, and it's a complexity of market conditions, competing locations, and myriad factors that muddy the water. There is no dispute that occupancy has always been an important variable related to RevPAR, but market share seems to have always had some questions about the relationship. In this study, market share (RPI) is proven to be critical for the overall performance of the asset. While occupancy and average daily rate are components of RevPAR, market share is a core determinant of the overall RevPAR performance for the hotel. If a hotel is performing above their comp-set from a revenue perspective, they ultimately have a higher market share index (RPI).

Since occupancy multiplied by average daily rate (total rooms revenue) is included in the RevPAR calculation, this variable is critical to performance. O'Neill and Mattila (2006) cited that during their study of nearly 1,900 U.S. hotels between 2002 and 2003, they uncovered that a hotel percentage of net operating income is most closely tied to occupancy—further citing that average daily rate has "strong influence" as well as market segment, age, and brand affiliation. While the importance of brand as it relates to the equation is addressed, occupancy is a critical factor associated with the performance of the franchisor and franchisee. Market share ultimately increases as occupancy and average daily rate increase.

As price elasticity is decreased and the greater rate is captured, the RevPAR advantage increases accordingly. In a study conducted by Enz, Canina, and Lomanno (2009), price elasticity was analyzed with hotels regarding price charge and impact on occupancy and RevPAR. Enz et al. (2009) showed implications to occupancy and RevPAR based on market

demand and optimizing hotel locations. This study intends to show that occupancy impacts RevPAR, and the research by Enz et al. (2009) supports the same.

In a study conducted by Russo (1991), a hotel's revenue picture is created from: (1) pricing decisions for each room and room type, and (2) changes to occupied rooms. If the equation for RevPAR is: RevPAR = Total Rooms Revenue / Total Available Rooms, the more hotel rooms that are sold, the greater the revenue captured, the higher the RevPAR. In simple terms, calculated:

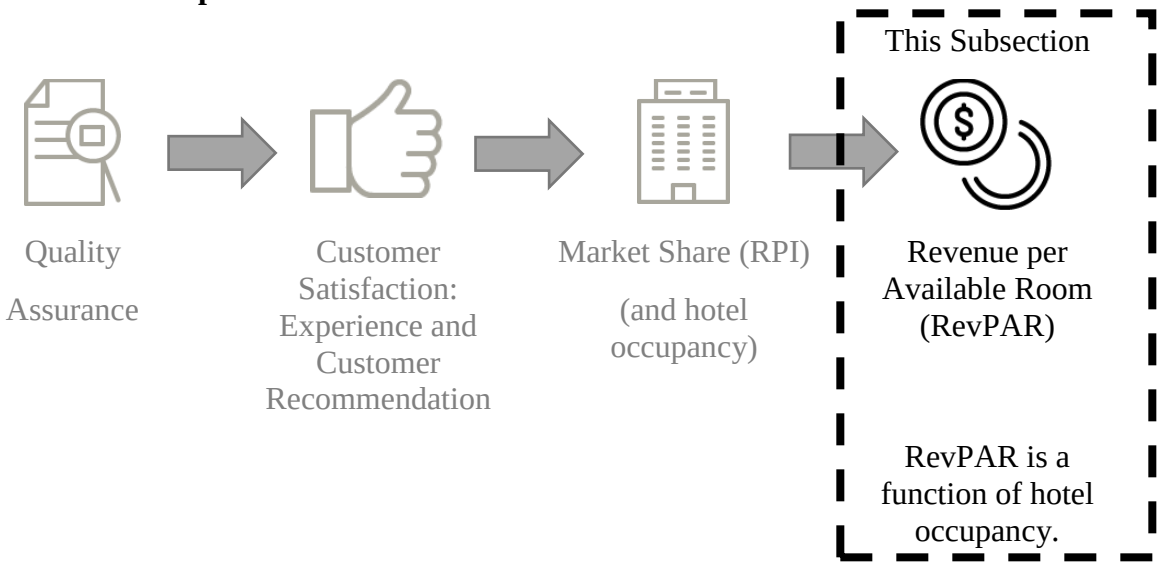
- If 10 rooms of a 10-room hotel are sold at $100 room rate, this equals $1,000 in revenue collected and RevPAR of $100.
- If 5 rooms are sold at that same 10-room hotel for $100, that is $500 in revenue collected and RevPAR of $50.

Every room sold generates revenue for a hotel and increases the RevPAR when all variables are held constant, and no complexities of revenue management are introduced. The connection between financial performance and occupancy is complex, but multiple studies have shown there is a relationship between profits and occupancy (Russo, 1991). Therefore, average daily rate, hotel occupancy, and RevPAR are all important factors when understanding how market share (RPI) is impacted. This study proves that not only does this relationship exist, but it is important in organizational performance for both the franchisor and franchisee.

II.5 Importance of RevPAR

Perhaps the single most important measured variable in the industry is Revenue per Available Room (RevPAR).

Figure 4 Focus on Importance of RevPAR



All aspects of the business, ranging from hotel managers to Wall Street, relying on RevPAR as a performance measurement, including industry analysts that use this for stock prices (Ismail et al., 2002). RevPAR is used to compare hotels, franchise brands, and portfolios in the hotel industry and serves as a tool valued by hospitality executives for top-line financial measures (O'Neill & Qu, 2006). The RevPAR calculation is derived from total revenue divided by total available rooms:

RevPAR = Total Room Revenue / Total Available Rooms

This calculation is essentially a performance efficiency measurement that allows the industry to measure how well hotels are selling rooms and optimizing the prices for those rooms sold. RevPAR is used for understanding historical performance, hotel valuation, and even incentives for hotel employees. While RevPAR is critical to measuring the hotel's performance, its limitation lies in the fact that it does not measure operating costs and may not provide a full picture of the hotel's profitability (e.g., fails to include revenue from sources other than room sales) (Zheng, 2014). RevPAR not only serves as a performance indicator for hotels but also acts

as a franchisor performance indicator (Chen & Lin, 2013). Prior research suggested that RevPAR does not predict a firm's stock price. However, RevPAR has been used to understand market segment variability with returns on investment (Ismail et al., 2002). Consistent with the literature, RevPAR serves as a measurement for understanding property performance. Consequently, the research arguments have been made that RevPAR measures both supply and demand (Gallagher & Mansour, 2000) by allowing both the availability and consumption of rooms to be measured against the revenue collected for those same rooms (average daily rate). RevPAR serves as the dependent variable and proxy for royalty fees collected, as this variable is a direct function of royalty fees.

II.6 Explaining the Experience with Quality and Customer Satisfaction

The relationship that exists between Quality; Customer Satisfaction: Experience, Customer Recommendation; Market Share (RPI); and RevPAR creates a sequence of relationships that explain how all the components fit together. These relationships are bound together in a seemingly logical manner and can be explained through two theories: (1) the Expectation Confirmation Theory, which articulates the guest relationship with each of the variables in the study, and (2) the Agency Theory, which outlines the headwind and tailwind forces that impact how the delivery of these variables is executed at the hotel level. Each of these theories is intertwined with one another to explain why these variables ultimately drive performance, generate RevPAR and profit for the organization, and increase royalty fees collected by the franchisor.

II.7 Expectation Confirmation Theory

The Expectation Confirmation Theory (ECT) states that expectations and satisfaction play a role in future customer behavioral decisions. From this model, this study highlights how

three components of the broader model relate to the hotel guest experience and explain how RevPAR is the benefactor of meeting or exceeding customer expectations. From pre-booking to on-property experience to post-stay rating, the purpose of this study is to articulate the relationships within the customer experience.

In reviewing the literature associated with the theory and industry trends, there are a handful of studies within the hotel industry related to customer satisfaction. Much of the research looks at the Expectation Confirmation (Disconfirmation), SERVQUAL, and other social cognitive theories as lenses for looking at customer satisfaction and employee satisfaction while on the job, including retention.

Ferrer (2009) used Structural Equation Modeling in a horizontal study with approximately 1,201 customers in different services, including some areas of hotels and restaurants. The study used expectations and confirmation (disconfirmation) as a premise but did not look at aggregate scores from multiple units. This study conducted by Ferrer (2009) supported the importance that expectations have on influence and satisfaction. In a related study, Ekinci, Dawes, and Massey (2008) used the antecedents defined by Oliver (1980) around satisfaction and predictive expectations as lenses for the SERVQUAL Theory to better understand customer behavior. In each of these studies, the outcome was that a customer's expectations and satisfaction predict future purchase behavior.

Additionally, Pizam and Milman (1993) wrote in their article about personal interviews and questionnaires used to understand 181 travelers from the U.S. to Spain. In the study, some factors were reviewed that included satisfaction and dissatisfaction. The purpose of the Pizam and Milman (1993) study was to explain customer satisfaction and dissatisfaction, conducted through questionnaires and interviews. The study supported an application of the theory to the

hotel industry. Moreover, the study by N. Torres and Kline (2013), From Customer Satisfaction to Customer Delight, looked at seven hotels in the Midwest through letters written related to customer experience. The study made a nod to the Expectation Confirmation Theory but only looked at the customer feedback as a mechanism for understanding the theory within hotels and the hospitality industry.

Each of these studies demonstrated the importance of the Expectation Confirmation Theory within the industry, but each of these studies and many others published lacked empirical support on a large scale over a longer time period at the unit level (hotel by hotel). This study uses empirical data to support the Expectation Confirmation Theory in explaining how the hotel experience drives revenue per available room.

II.7.1 *Framework of the Expectation Confirmation Theory*

At the core of customer behavior and satisfaction are: **(1) expectation:** preset expectation of hotel products or services performed, **(2) disconfirmation:** experience will either outperform or under-perform, and **(3) satisfaction:** post-purchase is a reflection of the match between expectation and disconfirmation, (Table 3) (Oliver, 1980). While this does not include the “attitudes” or ”intentions” that are resulting, this is a core aspect of customer consideration prior to booking a reservation with a hotel and leading up to the actual experience at the location.

Table 3 Expectation Confirmation Theory Definition (Oliver, 1980)

(1) Expectation	(2) Disconfirmation	(3) Satisfaction
The preset expectation of hotel products or services performed	Experience will either outperform or under-perform.	Post-purchase is a reflection of the match between expectation and disconfirmation.

The resulting satisfaction translates into attitude and intentions. These three components are essential to an understanding before elaborating on how this cycle works, as they are critical to the measurements for analyzing these relationships.

II.7.2 *Expectation*

At the core of customer behavior is "expectation"—meeting or not meeting the expectation is directly linked to satisfaction. Customer satisfaction occurs when the perception of the product or service performance matches the initial expectation (Oliver, 1980). When looking at the satisfaction or dissatisfaction of the customer, evaluation of the product or service by the customer needs to be tempered by the information they have received and knowledge that this impacts their expectations and resulting satisfaction (Spreng, MacKenzie, & Olshavsky, 1996).

It is important to note that satisfaction needs to be differentiated between individual attributes and overall satisfaction—meaning that the parts or individual attributes are not the same as being satisfied with the whole or overall satisfaction (Spreng et al., 1996). Within the guest experience at a hotel, each aspect of the hotel experience builds on one another; this overall guest experience contributes toward the bigger picture with regard to service, arrival, staff, product, and quality assurance (e.g., standards and cleanliness). Both anticipated characteristics and attributes will serve as a baseline for how the association is made with the product and have,

"an expectancy disaffirmed [disconfirmation] will be a source of psychological tension that will lead a person to reject or dislike the unexpected event [Satisfaction]" (Weaver & Brickman, 1974).

From an expectations perspective, Spreng et al. (1996) highlighted the consumer's assessment of expectations and drew a comparison to "expectation congruency." This is the comparison of actual performance to expectation, similar to the ratio noted by Oliver (1980). The simple fact that customers' perceptions drive customer satisfaction weighs heavily on how customers perceive a product. When looking at the context of Spreng et al. (1996) and this perspective on brand strength, there is a direct tie to the importance of customer perception. In this study, the measurement of brand strength comes to light in the form of consumer perception of the brand as measured by a third party.

Both pre-purchase and pre-adoption expectations are the foundation for which the product or service is judged by the consumer (Oliver, 1980). Satisfaction comes in two forms in the customer's eyes: (1) the product or service itself, and (2) the information the customer receives to set the expectation (Spreng et al., 1996). In the light of hotel performance, brand strength impacts the perceived performance and sets the tone for the actual experience. Therefore, consistency at the hotel is critical to expectations. And any marketing promises or brand image promises serve to reinforce expectations. From expectations and performance perspective, the literature does not have a clear-cut model of what *should* happen. Parasuraman, Zeithaml, and Berry (1988) suggested that the *should* aspect of the expectations is based on "belief probabilities" or the range of satisfaction.

Quality Assurance scores measure hotel delivery and execution, which are set by the brand. The customer's expectations are moderated by **Brand Signaling**. At the hotel, Quality Assurance scores measure compliance with **Brand Standards, Cleanliness, and Condition** of the asset. Quality Assurance audits are conducted at all hotels. Therefore, this score is a measurement of what the customer or guest, in this case, expects.

II.7.3 *Disconfirmation*

Disconfirmation is the evaluation (or judgment) that a customer makes on a product or service during the experience. And confirmation is essentially the midpoint on the continuum of disconfirmation—not unfavorable, but not favorable (Oliver, 1977).

Table 4 Positive and Negative Disconfirmation (Oliver, 1977)

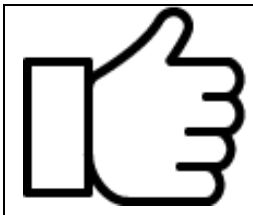
👍 *Positive Disconfirmation*	👎 *Negative Disconfirmation*
The outperformance of consumer's expectation resulting in "increased post-purchase or post-adoption satisfaction."	*The under-performance of consumer's expectation resulting in "decreased post-purchase or post-adoption satisfaction" or increased dissatisfaction.*

This process of evaluating the product or service to the customer's original experience is where attitudes of post-purchase and post-adoption are rooted. Moreover, both the expectations

of the customer and the disconfirmation experienced are necessary to fully understand the post-exposure evaluation that is made (Oliver, 1977). This is best explained as the attitude of the customer that is revised or changed based on expectation and disconfirmation.

Upon experiencing the product or service, the customer alters their position and changes expectation based on the disconfirmation. Therefore, according to Oliver (1977) and the basis of the theory, positive disconfirmation is a result of the disconfirmation *exceeding* the initial position, which results in post-purchase or post-adoption satisfaction. An important notation related to customers' experiences is that they can still, "feel they have better than expected performance (e.g., whiter than white)," even when they enter into situations where their expectations are high (Oliver, 1977). Within hotel performance, there is a degree of loyalty and experience the customers may receive that draws them to return to specific locations. Whether this is service or culture related, the fact of the matter is that locations that outperform others still exceed customer expectations time and time again. This cross section of loyalty and driving occupancy with return visits is where those hotels that meet customer needs excel and outperform other locations.

According to Tajefl (1978), satisfaction is both cognitive and emotional—there is rarely neutrality of this categorization. Within our pre-evaluation criteria, already known are the "things we like" and the "things that we don't like," which form our perspectives on satisfaction when we make an evaluation of the product or service (Tajefl, 1978).



Customer Survey questions of **Overall Experience** and **Problem Free Stays** measure disconfirmation (or confirmation). For this study, the

	measurement comes from customer survey results and guest complaints made to a centralized desk.

II.7.4 *Satisfaction*

Satisfaction is a combination of expectation of the product or service and the disconfirmation experienced, meaning that once the customer experiences the product or service, they are able to form disconfirmation—"did this meet my expectations or not." In this sequence, satisfaction is measured by the customer at the point of experience.

> *Satisfaction can be determined by subjective (e.g., customer needs and emotions) and objective factors (e.g., product and service features) (Holjevac, Marković, & Raspor, 2009).*

Continuing with the literature on satisfaction and the theory, suggestions were made, mainly by Helson with concepts supported by Oliver, "…the adoption phenomena [consists of] (1) the product itself including one's prior experience, brand connotations, and symbolic elements, (2) the context including the content of communications from salespeople and social referents, and (3) individual characteristics including persuasibility and perceptual distortion" will influence post-purchase and post-adoption (Helson, 1964). This supports the fact that the customer's satisfaction is a result of combining the expectation of product or service and the resulting disconfirmation and/or confirmation. Moreover, since the expectation and disconfirmation occur at different points in time, they are weakened naturally, or the effect is reduced (Oliver, 1977).

> *First, the product usage experience itself may serve to interfere with the retention of expectation levels and, if usage takes place over a period of time, the time interval may enhance forgetting. Second, because aroused disconfirmation is in closer temporal proximity to the post-exposure evaluation, its effect may be greater than that of expectation* (Oliver, 1977).

From Oliver (1980), the model of antecedents and consequence of satisfaction flow more formally from a few areas—whether they are expectations, attitudes, and intention—this is all rooted with the end decision in mind. The article discussed attitude and intentions below but related to the hotel industry, satisfaction with the experience comes to life through the customer (guest) experience. Coupled with attitude and intention, this impacts decision-making with a choice of location, which further adds depth to understanding brand strength and consistency.

With relationship to Weaver and Brickman (1974), when expected positive experiences are met with individuals with overall high expectancies, individuals are more satisfied. With repeated instances of disconfirmation, the outcomes detract from the satisfaction of the individual. The literature further elaborated that many studies have shown that customer satisfaction has both direct and indirect impact on business performance and profitability (Anderson et al., 1994; Yeung et al., 2002).

> *According to these findings, customer satisfaction increases customer loyalty, influences repurchase intentions and leads to positive word-of-mouth [or recommendations] (Holjevac et al., 2009).*

When looking for products and services outlined in the Expectation Confirmation Theory, a noteworthy clarification by Ekinci and Riley (1998) was made around satisfaction. Related to experience, the subjectivity of the intangibility of services (how customers are treated) is greater than that of physical products (Ekinci & Riley, 1998). Therefore, the product or asset is the hotel, and the service that customers experience can be viewed differently. Looking at the survey data around customer satisfaction is critical in understanding the relationship between those questions related to the product itself and those related to the experience or intangible aspects.

Customer Survey questions on **Helpfulness of the Hotel Staff**, **Intent to Return**, **Value for Price Paid**, and **Recommend Hotel** are considered determinates of post-purchase adoption or repurchase.

II.7.5 *Attitude and Intention*

Product and service perception create attitudes toward post-purchase and approval. Much of the literature concludes that "expectations are paired with disparate performance," whereas others view this, "as a comparative process culminating in an immediate satisfaction decision" (Oliver, 1980). Regardless, the perception and behavior of the customer are a direct result of the comparison and perceived satisfaction. This comparison of assessment between the expectations and performance is subjective in nature but ideally needs to result in expectation agreement (Spreng et al., 1996).

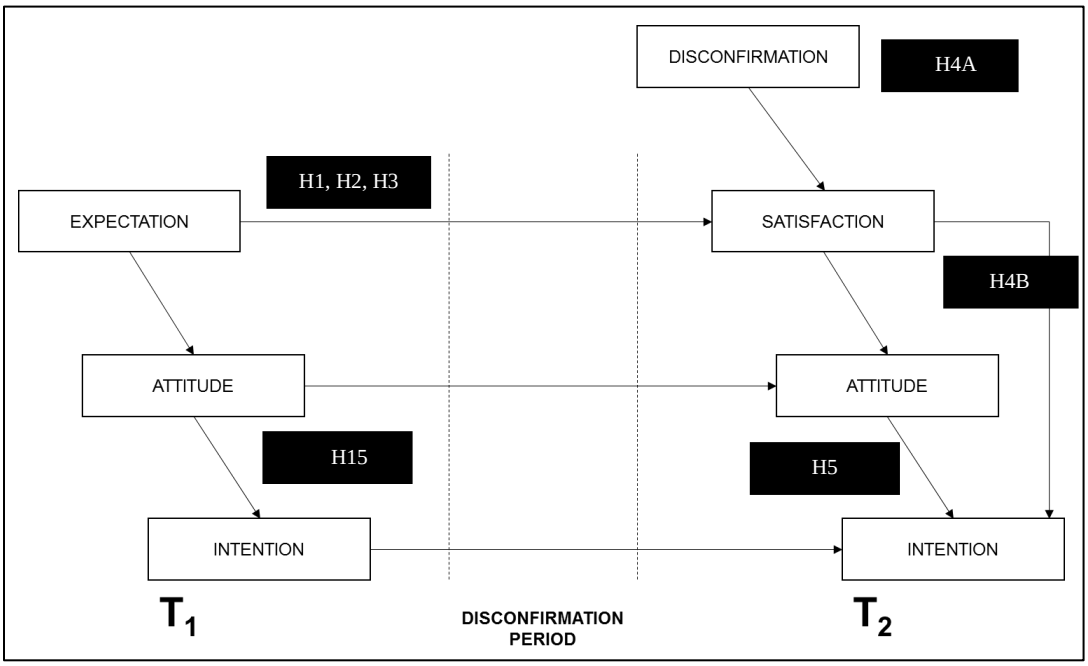
These outcomes impact both post-purchase and adoption behaviors by the customer based on whether the service (or product) meets or does not meet the customer's expectations (or disconfirmation). Moreover, "most investigators have emphasized the comparison between unexpected success and expected failure and have construed the disconfirmation effect as requiring that subjects prefer an expected failure to an unexpected success" (Weaver & Brickman, 1974). Expectations impact pre-purchase or pre-adoption perceived performance.

Ultimately, the Attitude and Intention are measured by **Market Share (RPI)** captured by the hotel. However, reference Section 2.7.4 for alignment with Helpfulness of the Hotel Staff, Intent to Return, Value for Price Paid, and Recommend Hotel for Satisfaction for Attitude and Intention.

II.7.6 *The Expectation Confirmation Theory–related to Hotel Guests*

The hotel industry is built on the platform of hospitality and customer experience. Every aspect of a guest stay is based on a combination of human interactions and the product offering (furniture, fixtures, and equipment) that make up the brand requirements. As customers' progress through the experience, these determinations of meeting expectations, obtaining satisfaction, resulting in attitudes and intention (from before and after experience) impact intent to return and repurchase. More importantly, how each of these aspects unfolds also impacts brand perception (or strength) and hotel performance. This cycle closely follows the diagram from Oliver (1980), as such:

Figure 5 A Cognitive Model of the Antecedents and Consequences of Satisfaction Decisions (Oliver, 1980)



From the diagram and for hotels, expectations are either met or not met (Table 5). This translates to attitude and intent to purchase in Time (1) versus Time (2). The navigation as explained in common terms is as follows:

Table 5 Explanation of Resulting Intention to Purchase (Oliver, 1980)

The Theory	*The Translation*
When you attempt to purchase a product or service initially, you have a preset "attitude" of how you think the service or product will perform. Your "attitude" is a function of your "expectation," meaning what you expected will determine your "attitude." Time 1 Attitude (t_1) = *f* (expectation)	*You think you know how the product and service will perform; that's your "attitude."*
Your "satisfaction" is based on if your "expectation" was "disconfirmed (or confirmed)"—meaning did the product or service meet your "expectation." Satisfaction = *f* (expectation, disconfirmation)	*Whether you are "satisfied" is based on if the experience met your "expectations."*
During the next purchase, your "attitude" will be a function of the "expectations" from Time 1. Your "attitude" for repurchase the second time will be based on the combination of "attitude" and "satisfaction" from Time 1 or your first purchase. Time 2 Attitude (t_2) = *f* (attitude (t_1), satisfaction)	*The next time you purchase the product and service, your attitude is based on the "expectation" from the first purchase and if you were satisfied.*
Your future "intention" is based on the "attitude" from Time 1 which merges with your "satisfaction" and "attitude" from Time 2. Purchase Intent: Intention (t_1) = f (attitude (t_1)) Intention (t_2) = f (intention (t_1), satisfaction, attitude (t_2))	*If you're happy with the purchase the first time, then you'll have "intention" to purchase again.*

For hotels, this is of paramount importance, as demand generators (industry term for new business) require significant time and human capital investment—sales, marketing, and other

areas. When looking at satisfaction and its relationship to expectation levels, consideration needs to be made around time. As time passes, there are higher levels of "forgetting" (Oliver, 1977). For customer survey results, this means that acquisition of sentiment about the stay is imperative near the time of occupancy and, more importantly, feelings of the experience change based on the time between hotel stays.

Additionally, customers' understanding of what they should expect and resulting intentions in the future are impacted by both marketings of the brand and customers' perceived understanding of the brand, and the product itself. In the franchise community of hospitality, variation from location to location can have a significant impact on trust in the brand by the customer. One area that must be introduced to the equation is the concept of customer distrust. Distrust is based on the misalignment of marketing to and communications with the customer about the product and the actual experience. Distrust in hotels is important because the majority of hotels are franchised, meaning that the operator of the hotel is not the same entity as the brand. The brand or franchisor relies on the franchisee to deliver the brand tenants to the customer. When there is a deviation from the standards or expectations set by the brand, trust issues can be created with the customer—especially when experience differs between hotels. The franchisor and franchisee relationship can be explained by the Agency Theory, which complements Expectation Confirmation Theory in explaining how quality and customer satisfaction relate to hotel performance (Table 6).

Table 6 Difference between the Expectation Confirmation Theory and the Agency Theory

 Expectation Confirmation Theory	 Agency Theory
The customer has set the expectation, and after they have experienced the service (or product), the post-purchase decision is made.	Franchisors (or the brand) do not have direct purview of the execution of the standards, which can impact the customer experience between hotels if the franchisee shirks or free rides.

The relationship between the Expectation Confirmation Theory and the Agency Theory creates the dynamic for how the guest experience occurs from hotel to hotel. Core to the experience and relevant to Expectation Conformation Theory, it is noteworthy to reference how the "distrust" component of the Expectation Confirmation Theory is an underlying factor related to the Agency Theory.

II.7.7 *Distrust: Implications on Perceived Performance and Satisfaction*

Distrust is a misalignment of the customer's perceptions of the product based on marketing, advertising, or other means from which an individual form an opinion of experience versus the actual experience with the product or service. From a customer perspective, expectation and experience are continuous. When the aspect of outside influence enters the equation (e.g., marketing and experience at another location that varies), the concept of distrust can be introduced. For hotel franchisors and organizations with multiple units, distrust is relevant

and meaningful. Consistency between hotels is important to customer experience, and inconsistent hotels have implications on expectations.

As stated, distrust is the result of products or services failing to meet the expectation of the customer but is driven by expectations created by marketers or the brand. Distrust is, "capable of inducing broad, persistent, negative biases in consumer judgment" (Darke, Ashworth, & Main, 2010). Moreover, important to experience, "perceptions lead to much broader carryover effects that extend not only to different products from the same firm but also to very different products from different firms" (Darke et al., 2010).

> *"Roehm and Tybout (2006) showed that scandalous product failures carry over to closely related competitors selling similar products (e.g., failure by Burger King carries over to McDonald's), but not to competitors selling somewhat different products (e.g., failure by Burger King does not apply to Dairy Queen)."*

This further supports that "hotel to hotel" or "franchise location to franchise location" experience is necessary and resulting satisfaction and even post-adoption have implications in a much broader way. Research related to expectation further supports that with the example set forth by Roehm and Tybout (2006), judgments related to confirmation bias are important to behaviors (Darke et al., 2010). Additionally, distrust also invokes other bias with products and services, being that negative disconfirmation results in generalizable distrust with the product or service. Consequently, the resulting effects with positive disconfirmation do not have the same effect (Darke et al., 2010).

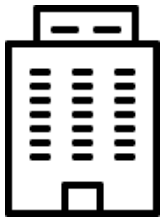
> *Rather than responding favorably to unanticipated superior performance or unfavorably to an unexpected inferior product experience, subjects appeared to distort performance to coincide with their expectations (Oliver, 1977).*

Therefore, disconfirmation occurs after the product exposure, and cognitive reaction follows after that. With hotels and a broad number of locations that are placed globally, the customers' expectations hold true at each location with the name on the exterior of the building. Managing this consistency is imperative toward ensuring that expectation and disconfirmation are positive.

With hotel performance and the nature of hotel enterprises, the dynamics of franchising become imperative to understanding. In hotels, customer experiences are shaped by each aspect of the Expectation Confirmation Theory. Given that the majority of hotels are franchised, consistency between hotels becomes critical. Understanding the relationship between the franchisor (brand) and franchisee (operator) is at the center of ensuring customer expectations are met. As such, franchisors can benefit from better understanding of hotel performance indicators to better manage franchisees and to make better decisions related to franchise standards, new hotel development deals, and systems to monitor enterprise performance.

II.8 Franchising and the Role of the Agency Theory

Franchising is where the guest experience with the Expectation Confirmation Theory meets delivery with the principal-agent relationship of the Agency Theory.



The Franchisee (licensee of the brand) is responsible for the execution of the hotel Quality standards. The Franchisee is responsible for the experience, its consistency, and the delivery of the expectation the customer possesses.

Consistency between franchisees is critical to ensuring that guest expectations are met since the global hotel industry is largely franchised. Franchising makes sense given the number of markets that have a demand for hotels and lodging. From an organizational perspective, allowing entrepreneurs to grow the brand (or franchise) in turn allows organizations to expand faster and in more locations. The organizational form of franchising frequently is leveraged in retail and services that possess a need for decentralized operations with multiple locations, much like hotels (Michael, 2000). In 2016, nearly 800,000 franchises existed in industries ranging from hotel to car dealerships to food and beverage outlets, representing nearly nine million jobs and $541.1 billion in Gross Domestic Product (franchise.org, 2017).

Franchising (as defined by the U.S. Department of Commerce)

"Franchising is a method of doing business by which a franchisee is granted the right to engage in," the offering, selling, or distributing of goods or services under a marketing format which is designed by the franchisor. "The franchisor permits the franchisee to use the franchisor's," trademark, name, and advertising (Kostecka, 1987).

Brickley and Dark (1987) articulated franchising as the "…equivalent to the leasing of an intangible asset (the brand name)." The concept of franchising allows local franchisees to assist with three resources to the firm: (1) the expertise of the managers, (2) the market knowledge of the local area, and (3) the capital (Oxenfeldt & Kelly, 1968). In terms of hotels and hospitality, the franchise or brand resonates with customers and provides a level of comfort around consistency. However, franchising allows for control for the franchisee to execute on the quality and trust they deliver on the tenants of the brand standards; they are also trusted with the brand value itself. Brickley and Dark (1987) further elaborated that interest in the firm, specifically around quality and product reputation, cannot be expected of all franchisees.

Much of the literature discusses the role that franchising plays in the growth of organizations. Unlimited needs and limited resources give way to finding ways for companies to continue growth, and, in many cases, this comes through the execution of franchising. Brand affiliations provide confidence to customers in the product, specifically with uniformity (Brickley & Dark, 1987).

II.8.1 *Role of Franchising in Hotels*

As stated before, within the hospitality industry, many hotel locations are franchised—hotel owners purchase the rights to the franchise license and operate on behalf of the franchisor. In some cases, franchise owners operate multiple locations and multiple brands, in locations spanning the globe. Diversification in most instances makes sound business sense to insulate the franchisee from the ebbs and flows of the economy. And just the same, the choice of the franchisor to franchise locations is essentially a form of scarcity (Hua & Dalbor, 2013),

unlimited needs, and limited capital; yet there is a need to grow and expand on the franchisor's behalf. Frequently, franchise chains leverage franchising due to limited capital (Bradach, 1997).

The delicate balance by the franchisor of monitoring execution of performance and quality of the asset and unit growth is an everyday activity.

> *Because today's hotel franchisees are as quick to change their Brand loyalty, it may be more important than ever for hotel Brand executives to maintain consistent Brand quality (i.e., guest satisfaction) (O'Neill & Mattila, 2004).*

Performance and quality are achieved through a multitude of areas, including factors that impact the guest experience and create loyalty. While bottom-line performance can be accomplished through cost savings, and marketing and sales certainly carry significant weight, marketing and sales are not part of this study and could be looked at with future research. Franchisors are keen to develop programs and focus on driving the top-line revenue, whereas franchisees must balance the top line with cost and everything that contributes to gross operating profit. The franchisee has important motivations to retain the brand, but asset performance is a priority over franchise chain performance (Zhang, Lawrence, & Anderson, 2015). The motivations of the franchisor versus franchisee are critically important with how execution and ultimately quality are delivered at each hotel.

As the franchisor grows and the number of outlets that a franchisee owns grows, complexities with monitoring quality are created. For those same capital scarcity reasons, multi-unit franchising has become the primary ownership form. Oftentimes, franchisee attention or monitoring is lost (or diminished) with multi-unit arrangements (Grünhagen & Mittelstaedt,

2005). As portfolios grow, with no direct authority in the franchise relationship, chains typically resort to influence rather than threats of contract franchise license termination (Sorenson & Søensen, 2001). In this case, influence is not always the most efficient way to ensure that quality compliance occurs. And the literature aligns with the fact that growth may be the goal of the franchisor, but it conversely has implications for monitoring and managing franchisees. Setting expectations around the relationship between the franchisor and franchisee are important, specifically with regard to regulation of interactions (Grünhagen & Mittelstaedt, 2005). Understanding that the needs of each party are critical and structuring the relationship as such ensure success.

II.8.2 *Impact of Franchising on Quality*

The motivations of each entity determine how they approach the business and compliance with quality and brand standards. While there is no suggestion that this is the majority, the slippage of quality can occur with growth. Research conducted by Michael (2000) discussed franchising implications specifically related to quality, and its ”detrimental impact on system quality.”

> *In that study, quality was negatively linked to the percentage of franchising in both the hotel and restaurant industry. If hotel brands with a higher percentage of franchised properties may experience greater difficulty in controlling quality, then the lower guest satisfaction should be reflected in lower occupancy levels (Michael, 2000).*

In this case, looking at the motivations of the franchisee, their focus on gross operating profit (GOP) can motivate them to be selective with brand standards and compliance, which can translate to greater profitability (Carney & Gedajlovic, 1991). Included in this relationship is the

wherewithal of the franchisee and their management teams, which plays a critical role in the franchise success but also determines the success trajectory (Barthélemy, 2008). Understanding motivations and ensuring that the franchisees are equipped with the proper resources to be successful is imperative. Cai and Perry Hobson (2004) stated with their research that, "many entrepreneurs who seek growth overestimate their ability to achieve that growth and effectively operate the franchise." Congruence of goals and strategies is necessary between the franchisor-franchisee relationships. The franchise relationship is articulated through the Agency Theory, which demonstrates the principal-agent relationship.

> *Agency Theory is directed at the ubiquitous agency relationship, in which one party* ***(the principal) delegates*** *work to another* ***(the agent), who performs that work*** *(Eisenhardt, 1989).*

In order to optimize this relationship, the interest of the franchise owner and franchisor must be aligned. There is a whole sphere of literature on monitoring the principal-agent relationship; monitoring is simply a risk area related to understanding performance (Tikoo, 2002). An important part of franchising comes to light and was noted by O'Neill and Mattila (2004) if, "hotel brand executives continue to focus their growth strategies to a greater extent on franchising and brand management rather than actual property management, the issue of guest satisfaction could become an increasingly important factor in determining the ultimate revenue success of hotel brands."

II.8.3 *Role of the Agency Theory*

The Agency Theory explains franchising through the context of principal-agent—being

that the principal (franchisor) and agent (franchisee) frequently have conflicting goals based on personal interests (Eisenhardt, 1989). These goals come to life through the motivations and resulting values that each has toward the franchised brand:

- Principal (franchisor) sets the "brand image" that sets guest expectations.
- Agent (franchisee) delivers the experience (e.g., cleans the guest rooms and delivers the service, etc.).

Agency relationships are a result of the principal (franchisor) delegating authority on behalf of the brand to the agent (franchisee) (Combs, Ketchen, & Hoover, 2004). With the Agency Theory come "agency costs," which surface through areas such as monitoring [of quality] (Brickley and Dark, 1987). Conflict arises when monitoring costs exceed the benefits of the relationship (Eisenhardt, 1989).

The Agency Theory explains the complex relationship. For hotel franchises, managing a growing number of hotels with compliance with brand standards and programs requires mechanisms for monitoring. An argument is made with franchising that both the principal and agent have mutual goals. The franchisee often makes significant financial investments and has more at risk than the franchisor, so only competent entrepreneurs are positioned to take this type of risk (S. Shane & Foo, 1999; S. A. Shane, 1998). While the franchisee investment is at risk, there is significant motivation to perform.

The goals of the franchisor (principal) and the franchisee (agent) can be different—especially when it comes to focus. Franchisees can be tempted to participate in "opportunistic behavior[s]" through, "willfully disregarding the franchisor's goals in pursuit of their own entrepreneurial interests" (Gassenheimer, Baucus, & Baucus, 1996). Notwithstanding, franchisees have an incentive to work hard because their personal incomes are tied directly to the revenue and performance of their outlets (Barthélemy, 2008). However, when given the choice

of the interest of the chain or the individual franchise, Sorenson and Søensen (2001) suggested entrepreneurs likely invest locally in such aspects as local improvements that have the potential to tie directly to their bottom lines. Enter stage right the Agency Cost, which surfaces in two forms—horizontal and vertical agency costs (Combs et al., 2004). These costs are the specific headwind and tailwind friction areas that have immediate implications for quality.

Table 7 Horizontal and Vertical Agency Costs Related to Franchising

 Horizontal Agency Cost	 Vertical Agency Cost
Free-riding prevention and ensuring that no single franchisee is benefiting from the brand at the expense of nearby franchisees (e.g., reduction of staff to clean facilities to drive more profit and failure to update or renovate facilities) (Bradach, 1997; Brickley & Dark, 1987).	Moral hazard is the "classic" problem at the employee-manager level, whereas when behavior is not monitored or observed, the agents may "withhold effort or shirk" (Alchian and Demsetz, 1972).

The two forms of agency cost are relevant to expectations of quality that directly relate to customer satisfaction and ultimately post-purchase behavior. Horizontal and vertical agency costs are factors that significantly impact consistency. The quality and customer experience with each hotel is the glue that holds the brand together for both the customer and the franchisor.

Understanding the interplay between components of the Agency Theory and the Expectation Confirmation Theory is critical to ensuring that hoteliers and executives look at the broader picture of quality and the impact on the customer experience.

II.8.3.1 Horizontal Agency Cost with Regard to Free Riding

When brands are strong, and the franchise has support systems in place to ease the success of the franchisee, "franchise opportunism often materializes through free-riding" (Barthélemy, 2011), and oftentimes the risk comes from franchisees that lure customers on the basis of an established brand name, but deliver an inferior quality product or service (Carney & Gedajlovic, 1991).

> *Horizontal agency involves keeping agents in different locations from taking actions that help themselves at the expense of nearby agents. The most pertinent horizontal agency problem in franchising is called free riding, and it occurs when franchisees cut inputs (e.g., staff to clean bathrooms) in an effort to increase outlet profit (Caves & Murphy, 1976).*

Franchisees can also free ride in the form of product quality or consistency with keeping the pace of changing customer expectations, such as upgrades, renovation, and new products (Bradach, 1997; Brickley & Dark, 1987). Other behaviors that are just as detrimental to the brand come in the form of price gouging of customers, under-delivering on quality and customer values, and cutting corners (Zhang et al., 2015). Moreover, franchisees profit from the brand name at the expense of the brand name—and do not completely bear their proportional costs because of their lack of investment in product changes (Perryman & Combs, 2012).

Since franchisee, "efforts are sufficient to attract a steady stream of customers, these opportunistic franchisees may be tempted to increase short-term profitability by letting quality standards slip" (Barthélemy, 2008). Franchisee behavior that is less than ideal for the brand image is high risk with horizontal agency cost. A short-sighted approach to the business can lead to inconsistent products and differing experiences from location to location. This behavior, in turn, affects quality, which has a domino effect on customer disconfirmation based on expectations that are set by marketing, prior products at other hotels, and other engagements with the brand.

II.8.3.2 Vertical Agency Cost with Regard to Employee-Manager Incentives

Similarly, vertical agency cost is related to compensation. Since the manager's wealth and income are not directly tied to the performance outcomes, outlet managers have little incentive toward performance (Carney & Gedajlovic, 1991; Perryman & Combs, 2012; Zhang et al., 2015). This is referred to as shirking (a moral hazard), which is a lack of effort on the part of the franchisee (agent) (Eisenhardt, 1989). The classic problem with shirking is a result of lack of observed behavior. If the agent knows that monitoring is not occurring, the effort is withheld (Alchian & Demsetz, 1972). As a result of wealth and income not being directly tied to the employee's manager, the performance of the hotel can suffer. Shirking forces franchisors to closely monitor the employee-managers (Carney & Gedajlovic, 1991; Lafontaine, 1992).

This type of moral hazard problem is solved either through, "…monitoring [which] aims at providing principals with information about the behavior of agents, and residual claimancy aims at aligning the incentives of agents with those of principals" (Barthélemy, 2011). Franchisees have incentives to perform due to compensations being directly tied to performance, whereas employee-managers do not. Barthélemy discussed the risk of "high-powered incentives

of franchising" and their detrimental effects of creating free-riding hazards" (Barthélemy, 2008). The solution to shirking and moral hazard comes through stringent expectations with the franchisee to invest in outlet performance, which reduces outlet-level monitoring effort (Perryman & Combs, 2012). Monitoring performance of franchisees can be difficult depending on governance and mechanisms for influencing behavior, not to mention limited sphere of power that a franchisor possesses with exponential growth. Monitoring can oftentimes be cost prohibitive.

This inconsistent experience can be detrimental to the expectations that customers have on the brand. The brand is an important aspect of the franchise itself; consistency of the brand is paramount. Consistency or uniformity of the brand (franchise) is directly linked to customer retention (Bradach, 1997). Consumers are willing to pay more for higher quality products (O'Neill & Qu, 2006); therefore, understanding how the Agency Theory impacts customer expectations (and the Expectation Confirmation Theory cycle) is critical to driving performance.

II.9 The Role of the Brand

This study looks at different brands from a portfolio of hotels. While the intent of the study is to understand the relationship of quality, customer satisfaction, occupancy, and revenue, this study looks to understand how the brand has implications for these relationships.

II.9.1 *Definition of a Brand*

The customer definition of a "brand" varies depending on the context. The formal (and academic) definition of a brand is a representation of a product or service that is tangible or intangible. Brands drive consumer preference. Cai and Perry Hobson (2004) suggested that the

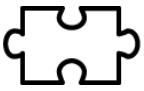
customers view a brand as a product differentiated with a symbolic perspective, perhaps intangible and emotional. Kotler (1997) defined a brand as, "a name, term, sign, symbol, or design, or a combination of them which is intended to identify the goods and services of one seller or group of sellers and to differentiate them from those of competitors."

Aaker (1991) wrote that "the value of a Brand chiefly resides in the minds of customers and is based primarily on customers' Brand awareness, their perceptions of its quality, and their brand loyalty." From the customer's perspective, the brand holds a level of equity based on prior experiences and namely the marketing effects that are created as unique attributes of the product and services (Keller, 1993). Familiarity with the brand is the result of the equity that the brand holds. Individuals associate themselves with the brand, and it holds some level of uniqueness and memory to the customer in a strong and favorable manner. Brand equity, therefore, is built on customer recognition and association of their expectation of the brand. The brand has a number of definitions, and the components surrounding equity vary. Cai and Perry Hobson (2004) elaborated that the industry has no standard for measuring brand equity; many academic and practitioners agree that equity comes from two areas—brand awareness and brand image.

Nam, Ekinci, and Whyatt (2011) stated that customer satisfaction mediates the relationship between brand equity and brand loyalty specifically with regard to "staff behavior, ideal self-congruence, and Brand identification on Brand Loyalty. The effect of physical quality and life-style congruence on brand loyalty is fully mediated by consumer satisfaction." The complexities of defining a brand support that all of these areas are functions of creating a brand—that being awareness, image, knowledge, recognition, and association (Table 8). Arguments are made about where each resides in the consumer life cycle for creating a brand, but little dispute is made that they all serve some purpose. Each of these definitions points to the

customer's understanding of the product or service. In the context of hotels, this is largely impacted by the agent (franchisee) that operates the brand.

Table 8 Components of Brand Strength that Drive Brand Signaling

 Awareness	Brand Awareness is not equal to brand equity and does not directly translate as such (Cai & Perry Hobson, 2004). Awareness impacts consumer decision-making through influencing "the formation and strength of Brand association in Brand Image," but is conditional on whether "Brand node has been established" in the customer's memory (Keller, 1993). Brand awareness is occasionally strong enough to create a positive response from the customer through the brand's uniqueness. However, the brand image is, "more important than awareness" (Cai & Perry Hobson, 2004).
 Recognition	Brand Recognition is the customer's ability to identify a brand based on prior exposure—of which they are able to "discriminate" having heard or seen the brand before (Keller, 1993).
 Knowledge	Brand Knowledge is composed of awareness and image—awareness is the ability to recognize or recall performance, and the image is the associations that link their thinking to the brand (Keller, 1993).
 Association	Brand Association is the connection strength of the brand *(Keller, 1993).* "The strength of associations depends on how the information enters consumer memory (encoding) and how it is maintained as part of the Brand image (storage). Strength is a function of both the amount or quantity of processing the information receives at encoding (i.e., how much a person thinks about the information) and the nature or quality of the processing the information receives at encoding (i.e., the manner in which a person thinks about the information)" *(Keller, 1993).*

Image

Brand Image is made of perceptions of the brand based on customer associations held in memory (Keller, 1993). *"*Brand image can be understood as the perception of a Brand as reflected by its associations held in the guest's memory. They contain the meanings of the Brand for the guest—inclusive of tangible attributes of a hotel property, effective benefits expected from staying at the hotel and attitudinal emotions attached to experiencing the hotel" (Cai & Perry Hobson, 2004). The "favorability, strength, and uniqueness of Brand associations" are the areas that compose brand knowledge and create a customer-differentiated response *(Keller, 1993).*

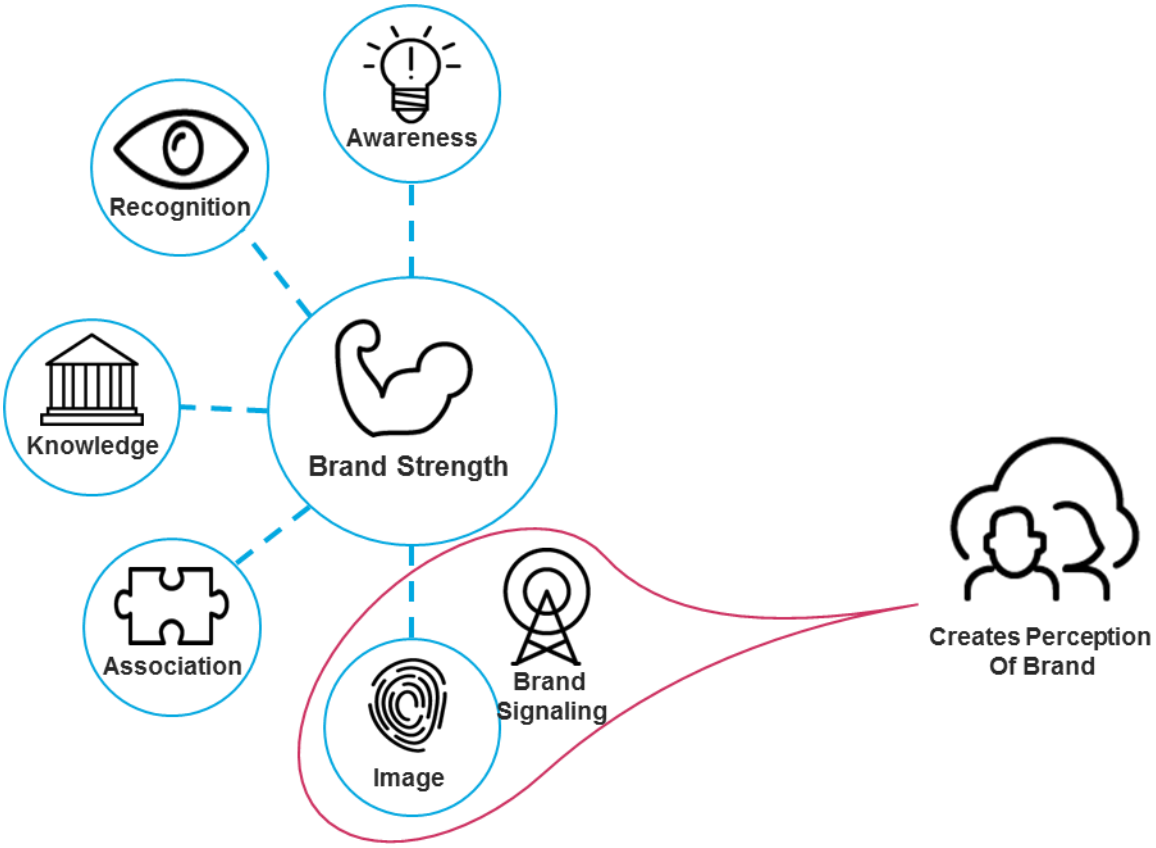
The definition of each of these is important to articulate, as each of these contributes to the relationship that is created with the guest through the experience and all other touch points.

II.9.2 *Brand Equity, Strength, and Resulting Signaling*

Brand equity is based on reaction, and when consumers react positively or negatively to a brand, the brand equity increases or decreases. The intrinsic value of the brand came from guest awareness and perception of quality and expected overall customer satisfaction (O'Neill & Mattila, 2004). This value or equity is the baseline for the customer's expectations of the experience and the ownership of mind share with the consumer—specifically, their emotional and mental recall of the brand. Gobé (2001) wrote about brand strategy misconceptions and areas of focus that are important for brand management, calling attention to the importance of "mind and emotional share." The consumer connection is where equity resides, and this is brought to life through Brand Awareness, Brand Image, Brand Knowledge, Brand Recognition, and Brand Association (Figure 6).

Each component touches some aspect of creating the brand. The hotel guest experience has an aspect that is impacted outside of the franchisor's, franchisee's, or hotel's controls. This comes in the form of each of these brand facets that are affected by sources out of their control. Each of the areas listed in Table 8 and Figure 6 outline the factors that influence decisions, but guest "mind and emotional share" are achieved through marketing and non-marketing signals—or brand signaling.

Figure 6 Relationship of Brand Components in Creating Brand Signal

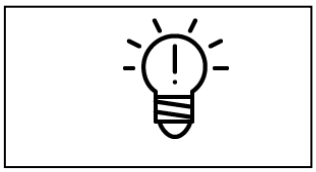


Brand signaling has a number of definitions, but the discussion is warranted in "signaling" origins to better articulate how this relates to hotels. Much of the early literature for signaling is rooted in economics. Spence (1973) wrote in his article about signaling, titled *Job Market Signaling*, and proclaimed that, "market signaling is not exactly a part of the well-defined, technical vocabulary of the economist." But a signal is the seller (or the brand) action taken to convey credibility of the unobservable aspects of the product (Rao, Qu, & Ruekert, 1999), essentially assistance for the customer (or guest) to determine quality. Further, Spence (1973) provided an anecdotal story in their study that hiring a candidate for a role and being unsure of their "productive capabilities" is compared to a lottery. The concept of signaling enters the dialogue with regard to the information about a candidate that can provide "signal"

characteristics. The characteristics that provide information about the candidate reduces the risk of hiring them. This information can come in the form of education.

Signaling is a means for communicating the expectation for quality of the brand. Similar to how educational background and pedigree serve to demonstrate how an applicant for a job can "manipulate" the perception of themselves, signals serve the same purpose for quality. Brand quality is a strategic imperative with the brand (and hotels). Since franchisees are executing on quality across all hotels (as discussed in the Franchising section), the brand is challenged with managing franchisees for consistency. Thus, quality standardization becomes an important means for variation and monitoring as discussed that the Agency Theory is critical to consistency (Erdem & Swait, 1998). As the Expectation Confirmation Theory, the Agency Theory, and brand signaling converge, credibility is at the axis of these three components. Quality signals that are sent to the guests are only as profitable as the execution by the franchisee (Erdem & Swait, 1998). The customer confirms or disconfirms this with the experience (the Expectation Confirmation Theory) and execution of quality controlled by the franchisee (the Agency Theory). Therefore, brand signaling is a surrogate for the perception of quality and drives brand equity (loyalty). In this study, brand signaling is set by brand image and is supported by each aspect of the definition of brand equity.

II.9.3 *Brand Awareness and Recognition*



Branding with hotels brings confidence and value to the table for customers through awareness and recognition. A brand allows hotel guests to know that they can place trust in their reputation. Customer perceptions of brands and their respective characteristics are important in the role of determining response by the customers to the brand (Leischnig & Enke, 2011). The customer's response

determines the strength of the brand and has broad implications on market share (RPI). Complimentary, “Brand flag has become an essential element of arranging a hotel development deal,” and the awareness and recognition of the brand drive trust and future development of the brand (O'Neill & Mattila, 2009).

> *O’Neill and Mattila (2004) also indicated that brands with higher guest satisfaction levels seem to achieve not only greater revenues per guest room but also achieve higher growth rates in room revenues than Brands with lower satisfaction.*

Throughout the U.S., hotel executives discussing ’brands’ and ’products’ through formal and informal discussions use these words interchangeably and run the risk of driving these products closer to commodities (Cai & Perry Hobson, 2004). But clarity should be made, as the brand of a hotel drives value for the franchisee through the customer’s confidence (or lack of trust if the product is substandard). This brand awareness and recognition that drive loyalty to a product are important for revenue. Therefore, there is little dispute that brands drive higher premiums. Notably, the hotel industry has a variety of segments and categories for brands. This segmentation is designed to target various types of customers and cater to larger populations. The average customer has no understanding of these segments except to know the cost difference, and if they stay in the various segments, they are able to determine the different amenities offered. This is important to note as the implications that customers have on perceptions of experience are created based on their awareness and knowledge of that segment created in the brand. Naturally, a guest expects a higher quality stay at a luxury hotel versus an interstate economy location.

II.9.4 *Brand Knowledge*

Brand names attract repeat and new customers through quality and name recognition (Brickley & Dark, 1987). For example, Brickley and Dark (1987) cited that McDonald's can be seen as a familiar choice for customers in unfamiliar places because customers know what to expect. This safe-haven feeling with a brand drives demand through name recognition, but the quality is important to the equation. Loyalty toward the brand is impacted by stability, which knowledge of the brand has some linkage (e.g., can the guest trust the quality of the hotel and future performance) in decreased risk by the customer for selecting the brand (Leischnig & Enke, 2011). For this reason, hotel guests seek brand names they are familiar with to reduce the risk of the unknown. They grow an expectation for quality associated with the brand, and this tempers their perspectives on how that brand should perform.

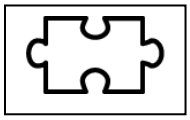
> "In sum, a hotel Brand represents a relationship with guests. This relationship is built as consumers get to know a Brand (even if they initially choose their accommodation at random), use its facilities, evaluate their experience, and begin the relationship; and it becomes cemented as guests continue using its services. Ultimately, the Brand represents the consumer's experience with its organization" (O'Neill & Mattila, 2009).

As previously cited, as the customers trust the brand more, the perceived value created drives decrease in price elasticity and increase in market share potential (O'Neill & Mattila, 2009). The quality of the brand drives the customer expectation and impacts perceived trajectory.

> "A concurrent study found that Brand affiliation, name recognition, and reputation for high-quality service together can contribute as much as 20 to 25 percent of the going concern value of a successfully operating hotel" (O'Neill & Qu, 2006).

Loyal customers drive farther and pay more, which has other ancillary benefits such as recommendations and advocacy.

II.9.5 *Brand Association*



The added value the signal gives the brand is defined as "consumer-based Brand Equity" (Erdem & Swait, 1998). In order for the brand to have any level of risk for perceived change or costs that can be reduced, the brand must have existing equity (Erdem & Swait, 1998). According to Aaker (1991), "brand loyalty is seen as a component of brand equity in the cognitive psychology framework." No surprise that customer confidence in the transaction increases if the consumer is aware of the brand and has greater confidence that the brand will deliver on its promises (Waldfogel & Chen, 2006).

> *Also, the signaling framework proposes that brand loyalty is a consequence of brand equity because increased expected utility (due to decreased information costs and perceived risk) motivates consumers to buy the same subset of brands repeatedly (given a match between tastes and product offerings) (Erdem & Swait, 1998).*

Since brand loyalty is a function of brand equity, consumer experiences that are satisfactory naturally result in sharing positive feedback (or positive disconfirmation) (Erdem & Swait, 1998). The non-marketing controlled signals (third-party quality ratings) demonstrate that signaling

power of pricing is weakened with “third-party quality ratings,” meaning that these third-party sources reduce the need for consumers to use price as a benchmark for quality (Akdeniz, Calantone, & Voorhees, 2014). Likelihood to repeat the purchase increases in part due to the brand signal, and continued purchases may also be a direct result given the fact that customers perceive a low risk with the brand (Erdem & Swait, 1998). Brand loyalty, therefore, is a close match between the customer ”taste” and ”product offering” or their need and brand offering (Erdem & Swait, 1998).

Loyalty guest mix of business is used to understand the relationship between the association with the brand and the consumer (guest) experience. Additionally, from a hotel brand perspective, one draws a parallel that the franchisor and franchisee have a number of variables they can manipulate and control that signal to the consumer the quality of the product. Investment in education to adjust ability to secure a job or investing in a hotel to increase the quality is essentially ”signaling costs” (Spence, 1973). Since the brand actually knows more about the quality offered than the customer, this creates an ”asymmetric information” relationship—whereas one party knows more than the other, naturally creating a need for a mechanism for providing credibility of quality (Erdem & Swait, 1998).

II.9.6 *Brand Signaling and Image*

Related to brand image, brand signaling sets clear and credible signals for consumers and impacts the perceived quality or the expectation of the experience, even so much as to create a halo of favorability (Erdem & Swait, 1998). Credibility is impacted by the cost of false signaling, so the source of the signaling is important, and the consequence of false information must be significant (Price & Dawar, 2002)—meaning that the source where the customer obtains information about a brand must have a significant consequence if that source

has false information. The signal around the image is received from the hotel perspective in the perception of the brand.

Therefore, the use of J.D. Power data with this study allows for a significantly credible source to provide the consumer with signaling for quality, with detrimental consequences related to trust with the J.D. Power brand itself if they get the signal to the consumer about quality wrong. Akdeniz et al. (2014) noted that there is a simultaneous effect that occurs with signaling—that of marketing-controlled and non-marketing controlled, of which the non-marketing controlled or independent third-party reviews are gaining importance. Sources of signaling, therefore, provide credibility to inform consumers of products, and the information shared is key toward the formation of brand equity (Erdem & Swait, 1998).

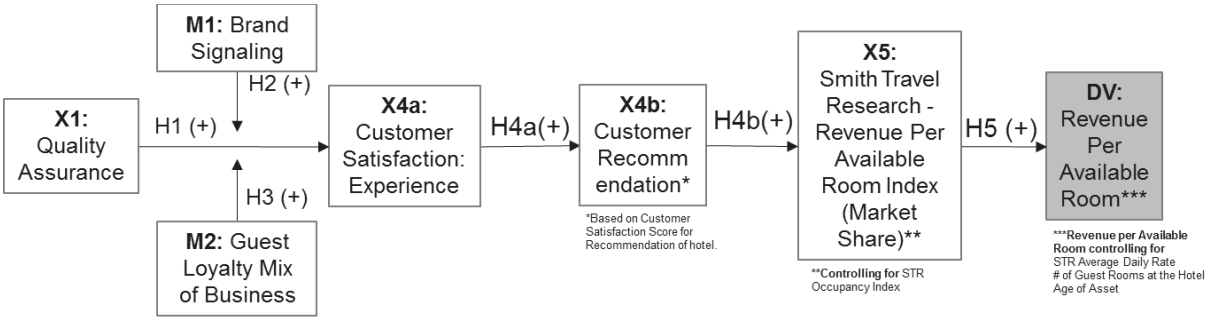
III METHODS

III.1 Research Question(S) and Model

This study tests the following relationships for predicting hotel performance related to experience. The Expectation Confirmation Theory explains customer behavior through (1) the guest expectations before arrival, (2) the perceived performance during the experience, (3) satisfaction post-visit, which is ultimately the decision to repurchase, and (4) attitude and intention. Ultimately, the performance is linked directly to the "positive function of expectation and disconfirmation" (or more easily said, the experience met expectations and, therefore, there is intent to repurchase) (Oliver, 1977).

Proposed Model for Explaining Revenue per Available Room

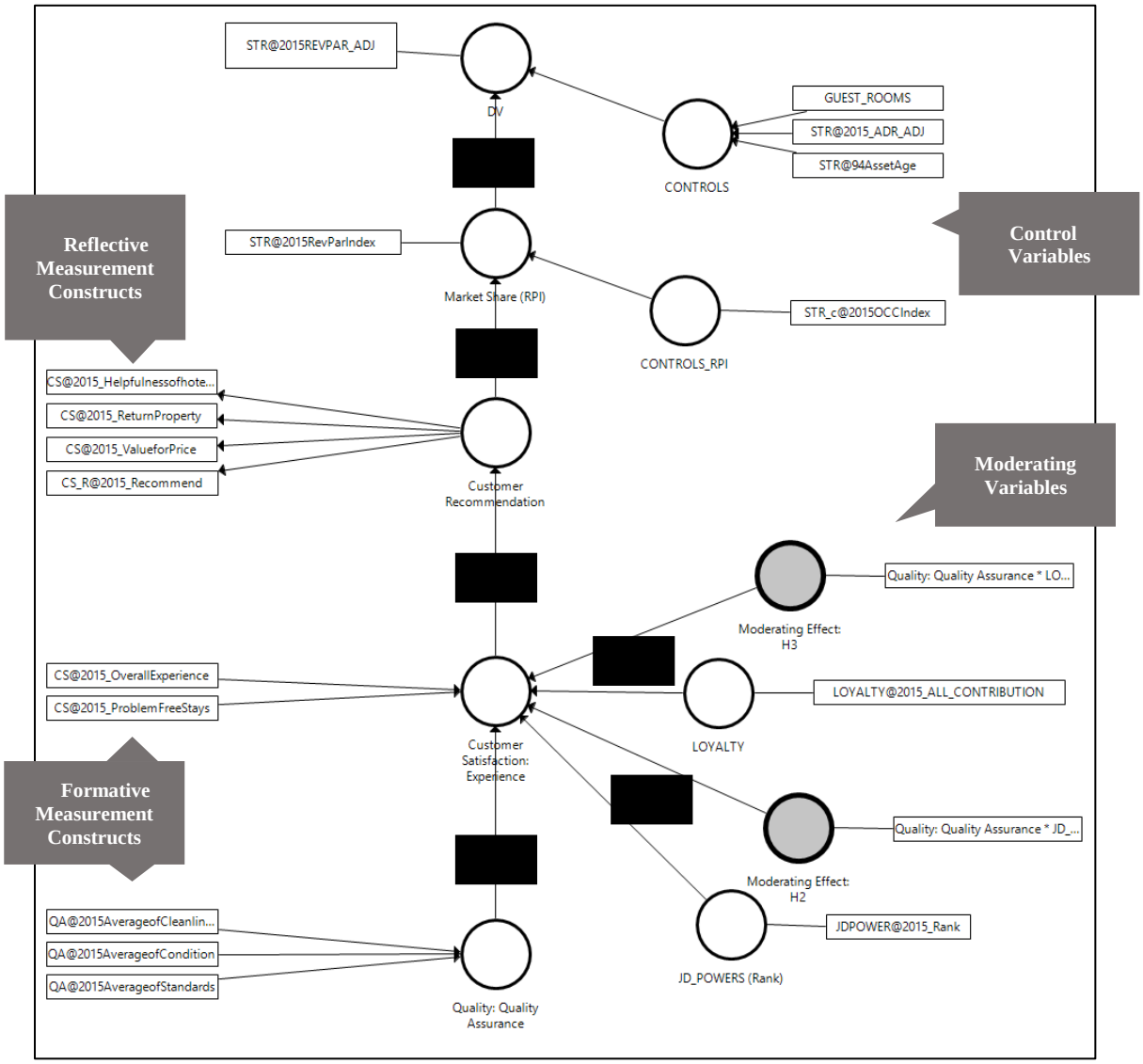
Figure 7 Model for Explaining Revenue Per Available Room



Multiple theories run in tandem in order to explain the importance of the customer experience at a hotel: (1) the Expectation Confirmation Theory directly explains the performance aspect of revenue, (2) the Agency Theory explains the dynamics created by the principal-agent relationships with franchising hotels, and (3) brand strength is at risk for the franchisor. For the analysis, the chain of influence that is reviewed with the research model focuses strictly on components of the Expectation Confirmation Theory. Aspects of the Agency Theory are not

tested but serve to help explain the results and allow managers to understand relationships and repercussions of decisions and actions taken.

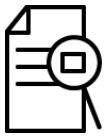
III.2 Partial Least Squares-Structural Equation Model (PLS-SEM)



III.3 Definition of Variables

The following are variables that were used for analysis from the data store of a large hospitality company and were calculated with year-end data by the hotel in aggregate. As extrapolated based on literature, the following are variable groupings based on the analyses.

Table 9 Definitions of Independent Variables for Explaining Customer Experience

 Quality	 Customer Satisfaction: Experience and Customer Recommendation	 Brand Signaling	 Loyalty	 Market Share (RPI) (and hotel occupancy)
Measurement of the delivery of the customer's expectations through measurement of a delivery of brand standards.	The determinant of disconfirmation in having under-performed or outperformed the customer's expectations.	Moderating the customer's expectations of the brand and performance.	Loyal customers drive farther and pay more, which is a function of outperforming customer expectations.	Intention and attitude are measured by market share (RPI) as a result of satisfaction and customer recommendation to repurchase.

III.3.1 *Dependent Variables*

Revenue per Available Room (RevPAR) were analyzed using moderation of Smith Travel Research data:

- **Revenue per Available Room (RevPAR):** Industry standard for calculating hotel optimization. Total revenue divided by total rooms available. Adjusted for inflation with the anchor year of 2006.
- **Smith Travel Research Indexes:** Occupancy and Revenue per Available Room Index.

III.3.2 *Independent Variables*

The following are variables that were used for analysis from the data store of a large hospitality company and were calculated with year-end data by the hotel in aggregate.

- **Quality Assurance:** Average score for the year; looking at the overall score, standards compliance, cleanliness of the hotel, and condition of the asset (proprietary calculation). Locations average approximately two visits per year.
- **Customer Satisfaction: Experience*:** Aggregate of all customer surveys that score 9 or 10. Key variables from the survey related to Overall Experience and Problem Free Stays. Surveys are sent within 30 days of checkout.
- **Customer Recommendation*:** Aggregate of all customer surveys that score 9 or 10. Key variables from the survey related to Helpfulness of the Hotel Staff, Intent to Return to Property, Value for Price Paid, and Recommend Hotel. Surveys are sent within 30 days of checkout.
- **Market Share (RPI):** Smith Travel Research Revenue per Available Room Index (RPI), which is the share of business the hotel has compared to competition, based on a scale of

100 as full "fair share" (less than 100 = less than fair share; over 100 = more than fair share of business against competition).

***Important Managerial Implication: Customer Satisfaction and Recommendation Data**
Selection of customer service variables was made based on collinear analysis of data points. Managers should understand which variables should be used for strategic decision-making (non-collinear data points; e.g., separating Overall Experience from Overall Service) and the data points that should be used to triage hotel level issues (e.g., breakfast quality, etc.). The data do not suggest discontinuing any questions; however, managers must be thoughtful of which variables they include for decision-making, problem solving, and the rationale they are using when sharing the data points.

III.3.3 *Moderating Variables*

The following variables were used in the PLS-SEM modeling as moderating variables:

- **Brand Signal Data:** J.D. Power Brand Index ranking for the industry for each brand in the analyses.
- **Loyalty Members per Guest Room:** Distribution of loyalty members, including looking at top-tier loyalty customers per guest room.

III.3.4 *Control Variables*

The following variables were used in the PLS-SEM modeling as control variables:

- **Guest Rooms:** Total number of guest rooms at the hotel.

- **Average Daily Rate (ADR):** Average daily rate, which is total revenue collected divided by total rooms sold; figure measures the average revenue collected per room.
- **Asset Age:** Smith Travel Research reported the age of the hotel.
- **Occupancy Index:** Smith Travel Research Occupancy Index, which is the share of occupancy the hotel has compared to the competition, based on a scale of 100 as full "fair share" (less than 100 = less than fair share; over 100 = more than a fair share of business against competition).

III.3.5 *Data Sources*

These analyses included performance data from six brands ranging from midscale to upper upscale classification. The analyses looked at hotels with 10 years of data from 2006 to 2015 with a focus on customer satisfaction, quality assurance, and loyalty frequency in aggregate for each year (Table 10). The dependent variable of Revenue per Available Room or RevPAR was adjusted for inflation with the base year of 2006. Hotels within the study are both franchised and owned and operated, but all are required to comply with standards set forth by each individual brand. No controls or factors were accounted for regarding ownership type or investment strategy by each hotel owner.

Table 10 Descriptive Statistics on Hotel Sample

HOTEL GROUP			2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
TOTAL HOTEL COUNTS			**2,333**	**2,532**	**2,796**	**3,032**	**3,161**	**3,229**	**3,305**	**3,409**	**3,520**	**3,665**
Upscale, Full Service, Conversion Brand	N	Valid	284	286	295	299	305	306	303	309	310	314
		Missing	30	28	19	15	9	8	11	5	4	0
Upper Upscale, All Suite	N	Valid	172	176	184	191	197	200	202	206	208	215
		Missing	47	43	35	28	22	19	17	13	11	4
Upscale, Limited Service	N	Valid	287	335	397	457	478	491	507	519	544	573
		Missing	291	243	181	121	100	87	71	59	34	5
Upper Upscale, Full Service	N	Valid	211	219	225	231	232	232	234	234	236	236
		Missing	26	18	12	6	5	5	3	3	1	1
Upscale, Extended Stay	N	Valid	191	214	250	278	294	299	307	324	341	368
		Missing	181	158	122	94	78	73	65	48	31	4
Upper Midscale, Limited Service	N	Valid	1188	1302	1445	1576	1655	1701	1752	1817	1881	1959
		Missing	789	675	532	401	322	276	225	160	96	18

Special Note: Secondary Data Audits

Random data checks of information in all variables categories were audited to ensure that data translated to tables and modeling software correctly.

The following was obtained from an enterprise data store of a large hotel organization:

- **Quality Assurance Database:** Average of approximately two visits per year, every 4 to 8 months (Table 11). Employees of the hotel organization graded each location on the compliance of standard, asset condition, and overall cleanliness. Data was collated in enterprise data store.

Table 11 Descriptive Statistics on Quality Assurance Visits

		2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
N	Valid	1957	2142	2363	2651	2907	3060	3157	3256	3379	3503	3670
	Missing	1740	1555	1334	1046	790	637	540	441	318	194	27

- **Customer Satisfaction Database:** Customer surveys were sent via email by a third-party company and collated in enterprise data store (Table 12).

Table 12 Descriptive Statistics on Customer Satisfaction Survey Scores for Hotels

HOTEL GROUP			2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Upscale, Full Service, Conversion Brand	**N**	**Valid**	148	162	175	183	197	220	247	271	288	312
		Missing	166	152	139	131	117	94	67	43	26	2
Upper Upscale, All Suite	**N**	**Valid**	166	169	178	185	190	197	200	205	208	215
		Missing	53	50	41	34	29	22	19	14	11	4
Upscale, Limited Service	**N**	**Valid**	278	324	387	448	470	484	504	518	544	574
		Missing	300	254	191	130	108	94	74	60	34	4
Upper Upscale, Full Service	**N**	**Valid**	180	197	208	215	222	223	226	230	233	236
		Missing	57	40	29	22	15	14	11	7	4	1
Upscale, Extended Stay	**N**	**Valid**	184	206	241	274	291	296	304	321	340	368
		Missing	188	166	131	98	81	76	68	51	32	4
Upper Midscale, Limited Service	**N**	**Valid**	1154	1266	1408	1544	1630	1681	1738	1806	1877	1965
		Missing	823	711	569	433	347	296	239	171	100	12

- **Smith Travel Research (STR):** Third-party lodging industry aggregator and reporting platform with 50,000 hotels from 160 countries reported out.
- **J.D. Power Rankings:** Brand ranking was according to customer surveys collected by a third-party organization for the entire hospitality industry. An additional layer of analysis was done around understanding the strength of the product from the customer's perspective. Ranking and index of the brand looked at the contribution to the expectations of the customer.

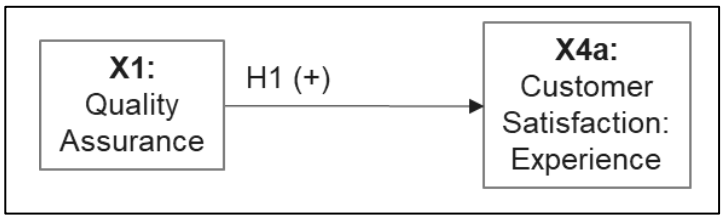
III.4 Testable Hypotheses

The following hypotheses breakdown focuses on Quality Assurance, Customer Satisfaction: Experience, Customer Recommendation, Brand Signaling, and Guest Loyalty.

III.4.1 *H1: Increased Quality Assurance scores will increase Customer Satisfaction: Experience scores*

Quality assurance scores were used as the measuring stick for setting the bar on what the customer expects. This score measures how the hotel is performing against the standards established by the brand—and the customer's ultimate expectations of how the product should be displayed to the customer. **Quality assurance** measures the **expectation of the guest** through compliance of the franchisor on three aspects of the business: **(1) compliance with standards** as set forth by the brand, **(2) cleanliness** of product offering, and **(3) condition** of the asset.

Figure 8 Hypothesis Diagram



H1: Increased Quality Assurance scores will increase Customer Satisfaction: Experience scores

The rationale for customer satisfaction aspects that are important—which include a number of variables from quality assurance, including cleanliness, security, value for price and friendly/courteous staff (Akan, 1995; Atkinson, 1988; Barsky & Labagh, 1992; Holjevac et al., 2009; Knutson, 1988)—is supported by customers that expect compliance of the three core components of brand quality: standards, cleanliness, and condition of the hotel.

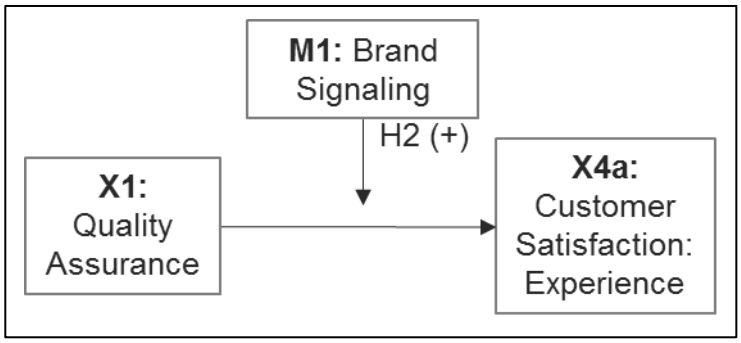
III.4.2 *H2: The interaction effect between Brand Signal and Quality Assurance will increase Customer Satisfaction: Experience*

The trajectory of quality assurance's impact on Customer Satisfaction: Experience is influenced by the brand signal that is received by the customer. Within brand signaling is the concept of brand stability, which is measured on how a brand's attributes are perceived as stable and on how guests can be confident that future performance will match the core values, positioning, and execution of the brand (Leischnig & Enke, 2011). This includes the component of brand strength that comprises guests' views of the brand: (1) Awareness, (2) Recognition, (3) Knowledge, (4) Image, and (5) Association; and impacts the perception of the brand over time.

In "imperfect information markets," guests of hotels do not always have a firsthand account of expectations for a visit and, therefore, experience "asymmetry" with the risk

associated with their decisions; therefore, the trust in the brand Signal (Akdeniz et al., 2014). The non-marketing aspects of signaling to the guest are ranked with a third-party independent firm's industry-wide brand satisfaction data. This data provide introspection into the asymmetric expectations of customers at hotels. This metric is an aggregate of customer feedback and ranks scores for each brand. The interaction effect of the brand as ranked by a third-party entity delineates the scores for each individual brand. Those brands with third-party rankings that are higher should naturally have scoring that is greater.

Figure 9 Hypothesis Diagram



H2: The interaction effect between Brand Signal and Quality Assurance will increase Customer Satisfaction: Experience.

One of the purposes of a signal is to communicate the "credible information about unobservable product quality to the consumer" (Rao et al., 1999). The signal determines if the third-party firm's aggregate scoring for the industry holds true between each of the sub-brands analyzed.

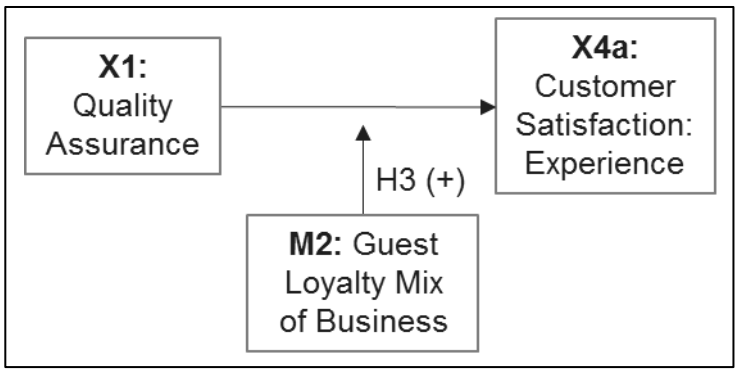
III.4.3 *H3: The Interaction Effect between Guest Loyalty Mix of Business and Quality Increases Customer Satisfaction: Experience*

O'Neill and Mattila (2006) wrote that "Brands provide value to both guests and hotel companies" because they create loyalty. There is no disputing that brands assist with capturing larger market share (O'Neill & Mattila, 2004). Franchisors and brand managers leverage the power of the brand once customers become more and more loyal through, "price premiums decreased price elasticity, increased market share, and more rapid brand expansion" (O'Neill & Qu, 2006).

> *Loyalty has been defined by the American Marketing Association as, "the situation in which a consumer generally buys the same manufacturer-originated product or service repeatedly over time rather than buying from multiple suppliers within the category" (Ali & Muqadas, 2015).*

The organizational data around guest loyalty mix of business are used to determine interaction effect. Those hotels with a higher number of top-tier loyalty members should reflect locations that have higher quality and customer satisfaction scores.

Figure 10 Hypothesis Diagram



H3: The interaction effect between Guest Loyalty Mix of Business and Quality Increases Customer Satisfaction: Experience.

Those hotel locations with higher scores benefit from more loyal customers and, therefore, continue to take advantage of meeting customer expectations and of intent to return and repurchase behavior.

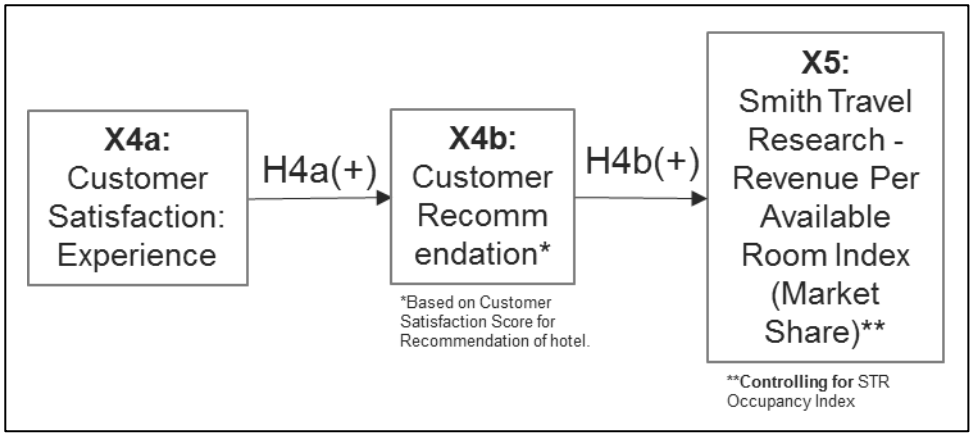
III.4.4 *H4A / H4B: Increased Customer Satisfaction: Experience will result in increased Customer Recommendation; Increased Customer Recommendation will result in increased Market Share (RPI)*

The component of disconfirmation (were expectations met or unmet) was measured by Customer Satisfaction: Experience scores. Satisfaction was measured through customer recommendation survey scores.

> *Satisfaction reinforces positive attitudes toward the Brand, leading to a greater likelihood that the same Brand will be purchased again...dissatisfaction leads to negative Brand attitudes and lessens the likelihood of buying the same Brand again (Assael, 1987).*

Moreover, customer acquisition is expensive. According to Naumann & Shannon (1992), the cost to attract new customers is about five times more in money, time, and resources than to retain the existing customer. Therefore, the focus on customer recommendation (or satisfaction) includes aspects such as intent to return, and repurchase behavior is optimized. According to Anderson et al. (1994), increases with satisfaction enhance the reputation of the hotel and result in 'less price conscious" customers that "generate positive word-of-mouth" sentiment, contributing to greater profit.

Figure 11 Hypothesis Diagram



H4A: Increased Customer Satisfaction: Experience will result in increased Customer Recommendation.

H4B: Increased Customer Recommendation will result in increased Market Share (RPI).

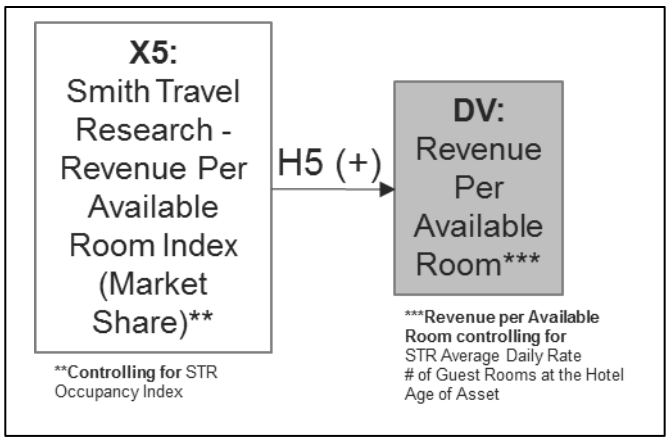
Overall, loyal clients who are satisfied with the experience consider price and convenience less than dissatisfied customers (Ekinci et al., 2008). Brand equity introduced by Keller (1993) considered the customer's "memory effect" and the fact that satisfaction creates

loyalty and continued preference. Satisfaction is important for intent to return and repurchase by the guest.

III.4.5 *H5: Increased Market Share (RPI) will increase Revenue Per Available Room (RevPAR)*

Given that RevPAR is a calculation of total rooms available and total rooms revenue collected, market share (RPI) contributes to the calculation of RevPAR. As the number of rooms increases, the revenue collected by the hotel increases and, therefore, these relationships are related. This is the final calculation for demonstrating the relationship that occurs between quality, satisfaction, and garnering market share (RPI).

Figure 12 Hypothesis Diagram



H5: Increased Market Share (RPI) will increase Revenue Per Available Room (RevPAR).

Significant research exists establishing the relationship between financial performance and customer satisfaction. Thus, the brand equity and strength garnered by hotels that excel in

the key indicators drive benefit to the bottom line through this market share and revenue (Anderson et al., 1994).

IV RESULTS AND ANALYSES

A large global hospitality company provided the data for this study. The data represent year-end averages for roughly 2,300 to 3,600 hotels (units, depending on year under review) over a period of 10 years in the U.S. only. The data are representative of multiple brands within a portfolio of brands for a well-known and reputable hospitality company. As a central function of the analyses, the dependent variable for this study is Revenue per Available Room (RevPAR).

IV.1 Hypotheses Summary and Analyses Outcomes

The analyses following this section provide the full details of the outcomes from each of the latent variable constructs and tested hypotheses. A summary of the outcomes from each of the hypotheses suggests that the overall model and contribution to theory is supported by the data and the study can be used to guide a number of managerial decisions (Table 13). The overall study suggests the following:

- A 10-point increase in Quality Assurance results in up to a $1.05 increase in RevPAR.
- On average, a 5- to 8-point increase in Customer Experience (Overall Experience and Problem Free Stays) results in up to a $1.05 increase in RevPAR.
- On average, a 4- to 8-point increase in Customer Recommendation results in up to $1.05 in RevPAR.
- A 2-point increase in Market Share (RPI) results in up to a $1.05 increase in RevPAR.

These findings are based on the broader brand groups and are dependent on a host of other variables that also serve as headwinds and tailwinds within the organization where the data

was obtained. This study proves that the relationship between the variables exists, and the data suggest that organizations must ensure that Quality Assurance, Customer Satisfaction, and Customer Recommendation are paramount with every decision made.

Table 13 Hypotheses Summary and Outcomes

Hypotheses	Findings	Conclusion	Implications	Notation
H1: *Increased Quality Assurance scores will increase Customer Satisfaction: Experience scores.*	2006-2011 (Adj. R2 = 0.10 to 0.30, p < 0.001 to 0.05*) 2011-2015 (Adj. thatR2 = 0.30 to 0.60, p < 0.001 to 0.05)	**Supported**	For every 1-point change in the Quality Assurance scores, results in (beta = 0.50 to 0.80) point change in Customer Satisfaction: Experience.	*Sig. below p < 0.05 for 2006 for 2 of 80 Brand Group construct relationships; All 78 other relationships are significant.
H2: *The interaction effect between Brand Signal and Quality Assurance will increase Satisfaction*	(Adj. R2 Change = -0.001 to 0.143, p < 0.001 to 0.05*)	**Further Research is Needed,** Other variables should be analyzed for Brand Signaling	Inconsistent (beta) values. For every 1-point change in the Brand Signaling (change in the ordinal JD Power Rank of the Brand), this results in (beta = -0.094 to 0.032) point change in Customer Satisfaction: Experience.**	*Sig. below P < 0.05 for 13 of the 80 Brand Group construct relationships; All 67 other relationships are significant.
H3: *The interaction effect between Guest Loyalty Mix of Business and Quality will increase Satisfaction*	(Adj. R2 Change = -0.007 to 0.096, p < 0.001 to 0.05*)	**Further Research is Needed,** Controls/parameters suggested to be added for review; inconsistency with increases in some year decreases in others	For every 1-point change in the Guest Loyalty Mix of Business (change in the percentage of Guest Loyalty members contribution to the business), this results in (beta = -0.136 to 0.146) point change in Customer Satisfaction: Experience.	*Sig below p < 0.05 for 2007 for 1 of 80 Brand Group construct relationships; All 79 other are significant.
H4A: *Increased Customer Satisfaction: Experience will result in increased Customer Recommendation.*	(Adj. R2 = 0.677 to 0.961, p < 0.001 to 0.05*)	**Supported**	For every 1-point change in the Customer Satisfaction: Experience, this results in (beta =. 823 to 1.004) point change in Customer Recommendation consistently near 1 for 1 percentage change.	*Sig below p < 0.05 for 2007 for 1 of 80 Brand Group construct relationships; All 79 other are significant.
H4B: *Increased Customer Recommendation result in increased Market Share (RPI).*	(Adj. R2 = 0.866 to 0.400, p < 0.001 to 0.05*)	**Supported**	For every 1-point change in the Customer Recommendation, this results in (beta = -0.042 to .231) point change in Market Share (STR Revenue Per Available Room Index / RPI).	*Sig. below P < 0.05 for 12 of the 80 Brand Group construct relationships; All 68 other relationships are significant. The majority in 2009 when economic conditions

				impacted the industry.
H5: *Increased Market Share (RPI) increase Revenue Per Available Room (RevPAR).*	(Adj. R2 = 0.608 to 0.909, p < 0.001)	**Supported**	For every 1-point change in the Market Share (STR Revenue Per Available Room Index / RPI) this results in (beta = 0.101 to .570) point change in Revenue per Available Room (REVPAR). Notable that as the year's progress, the impact of RPI on REVPAR decreased.	All Significant above p < 0.001.

IV.2 Rationale for Partial Least Squares-Structural Equation Model (PLS-SEM)

The rationale for use with Structural Equation Modeling (SEM) was weighted against an Ordinarily Least Squared Regression, and SEM proved to be more meaningful with the data. Structural Equation Modeling (SEM) has broad uses, including its prevalence in marketing research, as this type of modeling enables researchers to understand theories in their entireties (Hair Jr., Hult, Ringle, & Marko, 2017). PLS-SEM is used primarily with exploratory research and brings focus to the explanation of dependent variable variance when reviewing the model, and excels at predictions using the analysis methods for an explanation of and predicting endogenous latent variables (Ringle, Sarstedt, & Straub, 2012).

> *Researchers especially appreciate SEM's ability to assess latent variables at the observation level (outer or measurement model) and test relationships between latent variables on the theoretical level (inner or structural model) (Bollen, 1989).*

Despite critics of PLS-SEM making statements that the modeling is not as rigorous as other methods of analysis, significant data exists to support the strength of the analysis method. Joseph F. Hair (2014) attributed this perspective on PLS-SEM as a result of researchers' prior histories with PLS's predecessor modeling method known as CB-SEM (Covariance Based-SEM). Additionally, Rigdon (2012) suggest that using PLS-SEM in areas where theory is less developed is more conducive than CB-SEM. PLS-SEM is encouraged where predicting or explaining target constructs is a part of the modeling (Rigdon, 2012). Joe F. Hair, Ringle, and Sarstedt (2011a) suggested that PLS-SEM can, in fact, be considered the "silver bullet" for estimating causal models in many model and data situations, especially when complex models and secondary data are involved." Secondary data has become more common for research and typically lack some level of the theoretical framework; which CB-SEM is less of a match over PLS-SEM (Ringle et al., 2012).

IV.3 Partial Least Squares-Structural Equation Modeling (PLS-SEM) Baseline Model Validation

This study leverages PLS-SEM through its two components: (1) the structural model (inner mode), which uses paths to show relationships of constructs, and (2) the measurement component of the model, which shows predictive relationships in the structural model between the latent constructs. This second-generation analysis method leverages multivariate data analysis to employ statistical methods to "simultaneously analyze multiple variables representing measurements associated with individuals, companies, events, activities, situations, and so forth [and]…SEM is used to either explore or confirm theory" (Hair Jr. et al., 2017). PLS-SEM is designed to analyze both reflective and formative measurement models and is considered the primary method when incorporating these two forms of measures (Hair Jr. et al., 2017)— the

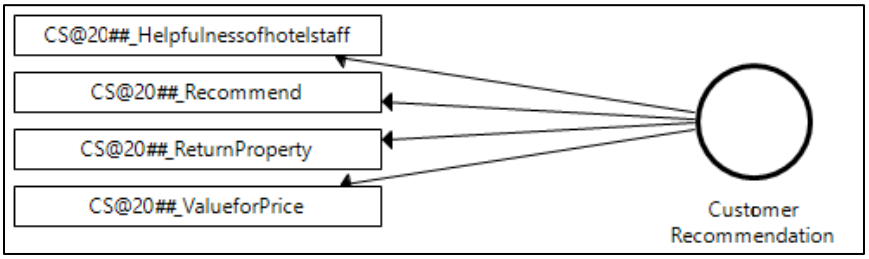
constructs in the model leverage both. As such, the subsequent sections outline the validity and reliability.

IV.3.1 *Reflective Measurement Model Validation*

PLS-SEM Reflective Measurement Models (Mode A measurement) have a history with social science and basis with ”classical test theory” (Hair Jr. et al., 2017). An important characteristic of formative indicators is that they are not interchangeable, as is true with reflective indicators.

The study has one set of Reflective Measurement modes for measuring Customer Recommendation (Figure 13). These variables are considered the components that drive customer satisfaction within the Expectation Confirmation Theory cycle. As discussed, hotels that have a mastery of this chain of customer touch points ultimately capture greater market share (RPI).

Figure 13 Customer Recommendation—Reflective Measurement Model



In order to ensure confidence with the model and the outputs, the constructs for both reflective and formative variables must achieve minimum thresholds when tested with the following areas:

- Internal Consistency Reliability: Composite Reliability and Cronbach Alpha

- Convergent Validity: Average Variance Extracted (AVE) and Outer Loadings
- Discriminant Validity: Heterotrait-monotrait (HTMT)

All of these variables were reviewed and validated for the eight brand groups over the 10-year period where secondary data was collected.

IV.3.1.1 Internal Consistency Reliability: Composite Reliability

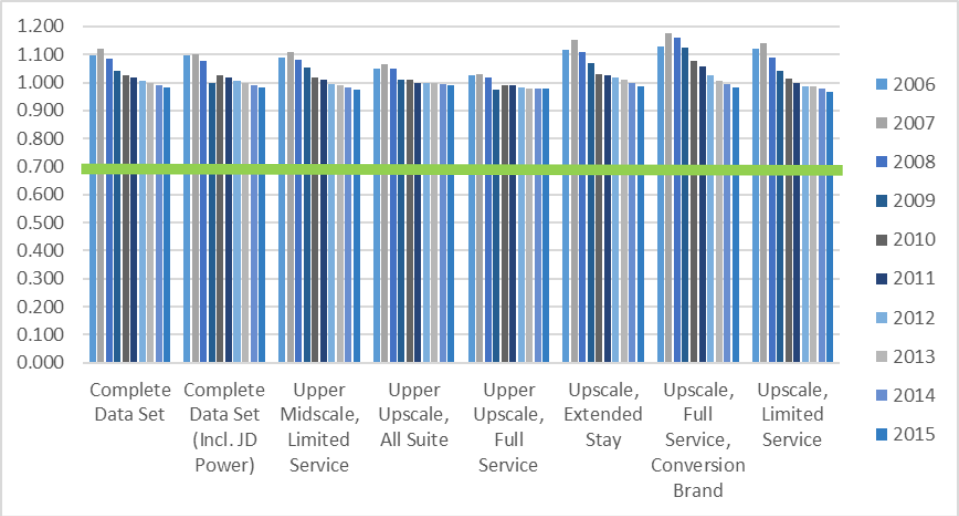
Internal Consistency with Composite Reliability estimates how much the latent construct indicators share measurement of the construct (Hair Jr. et al., 2017); for measurement purposes, the model must achieve a Composite Reliability higher than .70, but .60–.70 is considered acceptable (Table 14; Figure 14) (Hair Jr. et al., 2017). All Composite Reliability figures are above .70 for all years on all brand groups (for measures at 1.0 or higher, this is considered complete agreement).

> *NOTE: Additional analysis was conducted when testing composite reliability with regard to numbers below that are above 1.000. When additional customer satisfaction variables were added to the model, the composite reliability scores were reduced and measured below 1.000 with the R-squared values remaining consistent with overall results. Additionally, when customer satisfaction variables were removed, the composite reliability scores remained relatively unchanged, as well as the R-squared values remained consistent with overall results.*

Table 14 Composite Reliability for each Brand Group over the 10-year history

CR: Composite Reliability	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Complete Data Set	1.099	1.120	1.087	1.043	1.025	1.018	1.004	0.999	0.991	0.982
Complete Data Set (Incl. JD Power)	1.099	1.099	1.078	0.996	1.025	1.018	1.004	0.999	0.991	0.982
Upper Midscale, Limited Service	1.090	1.110	1.081	1.052	1.019	1.010	0.994	0.990	0.982	0.974
Upper Upscale, All Suite	1.049	1.064	1.048	1.010	1.011	1.000	0.997	0.998	0.995	0.989
Upper Upscale, Full Service	1.027	1.030	1.017	0.975	0.992	0.992	0.984	0.978	0.978	0.977
Upscale, Extended Stay	1.117	1.151	1.108	1.071	1.029	1.026	1.018	1.008	0.998	0.985
Upscale, Full Service, Conversion Brand	1.130	1.176	1.158	1.125	1.076	1.056	1.025	1.007	0.994	0.982
Upscale, Limited Service	1.122	1.142	1.089	1.041	1.013	0.998	0.985	0.985	0.979	0.967

Figure 14 Composite Reliability for Each Brand Group Over the 10-Year History



IV.3.1.2 Internal Consistency Reliability: Cronbach Alpha

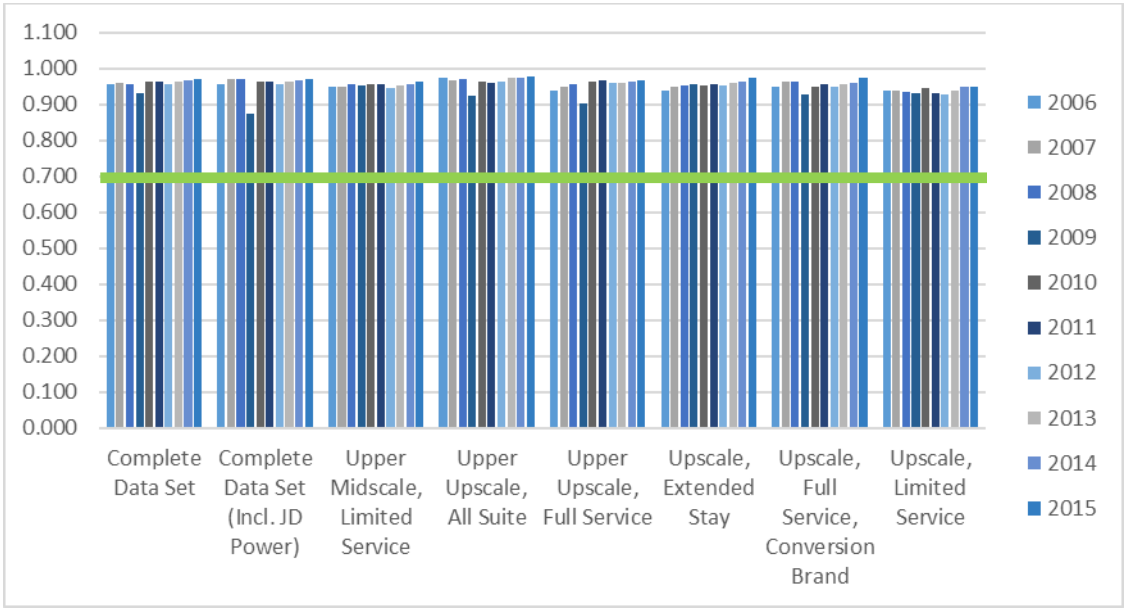
Internal Consistency with Cronbach Alpha, Outer Loadings provides estimates for intercorrelation reliability on the observed indicators; for measurement purposes, the model must

achieve a Cronbach Alpha higher than .70 (Table 15; Figure 15) (Hair Jr. et al., 2017). All Cronbach Alpha figures are above .70 for all years on all brand groups.

Table 15 Cronbach Alpha for Each Brand Group over the 10-Year History

CA: Cronbach's Alpha	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Complete Data Set	0.958	0.959	0.958	0.931	0.963	0.964	0.956	0.964	0.967	0.972
Complete Data Set (Incl. JD Power)	0.958	0.972	0.972	0.873	0.963	0.964	0.956	0.964	0.967	0.972
Upper Midscale, Limited Service	0.949	0.951	0.955	0.955	0.958	0.956	0.945	0.953	0.955	0.962
Upper Upscale, All Suite	0.974	0.968	0.970	0.925	0.966	0.962	0.964	0.973	0.975	0.978
Upper Upscale, Full Service	0.940	0.951	0.956	0.905	0.965	0.967	0.960	0.959	0.964	0.967
Upscale, Extended Stay	0.937	0.951	0.952	0.955	0.955	0.957	0.954	0.959	0.965	0.974
Upscale, Full Service, Conversion Brand	0.950	0.965	0.964	0.927	0.951	0.958	0.951	0.957	0.961	0.973
Upscale, Limited Service	0.939	0.940	0.934	0.931	0.944	0.931	0.927	0.937	0.948	0.951

Figure 15 Cronbach Alpha for Each Brand Group over the 10-year History



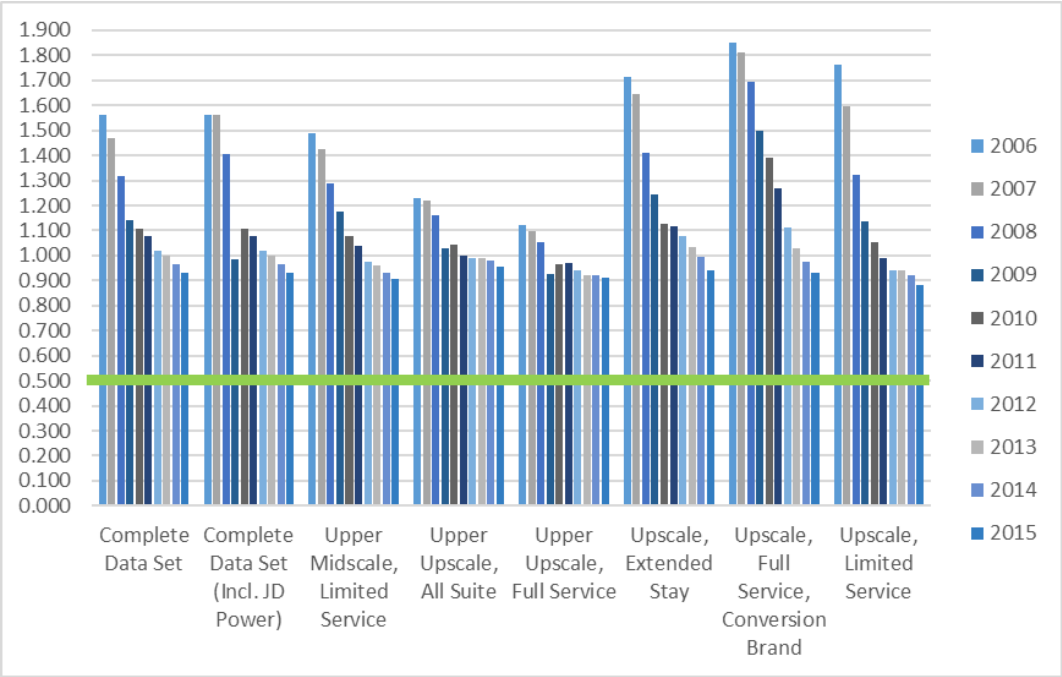
IV.3.1.3 Convergent Validity: Average Variance Extracted (AVE)

Convergent Validity ensures positive correlations with alternative measures in the construct with Average Variance Extracted ensuring convergent validity on the reflective constructs; for measurement purposes, Average Variance Extracted (AVE) should be higher than .50 (Table 16; Figure 16) (Hair Jr. et al., 2017). All Average Variance Extracted figures are above .50 for all years on all brand groups.

Table 16 Average Variance Extracted (AVE) for Each Brand Group over the 10-Year History

Latent Variables	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Complete Data Set	1.560	1.471	1.315	1.141	1.109	1.078	1.017	0.998	0.966	0.931
Complete Data Set (Incl. JD Power)	1.560	1.562	1.406	0.986	1.109	1.078	1.017	0.998	0.966	0.931
Upscale, Full Service, Conversion Brand	1.850	1.814	1.694	1.499	1.393	1.271	1.110	1.028	0.976	0.931
Upper Upscale, All Suite	1.232	1.218	1.160	1.030	1.045	0.999	0.989	0.990	0.980	0.956
Upscale, Limited Service	1.763	1.594	1.322	1.135	1.056	0.991	0.942	0.943	0.921	0.880
Upper Upscale, Full Service	1.119	1.096	1.052	0.927	0.968	0.968	0.938	0.919	0.919	0.914
Upscale, Extended Stay	1.715	1.646	1.411	1.246	1.126	1.115	1.076	1.034	0.992	0.941
Upper Midscale, Limited Service	1.489	1.423	1.290	1.175	1.080	1.040	0.977	0.961	0.930	0.905

Figure 16 Average Variance Extracted (AVE) for Each Brand Group over the 10-Year History



IV.3.1.4 Convergent Validity: Outer Loadings

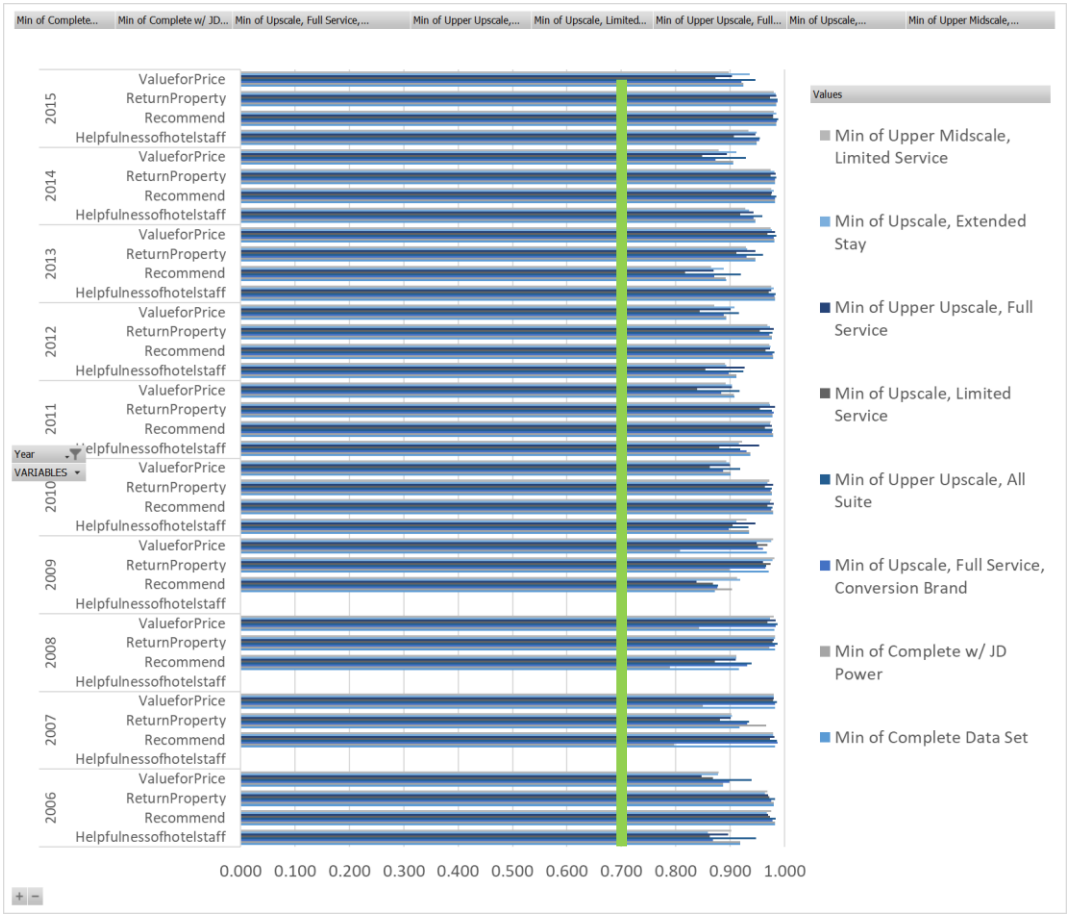
According to J. Hair, Sarstedt, Ringle, and Mena (2012b), Outer Loadings should be higher than .70 and represent the relationship between the Reflective Measurement variables. When the Outer Loadings are higher than .70, sufficient indicator reliability exists with the variables. All Outer Loading figures are above .70 for all years on all brand groups.

Table 17 Reflective Measurement Outer Loadings for All Models

OUTER LOADINGS	Min of Complete Data Set	Min of Complete w/ JD Power	Min of Upscale, Full Service, Conversion Brand	Min of Upper Upscale, All Suite	Min of Upscale, Limited Service	Min of Upper Upscale, Full Service	Min of Upscale, Extended Stay	Min of Upper Mid scale, Limited Service
2006	**0.887**	**0.887**	**0.869**	**0.939**	**0.863**	**0.847**	**0.859**	**0.879**
Helpfulness of Hotel Staff	0.918	0.918	0.869	0.948	0.863	0.896	0.859	0.902
Recommend Hotel	0.983	0.983	0.978	0.984	0.973	0.97	0.967	0.975
Intent to Return to Hotel	0.98	0.98	0.975	0.982	0.972	0.97	0.964	0.969
Value for Price Paid	0.887	0.887	0.899	0.939	0.869	0.847	0.878	0.879
2007	**0.917**	**0.797**	**0.931**	**0.935**	**0.881**	**0.901**	**0.903**	**0.902**
Helpfulness of Hotel Staff	DATA NOT GATHERED							
Recommend Hotel	0.983	0.797	0.987	0.986	0.973	0.981	0.979	0.979
Intent to Return to Hotel	0.917	0.966	0.931	0.935	0.881	0.901	0.903	0.902
Value for Price Paid	0.983	0.85	0.983	0.986	0.979	0.98	0.98	0.98
2008	**0.916**	**0.789**	**0.931**	**0.939**	**0.872**	**0.91**	**0.912**	**0.912**
Helpfulness of Hotel Staff	DATA NOT GATHERED							
Recommend Hotel	0.916	0.789	0.931	0.939	0.872	0.91	0.912	0.912
Intent to Return to Hotel	0.983	0.972	0.983	0.987	0.978	0.98	0.982	0.982
Value for Price Paid	0.981	0.843	0.984	0.987	0.968	0.984	0.973	0.98
2009	**0.872**	**0.808**	**0.876**	**0.878**	**0.868**	**0.838**	**0.918**	**0.913**
Helpfulness of Hotel Staff	DATA NOT GATHERED							
Recommend Hotel	0.872	0.903	0.876	0.878	0.868	0.838	0.918	0.913
Intent to Return to Hotel	0.971	0.899	0.965	0.966	0.974	0.96	0.978	0.981
Value for Price Paid	0.967	0.808	0.96	0.951	0.968	0.949	0.976	0.979
2010	**0.901**	**0.901**	**0.887**	**0.918**	**0.863**	**0.9**	**0.899**	**0.893**
Helpfulness of Hotel Staff	0.935	0.935	0.898	0.934	0.905	0.946	0.911	0.93
Recommend Hotel	0.979	0.979	0.976	0.978	0.969	0.98	0.973	0.976
Intent to Return to Hotel	0.977	0.977	0.974	0.977	0.964	0.979	0.969	0.972
Value for Price Paid	0.901	0.901	0.887	0.918	0.863	0.9	0.899	0.893
2011	**0.908**	**0.907**	**0.884**	**0.917**	**0.839**	**0.903**	**0.903**	**0.892**
Helpfulness of Hotel Staff	0.937	0.937	0.93	0.918	0.88	0.953	0.916	0.922
Recommend Hotel	0.979	0.979	0.977	0.978	0.964	0.977	0.973	0.974
Intent to Return to Hotel	0.978	0.978	0.98	0.977	0.955	0.982	0.973	0.972
Value for Price Paid	0.908	0.907	0.884	0.917	0.839	0.903	0.903	0.892
2012	**0.893**	**0.893**	**0.888**	**0.916**	**0.844**	**0.901**	**0.893**	**0.871**
Helpfulness of Hotel Staff	0.912	0.912	0.897	0.924	0.855	0.927	0.893	0.891
Recommend	0.979	0.979	0.978	0.981	0.965	0.973	0.974	0.972
Intent to Return to Hotel	0.977	0.977	0.972	0.978	0.955	0.98	0.973	0.969
Value for Price Paid	0.893	0.893	0.888	0.916	0.844	0.901	0.908	0.871
2013	**0.893**	**0.892**	**0.871**	**0.92**	**0.817**	**0.87**	**0.888**	**0.865**
Helpfulness of Hotel Staff	0.982	0.982	0.981	0.984	0.971	0.975	0.98	0.975
Recommend Hotel	0.893	0.892	0.871	0.92	0.817	0.87	0.888	0.865

Intent to Return to Hotel	0.946	0.946	0.93	0.96	0.911	0.946	0.931	0.929
Value for Price Paid	0.981	0.981	0.98	0.985	0.968	0.982	0.977	0.974
2014	**0.906**	**0.906**	**0.873**	**0.929**	**0.849**	**0.894**	**0.911**	**0.879**
Helpfulness of Hotel Staff	0.947	0.947	0.943	0.959	0.919	0.943	0.935	0.928
Recommend Hotel	0.982	0.982	0.983	0.985	0.976	0.977	0.98	0.975
Intent to Return to Hotel	0.982	0.982	0.982	0.985	0.974	0.984	0.981	0.974
Value for Price Paid	0.906	0.906	0.873	0.929	0.849	0.894	0.911	0.879
2015	**0.924**	**0.924**	**0.921**	**0.946**	**0.873**	**0.903**	**0.936**	**0.897**
Helpfulness of Hotel Staff	0.949	0.949	0.953	0.954	0.907	0.946	0.949	0.934
Recommend Hotel	0.985	0.985	0.986	0.988	0.979	0.979	0.985	0.98
Intent to Return to Hotel	0.985	0.985	0.987	0.987	0.973	0.985	0.984	0.98
Value for Price Paid	0.924	0.924	0.921	0.946	0.873	0.903	0.936	0.897
Maximum of ALL Years	**0.872**	**0.789**	**0.869**	**0.878**	**0.817**	**0.838**	**0.859**	**0.865**

Figure 17 Reflective Measurement Outer Loadings for All Models



*No data available for 2007 and 2008 related to Helpfulness of the Hotel Staff.

IV.3.1.5 Discriminant Validity: Cross Loadings

In reviewing all the Cross Loadings for the brand group of "Complete Data Set," the Cross Loadings in each of the 158 latent constructs* analyzed below are higher than all of the other loadings (Table 18-27), with the exception of 2007 in the Customer Recommendation and Customer Satisfaction: Experience construct for Problem Free Stays). Given that this is acceptable in all other years, this should be taken into consideration; however, this should not influence the overall interpretation of the direction for the data and the conclusions that can be drawn from the information.

*All brand group cross loadings are available upon request for the Dissertation Committee.

Table 18 Cross Loading for 2006, All Brand Groups

Cross Loading for 2006 Brand Group: Complete Data Set	CONTROLS	CONTROLS_RPI	Customer Recommendation	Customer Satisfaction: Experience	DV:RevPAR	Market Share(RPI)	Quality: Quality Assurance
STR@94AssetAge	**0.157**	-0.023	-0.323	-0.317	0.125	-0.106	-0.103
GUEST_ROOMS	**0.394**	-0.083	-0.378	-0.336	0.337	-0.143	-0.066
STR@2006_ADR_ADJ	**1.258**	-0.141	-0.420	-0.286	1.065	-0.025	-0.010
STR_c@2006OCCIndex	-0.148	**1.329**	0.062	0.029	0.347	1.126	0.178
CS@2006_Helpfulnessofhotelstaff	-0.428	0.082	**1.216**	1.177	-0.397	0.179	0.323
CS@2006_ReturnProperty	-0.412	0.074	**1.298**	1.262	-0.377	0.193	0.389
CS@2006_ValueforPrice	-0.475	-0.002	**1.175**	1.097	-0.451	0.033	0.272
CS_R@2006_Recommend	-0.382	0.071	**1.302**	1.277	-0.351	0.192	0.390
CS@2006_OverallExperience	-0.299	0.010	1.280	**1.320**	-0.305	0.128	0.391
CS@2006_ProblemFreeStays	-0.274	0.182	0.886	**0.969**	-0.154	0.230	0.455
STR@2006REVPAR_ADJ	1.066	0.329	-0.394	-0.284	**1.259**	0.313	0.099
STR@2006RevPARIndex	-0.027	1.126	0.163	0.144	0.330	**1.329**	0.187
QA@2006AverageofCleanliness	0.015	0.102	0.229	0.253	0.088	0.109	**0.813**
QA@2006AverageofCondition	-0.032	0.207	0.339	0.381	0.100	0.202	**1.227**
QA@2006AverageofStandards	-0.067	0.310	0.133	0.150	0.124	0.236	**0.481**

Table 19 Cross Loading for 2007, All Brand Groups

Cross Loadings for 2007 Brand Group: Complete Data Set	CONTROLS	CONTROLS_RPI	Customer Recommendation	Customer Satisfaction: Experience	DV:RevPAR	Market Share(RPI)	Quality: Quality Assurance
STR@2007_ADR_ADJ	**1.206**	-0.112	-0.416	-0.284	1.036	-0.037	0.040
STR@94AssetAge	**0.194**	-0.003	-0.367	-0.355	0.152	-0.093	-0.125
GUEST_ROOMS	**0.399**	-0.078	-0.386	-0.345	0.343	-0.143	-0.062
STR_c@2007OCCIndex	-0.114	**1.258**	0.061	0.024	0.323	1.077	0.221
CS@2007_ReturnProperty	-0.429	0.092	**1.240**	1.197	-0.369	0.206	0.411
CS@2007_ValueforPrice	-0.493	-0.004	**1.157**	1.043	-0.450	0.045	0.306
CS_R@2007_Recommend	-0.388	0.080	**1.240**	1.213	-0.336	0.201	0.419
CS@2007_ProblemFreeStays	-0.488	0.205	**1.399**	**1.319**	-0.315	0.305	0.647
CS@2007_OverallExperience	-0.320	0.033	1.205	**1.258**	-0.296	0.142	0.425
STR@2007REVPAR_ADJ	1.037	0.310	-0.380	-0.285	**1.208**	0.274	0.150
STR@2007RevPARIndex	-0.041	1.077	0.161	0.134	0.285	**1.258**	0.234
QA@2007AverageofCleanliness	0.087	0.103	0.241	0.254	0.140	0.114	**0.804**
QA@2007AverageofCondition	-0.001	0.211	0.358	0.377	0.117	0.223	**1.125**
QA@2007AverageofStandards	-0.031	0.171	0.229	0.225	0.081	0.167	**0.668**

Table 20 Cross Loading for 2008, All Brand Groups

Cross Loadings for 2008 Brand Group: Complete Data Set	CONTROLS	CONTROLS_RPI	Customer Recommendation	Customer Satisfaction: Experience	DV:RevPAR	LOYALTY	Market Share(RPI)	Moderating Effect: H3	Quality: Quality Assurance
STR@2008_ADR_ADJ	**1.144**	-0.053	-0.359	-0.262	0.970	-0.002	0.004	0.008	0.121
STR@94AssetAge	**0.238**	0.053	-0.398	-0.392	0.185	-0.055	-0.038	0.048	-0.095
GUEST_ROOMS	**0.397**	-0.063	-0.374	-0.351	0.339	-0.133	-0.126	0.017	-0.013
STR_c@2008OCCIndex	-0.043	**1.175**	-0.047	-0.061	0.404	0.301	1.038	-0.065	0.155
CS@2008_Recommend	-0.342	-0.022	**1.174**	1.153	-0.341	0.062	0.104	-0.048	0.323
CS@2008_ReturnProperty	-0.379	-0.012	**1.171**	1.139	-0.372	0.059	0.110	-0.049	0.320
CS@2008_ValueforPrice	-0.438	-0.113	**1.094**	0.993	-0.452	0.013	-0.062	-0.039	0.236
CS@2008_ProblemFreeStays	-0.405	0.142	0.824	**0.883**	-0.301	0.161	0.218	-0.064	0.317
CS@2008_OverallExperience	-0.295	-0.066	1.143	**1.194**	-0.321	0.041	0.058	-0.056	0.338
STR@2008REVPAR_ADJ	0.973	0.395	-0.386	-0.311	**1.150**	0.226	0.354	-0.020	0.175
LOYALTY@2008_ALL_CONTRIBUTION	0.001	0.304	0.048	0.043	0.233	**1.186**	0.276	-0.592	0.102
STR@2008RevPARIndex	0.008	1.038	0.058	0.060	0.361	0.274	**1.175**	-0.047	0.171
Quality: Quality Assurance * LOYALTY	0.011	-0.055	-0.040	-0.047	-0.017	-0.499	-0.040	**1.000**	-0.168
QA@2008AverageofCleanliness	0.095	0.010	0.199	0.223	0.103	0.015	0.026	-0.076	**0.784**
QA@2008AverageofCondition	0.126	0.174	0.271	0.298	0.189	0.109	0.192	-0.175	**1.050**

QA@2008AverageofStandards	-0.010	0.145	0.211	0.230	0.075	0.095	0.140	-0.216	**0.810**

Table 21 Cross Loading for 2009, All Brand Groups

Cross Loadings for 2009 Brand Group: Complete Data Set	CONTROLS	CONTROLS_RPI	Customer Recommendation	Customer Satisfaction: Experience	DV:RevPAR	LOYALTY	Market Share(RPI)	Moderating Effect: H3	Quality: Quality Assurance
STR@2009_ADR_ADJ	**1.097**	0.003	-0.189	-0.128	0.918	0.127	0.121	-0.003	0.103
STR@94AssetAge	**0.221**	0.071	-0.308	-0.328	0.171	-0.065	-0.013	0.008	-0.085
GUEST_ROOMS	**0.372**	-0.064	-0.223	-0.232	0.314	-0.197	-0.109	0.011	-0.027
STR_c@2009OCCIndex	0.018	**1.113**	-0.104	-0.132	0.431	0.562	0.854	-0.131	0.157
CS@2009_Recommend	-0.187	-0.075	**1.106**	1.033	-0.237	0.023	-0.014	0.031	0.286
CS@2009_ReturnProperty	-0.199	-0.070	**1.102**	1.015	-0.249	0.016	-0.010	0.034	0.283
CS@2009_ValueforPrice	-0.244	-0.168	**0.994**	0.852	-0.295	-0.089	-0.162	0.033	0.220
CS@2009_OverallExperience	-0.148	-0.143	1.035	**1.138**	-0.228	-0.030	-0.071	0.056	0.270
CS@2009_ProblemFreeStays	-0.310	0.068	0.619	**0.692**	-0.270	0.096	0.090	-0.010	0.232
STR@2009REVPAR_ADJ	0.922	0.428	-0.267	-0.228	**1.104**	0.517	0.445	-0.042	0.147
LOYALTY@2009_ALL_CONTRIBUTION	0.140	0.572	-0.013	-0.024	0.531	**1.133**	0.551	-0.070	0.208
STR@2009RevPARIndex	0.132	0.867	-0.060	-0.064	0.456	0.549	**1.129**	-0.107	0.178
Quality: Quality Assurance * LOYALTY	-0.002	-0.118	0.030	0.047	-0.038	-0.061	-0.095	**1.000**	-0.312
QA@2009AverageofCleanliness	0.047	0.040	0.221	0.209	0.050	0.091	0.050	-0.179	**0.868**
QA@2009AverageofCondition	0.111	0.192	0.231	0.228	0.184	0.229	0.214	-0.376	**0.946**
QA@2009AverageofStandards	-0.001	0.170	0.131	0.138	0.073	0.136	0.163	-0.166	**0.573**

Table 22 Cross Loading for 2010, All Brand Groups

Cross Loading for 2010 Brand Group: Complete Data Set	CONTROLS	CONTROLS_RPI	Customer Satisfaction: Experience	Customer Satisfaction: Recommendation	DV:RevPAR	LOYALTY	Market Share(RPI)	Moderating Effect: H3	Quality: Quality Assurance
STR@2010_ADR_ADJ	**1.079**	-0.014	-0.187	-0.275	0.951	0.136	0.070	-0.016	0.071
STR@94AssetAge	**0.168**	0.010	-0.433	-0.433	0.142	-0.117	-0.095	0.016	-0.127
GUEST_ROOMS	**0.368**	-0.090	-0.342	-0.372	0.327	-0.198	-0.158	0.013	-0.057
STR_c@2010OCCIndex	-0.009	**1.087**	0.008	0.021	0.296	0.403	0.921	-0.140	0.193
CS@2010_OverallExperience	-0.204	0.004	**1.110**	1.079	-0.230	0.131	0.111	-0.020	0.324
CS@2010_ProblemFreeStays	-0.316	0.142	**0.838**	0.792	-0.273	0.198	0.215	-0.053	0.297
CS@2010_Helpfulnessofhotelstaff	-0.209	0.011	1.018	**1.038**	-0.243	0.108	0.110	-0.002	0.280
CS@2010_ReturnProperty	-0.265	0.055	1.064	**1.085**	-0.271	0.163	0.170	-0.030	0.317
CS@2010_ValueforPrice	-0.440	-0.037	0.923	**1.000**	-0.413	0.115	0.006	-0.003	0.231
CS_R@2010_Recommend	-0.236	0.044	1.076	**1.087**	-0.246	0.163	0.159	-0.031	0.322

STR@2010REVPAR_ADJ	0.952	0.295	-0.227	-0.297	**1.081**	0.428	0.270	-0.060	0.131
LOYALTY@2010_ALL_CONTRIBUTION	0.142	0.411	0.134	0.145	0.438	**1.107**	0.404	-0.109	0.208
STR@2010RevPARIndex	0.073	0.921	0.113	0.119	0.271	0.396	**1.087**	-0.114	0.214
Quality: Quality Assurance * LOYALTY	-0.015	-0.128	-0.019	-0.016	-0.056	-0.099	-0.105	**1.000**	-0.293
QA@2010AverageofCleanliness	-0.016	0.015	0.136	0.130	-0.007	0.038	0.042	-0.035	**0.463**
QA@2010AverageofCondition	0.074	0.202	0.314	0.294	0.142	0.208	0.219	-0.333	**1.071**
QA@2010AverageofStandards	0.032	0.134	0.154	0.139	0.081	0.155	0.132	-0.201	**0.525**

Table 23 Cross Loading for 2011, All Brand Groups

Cross Loading for 2011 Brand Group: Complete Data Set	CONTROLS	CONTROLS_RPI	Customer Recommendation	Customer Satisfaction: Experience	DV:RevPAR	LOYALTY	Market Share(RPI)	Moderating Effect: H3	Quality: Quality Assurance
STR@2011_ADR_ADJ	**1.069**	-0.044	-0.299	-0.198	0.961	0.102	0.036	-0.001	-0.013
STR@94AssetAge	**0.133**	-0.043	-0.449	-0.448	0.119	-0.166	-0.136	0.081	-0.250
GUEST_ROOMS	**0.366**	-0.106	-0.402	-0.358	0.332	-0.231	-0.169	0.070	-0.129
STR_c@2011OCCIndex	-0.041	**1.075**	0.101	0.081	0.216	0.357	0.903	-0.019	0.098
CS@2011_Helpfulnessofhotelstaff	-0.240	0.090	**1.023**	1.002	-0.242	0.228	0.173	-0.106	0.618
CS@2011_ReturnProperty	-0.256	0.126	**1.068**	1.046	-0.244	0.254	0.232	-0.125	0.672
CS@2011_ValueforPrice	-0.457	0.046	**0.991**	0.919	-0.418	0.187	0.081	-0.078	0.552
CS_R@2011_Recommend	-0.222	0.120	**1.069**	1.055	-0.211	0.263	0.229	-0.130	0.679
CS@2011_OverallExperience	-0.196	0.079	1.059	**1.092**	-0.199	0.222	0.178	-0.103	0.700
CS@2011_ProblemFreeStays	-0.300	0.164	0.808	**0.836**	-0.258	0.250	0.236	-0.101	0.529
STR@2011REVPAR_ADJ	0.962	0.215	-0.282	-0.198	**1.070**	0.364	0.193	0.017	-0.004
LOYALTY@2011_ALL_CONTRIBUTION	0.112	0.362	0.246	0.224	0.371	**1.091**	0.359	-0.076	0.183
STR@2011RevPARIndex	0.041	0.903	0.189	0.178	0.194	0.354	**1.075**	-0.049	0.146
Quality: Quality Assurance * LOYALTY	-0.002	-0.017	-0.107	-0.095	0.016	-0.070	-0.045	**1.000**	-0.235
QA@2011AverageofCleanliness	-0.023	0.053	0.638	0.669	-0.032	0.141	0.099	-0.249	**1.043**
QA@2011AverageofCondition	0.021	0.164	0.378	0.407	0.072	0.194	0.200	-0.132	**0.636**
QA@2011AverageofStandards	-0.011	0.150	0.231	0.242	0.043	0.153	0.145	-0.126	**0.378**

Table 24 Cross Loading for 2012, All Brand Groups

Cross Loadings for 2012 Brand Group: Complete Data Set	CONTROLS	CONTROLS_RPI	Customer Recommendation	Customer Satisfaction: Experience	DV:RevPAR	LOYALTY	Market Share(RPI)	Moderating Effect: H3	Quality: Quality Assurance
STR@2012_ADR_ADJ	**1.057**	-0.079	-0.301	-0.196	0.958	0.093	0.019	-0.016	-0.008
STR@94AssetAge	**0.131**	-0.058	-0.459	-0.463	0.119	-0.188	-0.140	0.101	-0.219

GUEST_ROOMS	**0.374**	-0.113	-0.410	-0.373	0.341	-0.234	-0.169	0.076	-0.115
STR_c@2012OCCIndex	-0.078	**1.060**	0.148	0.123	0.162	0.357	0.781	-0.008	0.052
CS@2012_Helpfulnessofhotelstaff	-0.240	0.115	**0.977**	0.943	-0.242	0.219	0.156	-0.094	0.457
CS@2012_ReturnProperty	-0.243	0.169	**1.047**	1.027	-0.219	0.278	0.222	-0.115	0.532
CS@2012_ValueforPrice	-0.474	0.110	**0.958**	0.883	-0.415	0.234	0.077	-0.094	0.434
CS_R@2012_Recommend	-0.213	0.161	**1.049**	1.039	-0.191	0.286	0.217	-0.123	0.539
CS@2012_OverallExperience	-0.194	0.123	1.037	**1.072**	-0.186	0.257	0.177	-0.120	0.554
CS@2012_ProblemFreeStays	-0.270	0.169	0.827	**0.859**	-0.228	0.252	0.228	-0.104	0.436
STR@2012REVPAR_ADJ	0.958	0.162	-0.273	-0.185	**1.058**	0.344	0.167	0.006	0.000
LOYALTY@2012_ALL_CONTRIBUTION	0.099	0.361	0.271	0.258	0.349	**1.071**	0.356	-0.050	0.146
STR@2012RevPARIndex	0.022	0.783	0.181	0.177	0.168	0.353	**1.063**	-0.036	0.094
Quality: Quality Assurance * LOYALTY	-0.015	-0.008	-0.106	-0.113	0.006	-0.047	-0.034	**1.000**	-0.018
QA@2012AverageofCleanliness	-0.010	0.013	0.494	0.523	-0.026	0.069	0.058	0.021	**1.011**
QA@2012AverageofCondition	0.029	0.116	0.367	0.391	0.081	0.233	0.129	-0.083	**0.758**
QA@2012AverageofStandards	-0.041	0.068	0.330	0.343	-0.007	0.183	0.100	-0.071	**0.664**

Table 25 Cross Loading for 2013, All Brand Groups

Cross Loadings for 2013 Brand Group: Complete Data Set	**CONTROLS**	**CONTROLS_RPI**	**Customer Recommendation**	**Customer Satisfaction: Experience**	**DV:RevPAR**	**LOYALTY**	**Market Share(RPI)**	**Moderating Effect: H3**	**Quality: Quality Assurance**
STR@2013_ADR_ADJ	**1.041**	-0.091	-0.293	-0.177	0.950	0.075	-0.023	-0.019	0.000
STR@94AssetAge	**0.137**	-0.050	-0.493	-0.499	0.124	-0.202	-0.144	0.119	-0.242
GUEST_ROOMS	**0.382**	-0.100	-0.429	-0.393	0.348	-0.255	-0.180	0.120	-0.132
STR_c@2013OCCIndex	-0.092	**1.042**	0.121	0.097	0.134	0.367	0.864	0.042	0.096
CS@2013_Helpfulnessofhotelstaff	-0.255	0.113	**0.993**	0.967	-0.240	0.229	0.190	-0.125	0.620
CS@2013_ReturnProperty	-0.235	0.141	**1.031**	1.021	-0.221	0.238	0.246	-0.136	0.655
CS@2013_ValueforPrice	-0.487	0.071	**0.938**	0.863	-0.431	0.190	0.090	-0.098	0.517
CS@2013_Recommend	-0.206	0.130	**1.031**	1.028	-0.195	0.239	0.236	-0.146	0.661
CS@2013_OverallExperience	-0.180	0.093	1.023	**1.050**	-0.174	0.235	0.196	-0.139	0.679
CS@2013_ProblemFreeStays	-0.260	0.166	0.826	**0.854**	-0.219	0.246	0.243	-0.125	0.550
STR@2013REVPAR_ADJ	0.950	0.134	-0.275	-0.176	**1.041**	0.324	0.101	0.012	0.003
LOYALTY@2013_ALL_CONTRIBUTION	0.073	0.370	0.236	0.238	0.326	**1.050**	0.339	-0.032	0.147
STR@2013RevPARIndex	-0.025	0.864	0.203	0.199	0.101	0.337	**1.042**	0.001	0.155
Quality: Quality Assurance * LOYALTY	-0.017	0.041	-0.128	-0.133	0.011	-0.030	0.001	**1.000**	-0.146
QA@2013AverageofCleanliness	-0.017	0.066	0.636	0.664	-0.028	0.098	0.130	-0.141	**1.026**
QA@2013AverageofCondition	0.034	0.176	0.360	0.390	0.107	0.272	0.185	-0.097	**0.604**
QA@2013AverageofStandards	0.051	0.104	0.271	0.290	0.094	0.173	0.111	-0.115	**0.449**

Table 26 Cross Loading for 2014, All Brand Groups

Cross Loadings for 2014 Brand Group: Complete Data Set	CONTROLS	CONTROLS_RPI	Customer Recommendation	Customer Satisfaction: Experience	DV:RevPAR	LOYALTY	Market Share(RPI)	Moderating Effect: H3	Quality: Quality Assurance
STR@2014_ADR_ADJ	**1.025**	-0.108	-0.289	-0.177	0.939	0.025	-0.053	0.011	-0.016
STR@94AssetAge	**0.131**	-0.036	-0.489	-0.491	0.119	-0.197	-0.130	0.090	-0.240
GUEST_ROOMS	**0.379**	-0.107	-0.425	-0.387	0.347	-0.267	-0.184	0.122	-0.141
STR_c@2014OCCIndex	-0.108	**1.025**	0.148	0.140	0.117	0.384	0.859	-0.018	0.127
CS@2014_Helpfulnessofhotelstaff	-0.249	0.146	**0.975**	0.947	-0.231	0.226	0.217	-0.118	0.606
CS@2014_ReturnProperty	-0.233	0.164	**1.011**	0.996	-0.222	0.217	0.260	-0.109	0.644
CS@2014_ValueforPrice	-0.476	0.103	**0.933**	0.860	-0.429	0.179	0.124	-0.091	0.524
CS@2014_Recommend	-0.198	0.151	**1.010**	1.002	-0.191	0.216	0.249	-0.109	0.649
CS@2014_OverallExperience	-0.177	0.137	0.999	**1.029**	-0.166	0.229	0.224	-0.116	0.670
CS@2014_ProblemFreeStays	-0.251	0.207	0.832	**0.862**	-0.205	0.248	0.269	-0.101	0.557
STR@2014REVPAR_ADJ	0.939	0.117	-0.273	-0.168	**1.025**	0.274	0.078	0.010	-0.003
LOYALTY@2014_ALL_CONTRIBUTION	0.024	0.386	0.220	0.232	0.275	**1.030**	0.354	-0.084	0.154
STR@2014RevPARIndex	-0.053	0.859	0.225	0.226	0.078	0.353	**1.025**	-0.025	0.176
Quality: Quality Assurance * LOYALTY	0.011	-0.017	-0.109	-0.113	0.009	-0.082	-0.024	**1.000**	-0.152
QA@2014AverageofCleanliness	-0.024	0.083	0.625	0.653	-0.027	0.107	0.138	-0.154	**1.002**
QA@2014AverageofCondition	0.007	0.217	0.382	0.418	0.076	0.238	0.226	-0.091	**0.643**
QA@2014AverageofStandards	0.042	0.167	0.237	0.255	0.099	0.175	0.148	-0.088	**0.392**

Table 27 Cross Loading for 2015, All Brand Groups

Cross Loading for 2015 Brand Group: Complete Data Set	CONTROLS	CONTROLS_RPI	Customer Recommendation	Customer Satisfaction: Experience_	DV:RevPAR	LOYALTY	Market Share(RPI)	Moderating Effect: H3	Quality: Quality Assurance
GUEST_ROOMS	**0.393**	-0.104	-0.414	-0.372	0.359	-0.237	-0.181	0.072	-0.113
STR@2015_ADR_ADJ	**1.004**	-0.103	-0.280	-0.171	0.918	0.063	-0.065	-0.028	0.001
STR@94AssetAge	**0.152**	-0.022	-0.510	-0.516	0.139	-0.187	-0.119	0.063	-0.241
STR_c@2015OCCIndex	-0.103	**1.005**	0.133	0.118	0.123	0.430	0.842	-0.013	0.119
CS@2015_Helpfulnessofhotelstaff	-0.248	0.125	**0.953**	0.927	-0.232	0.173	0.206	-0.069	0.574
CS@2015_ReturnProperty	-0.226	0.152	**0.989**	0.981	-0.217	0.171	0.255	-0.067	0.617
CS@2015_Recommend	-0.200	0.143	**0.989**	0.985	-0.193	0.173	0.247	-0.074	0.628
CS@2015_ValueforPrice	-0.453	0.085	**0.927**	0.871	-0.418	0.126	0.132	-0.047	0.527
CS@2015_ProblemFreeStays	-0.245	0.205	0.841	**0.858**	-0.197	0.212	0.268	-0.066	0.533
CS@2015_OverallExperience	-0.175	0.113	0.980	**1.004**	-0.170	0.174	0.214	-0.067	0.637
STR@2015REVPAR_ADJ	0.918	0.123	-0.270	-0.173	**1.004**	0.316	0.070	-0.015	0.010

LOYALTY@2015_ALL_CONTRIBUTION	0.061	0.430	0.168	0.177	0.316	**1.005**	0.383	-0.033	0.146
STR@2015RevPARIndex	-0.066	0.842	0.221	0.218	0.070	0.383	**1.005**	-0.023	0.179
Quality: Quality Assurance * LOYALTY	-0.027	-0.013	-0.067	-0.067	-0.015	-0.033	-0.022	**1.000**	-0.165
QA@2015AverageofCleanliness	-0.018	0.081	0.606	0.627	-0.020	0.104	0.149	-0.157	**0.989**
QA@2015AverageofCondition	0.080	0.224	0.339	0.371	0.153	0.242	0.227	-0.098	**0.586**
QA@2015AverageofStandards	0.006	0.187	0.248	0.256	0.069	0.223	0.160	-0.153	**0.404**

IV.3.1.6 Discriminant Validity: Heterotrait-monotrait (HTMT) Ratio of Correlations

Discriminant Validity is a measurement intended to ensure that constructs are unique and represent the phenomena that are being modeled (Hair Jr. et al., 2017). According to Hair Jr. et al. (2017), threshold values for Discriminant Validity measurement of Heterotrait-monotrait (HTMT) ratio must be below .90.

Table 28 Model Variables Under Review

Model Variables	Description
CONTROLS	Control variables for Dependent Variable
CONTROLS_RPI	Control variables for Market Share (RPI) construct
Customer Recommendation	Customer Recommendation is the Reflective Measurement construct determining customer intent to return (and drive Market Share).
Customer Satisfaction: Experience	Customer Experience is the Formative Measurement construct influenced by Quality Assurance and moderating variables.
DV	Dependent Variable of Revenue Per Available Room (REVPAR)
JD_POWERS (Rank)	Brand Signaling moderating variable interacting with Quality and Experienced
LOYALTY	Brand Association moderating variable interacting with Quality and Experienced
Market Share (RPI)	Demand variable as the intermediary between the Recommendation (intent for future purchases) and dependent variable.
Moderating Effect: H2	Moderating effect with Brand Association.
Moderating Effect: H3	Moderating effect with Brand Signaling.

For Discriminant Validity with the entire model, with the eight brand groups over the 10-year period, the PLS output was 80 models. Rather than listing all of the HTMT models in the paper, the following are the maximum values represented for all calculations (Table 29). All model HTMT values are included in the Appendix under the PLS Model Variables section.

Table 29 Maximum Figure for ALL HTMT Tables

Latent Variables	Max of CONTROLS_RPI	Max of Customer Recommendation	Max of DV	Max of JD_POWER (RANK)	Max of Loy-alty	Max of Market Share (RPI)	Max of Moder-ating Effect: H2	Max of Moder-ating Effect: H3
Customer Recommendation	0.278							
Customer Satisfaction: Recommendation	0.124							
DV	0.688	0.364						
JD_POWERS (Rank)	0.162	0.524	0.209					
LOYALTY	0.735	0.344	0.704	0.393				
Market Share (RPI)	0.927*	0.379	0.691	0.277	0.511	0.688		
Moderating Effect: H2	0.081	0.173	0.032	0.266	0.157	0.094		
Moderating Effect: H3	0.266	0.317	0.279	0.138	0.594	0.816	0.506	0.223
Maximum Score	**0.927**	0.524	0.704	0.393	0.594	0.816	0.506	0.223

* See Table 30 for an explanation of variables exceeding .90.

Figure 18 Maximum Figure for ALL HTMT Tables

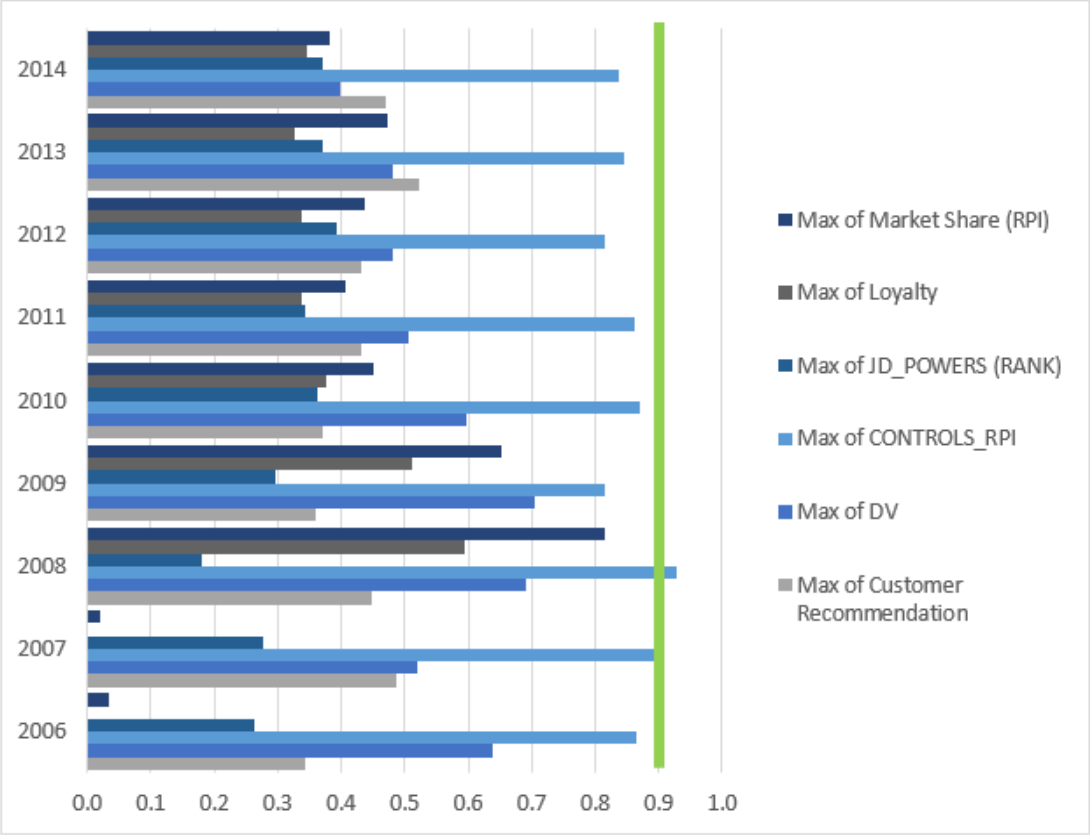
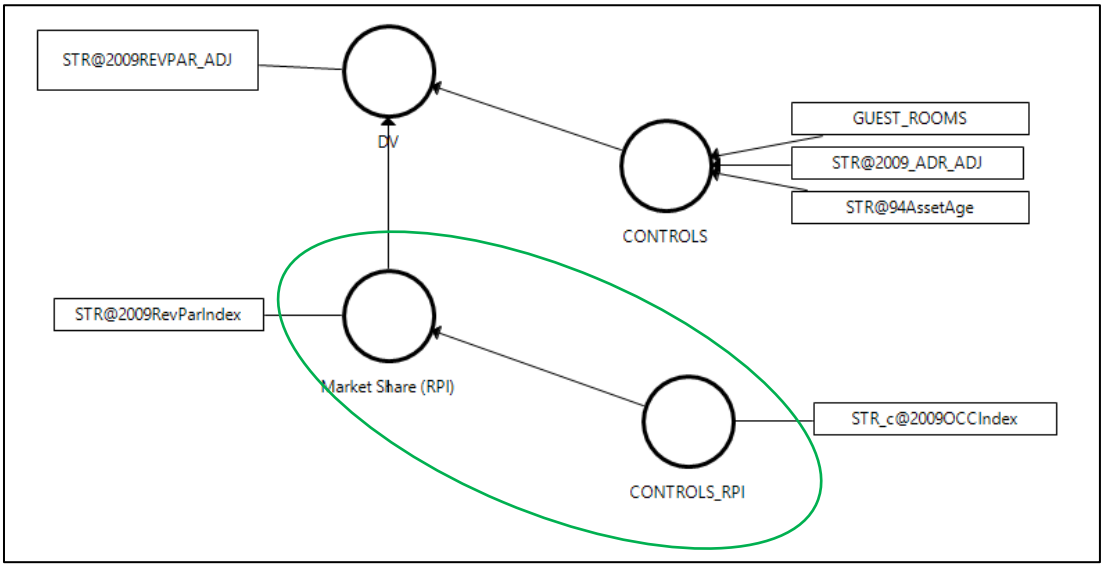


Table 30 Special Note for HTMT Variable Exceeding .90

The market share (RPI) variables are marginally above the .90 threshold; however, all other years for each of these brand groups are compliant with the model well within range. Given that this is a conflict between the variable and control, this is less of a concern and does not impact the overall measurement model. The controls are not a part of the analysis; therefore, this conflict, which is marginally over the threshold, does not pose an issue with the calculations.

Year	Brand Group	Latent Variables	CONTROLS_RPI	Customer Recommendation	Loyalty	Market Share (RPI)	Moderating Effect: H3
2008	Upscale Class, Limited Service	Customer Recommendation	0.153				
2008	Upscale Class, Limited Service	DV	0.521	0.331			
2008	Upscale Class, Limited Service	LOYALTY	0.615	0.141			
2008	Upscale Class, Limited Service	Market Share (RPI)	0.927	0.062		0.536	
2008	Upscale Class, Limited Service	Moderating Effect: H3	0.051	0.054		0.100	0.033
2008	Upscale Class, Extended Stay	Customer Recommendation	0.151				
2008	Upscale Class, Extended Stay	DV	0.688	0.201			
2008	Upscale Class, Extended Stay	LOYALTY	0.735	0.085			

2008	**Upscale Class, Extended Stay**	**Market Share (RPI)**	**0.914**	**0.105**		**0.688**	
2008	**Upscale Class, Extended Stay**	**Moderating Effect: H3**	**0.007**	**0.065**		**0.019**	**0.050**
2009	**Upscale Class, Extended Stay**	**Customer Recommendation**	**0.238**				



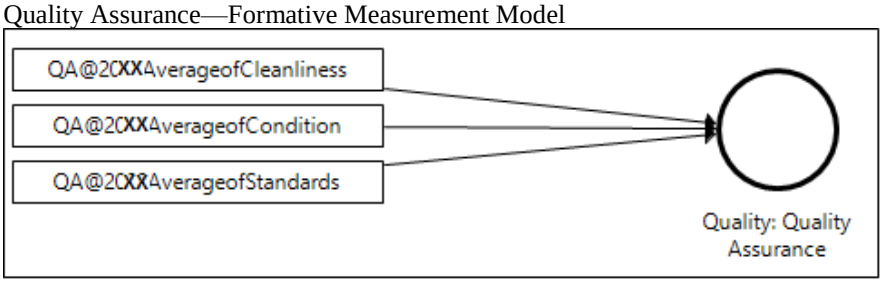
IV.3.2 *Formative Measurement Model(s) Validation*

Formative Measurement Models (Mode B measurement) also have a history with social science and are, "based on the assumption that causal indicators form the construct by means of linear combinations" (Hair Jr. et al., 2017). Formative measurement indicators are not interchangeable, unlike Reflective indicators.

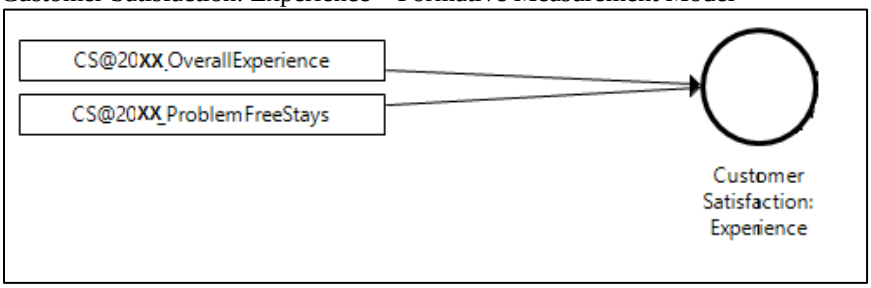
This study has two sets of Formative Measurement models for measuring Quality: Quality Assurance (19) and Customer Satisfaction: Experience (Figure 19). These variables are considered the components that drive customer expectation (and disconfirmation) within the Expectation Confirmation Theory cycle. As discussed, hotels that have a mastery of this chain of customer touch points ultimately capture greater market share (RPI).

Figure 19 Quality Assurance—Formative Measurement Model & Customer Satisfaction: Experience – Formative Measurement Model

Quality Assurance—Formative Measurement Model



Customer Satisfaction: Experience—Formative Measurement Model



Similar to the Reflective model, to ensure confidence with the model and the outputs, the constructs must achieve minimum thresholds when tested with the following areas:

- Significance: Bootstrapping (T-Values)
- Collinearity Statistics (VIF)

All of these variables were reviewed and validated for the eight brand groups over the 10-year period where secondary data was collected.

IV.3.2.1 Significance: T-Values (Bootstrapping)

Assessing the significance and relevance of all the Formative indicators is important toward understanding the confidence intervals and if the data set is within the ”true population parameters” (Joe F. Hair et al., 2011a). For the analysis, the significance or T-values that are greater than 1.96 ($p < 0.05$) represent p-value of 0.05%. The majority of all T-values within the model are greater than 1.96 ($p < 0.05$ or better) and in many cases are above the figure (Table

31) with the exception of the moderating models. Given the sample size used for the analysis, many of these numbers inherently serve to be significant. For each of the analysis areas, the significance variables are brought forward for deeper analysis.

Table 31 Significance: T-Values for All Data Models (Bootstrapping)

Significance Values (T-Values)	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Market Share (RPI) -> DV										
Complete Data Set	13.768	14.127	18.072	21.67	14.324	13.35	11.427	11.028	11.482	13.19
Complete Data Set (Incl. JD Power)	13.382	14.113	18.053	21.367	14.91	12.532	11.269	11.194	11.021	12.755
Upscale Class, Full Service, Conversion Brand	4.653	4.505	4.548	5.346	3.768	4.309	5.217	3.972	3.874	4.227
Upper Upscale Class, All Suite	3.423	3.285	4.894	5.801	3.927	3.094	3.211	2.397	2.266	3.474
Upscale Class, Limited Service	5.924	7.306	7.544	7.564	4.652	3.846	3.652	3.289	4.859	4.735
Upper Upscale Class, Full Service	5.016	4.382	4.379	5.966	3.347	2.399	3.526	2.322	2.433	2.006
Upscale Class, Extended Stay	8.534	5.626	9.970	11.177	6.954	5.618	4.289	5.742	6.059	7.401
Upper Midscale Class, Limited Service	9.069	9.199	12.719	17.005	12.375	10.867	9.061	9.779	9.149	10.071

IV.3.2.2 Collinearity Statistics (VIF)

Formative Measurement Models are dissimilar to Reflective measurements since they are not considered interchangeable. Therefore, high correlations need to be accounted for between variables and removed to prevent problems with the data calculations. Collinearity issues occur when two (or more) indicators in the formative block potential indicate similar behaviors or relationships (Hair Jr. et al., 2017). The measurement used for determining collinearity with the formative variables is Variance Inflation Factor (VIF). A VIF collinearity value of 5 or higher indicates that potentially 80 percent of the variance can be accounted for with other formative indicators in the construct (Hair Jr. et al., 2017). All VIF values are below the threshold of 5.

Therefore, there is no indication that collinearity exists amongst the variables in the construct (Table 32).

Table 32 Variance Inflation Factor (VIF) for Collinearity Issues

Variance Inflation Factor (VIF)	Max of Complete Data Set (Incl. JD Power)	Max of Upscale Class, Full Service, Conversion Brand	Max of Upper Upscale Class, All Suite	Max of Upscale Class, Limited Service	Max of Upper Upscale Class, Full Service	Max of Upscale Class, Extended Stay	Max of Upper Midscale Class, Limited Service
2006	**1.83**	**2.321**	**2.461**	**1.251**	**1.694**	**2.207**	**1.666**
Customer Satisfaction: Experience							
CS: Overall Experience	1.83	2.321	2.461	1.251	1.694	2.207	1.666
CS: Problem Free Stay	1.83	2.321	2.461	1.251	1.694	2.207	1.666
Quality: Quality Assurance							
QA: Cleanliness	1.201	1.455	1.129	1.177	1.285	1.154	1.162
QA: Condition	1.257	1.604	1.256	1.075	1.286	1.2	1.261
QA: Standards	1.306	1.665	1.271	1.176	1.455	1.25	1.282
2007	**1.259**	**2.969**	**2.901**	**1.412**	**1.79**	**1.253**	**1.268**
Customer Satisfaction: Experience							
CS: Overall Experience	-3.268	2.969	2.901	1.412	1.79	1.253	1.268
CS: Problem Free Stay	-3.268	2.969	2.901	1.412	1.79	1.253	1.268
Quality: Quality Assurance							
QA: Cleanliness	1.091	1.248	1.083	1.124	1.176	1.087	1.076
QA: Condition	1.259	1.825	1.276	1.28	1.341	1.149	1.215
QA: Standards	1.249	1.584	1.222	1.235	1.274	1.224	1.212
2008	**2.15**	**2.481**	**3.581**	**1.616**	**2.461**	**3.385**	**1.722**
Customer Satisfaction: Experience							
CS: Overall Experience	2.15	2.481	3.581	1.616	2.461	3.385	1.722
CS: Problem Free Stay	2.15	2.481	3.581	1.616	2.461	3.385	1.722
Quality: Quality Assurance							
QA: Cleanliness	1.188	1.464	1.109	1.078	1.282	1.217	1.219
QA: Condition	1.305	1.671	1.362	1.124	1.277	1.254	1.339
QA: Standards	1.325	1.436	1.394	1.146	1.38	1.475	1.346
2009	**1.489**	**1.323**	**1.278**	**1.76**	**1.409**	**2.329**	**1.661**
Customer Satisfaction: Experience							
CS: Overall Experience	1.489	1.323	1.278	1.76	1.409	2.329	1.661
CS: Problem Free Stay	1.489	1.323	1.278	1.76	1.409	2.329	1.661
Quality: Quality Assurance							
QA: Cleanliness	1.143	1.257	1.118	1.151	1.093	1.289	1.123
QA: Condition	1.258	1.31	1.093	1.207	1.176	1.355	1.36
QA: Standards	1.24	1.317	1.204	1.201	1.234	1.577	1.283
2010	**2.203**	**2.034**	**2.261**	**1.964**	**1.927**	**2.607**	**1.889**
Customer Satisfaction: Experience							
CS: Overall Experience	2.203	2.034	2.261	1.964	1.927	2.607	1.889
CS: Problem Free Stay	2.203	2.034	2.261	1.964	1.927	2.607	1.889
Quality: Quality Assurance							
QA: Cleanliness	1.097	1.165	1.106	1.183	1.313	1.092	1.065
QA: Condition	1.185	1.118	1.114	1.121	1.141	1.277	1.215
QA: Standards	1.22	1.257	1.207	1.223	1.375	1.256	1.209
2011	**2.698**	**2.738**	**3.34**	**2.047**	**2.185**	**3.078**	**1.976**
Customer Satisfaction: Experience							
CS: Overall Experience	2.698	2.738	3.34	2.047	2.185	3.078	1.976
CS: Problem Free Stay	2.316	2.583	2.877	1.77	1.946	2.986	1.786
Quality: Quality Assurance							
QA: Cleanliness	1.173	1.132	1.23	1.226	1.069	1.207	1.163
QA: Condition	1.184	1.124	1.334	1.187	1.089	1.167	1.187
QA: Standards	1.121	1.13	1.12	1.069	1.094	1.109	1.121
2012	**2.698**	**2.738**	**3.34**	**2.047**	**2.185**	**3.078**	**1.976**

Customer Satisfaction: Experience							
CS: Problem Free Stay	2.698	2.738	3.34	2.047	2.185	3.078	1.976
Quality: Quality Assurance							
QA: Cleanliness	1.44	1.145	1.526	1.662	1.232	1.796	1.56
QA: Condition	1.482	1.325	1.909	1.674	1.249	1.593	1.458
QA: Standards	1.329	1.169	1.371	1.587	1.175	1.502	1.468
2013	**2.718**	**2.482**	**4.18**	**2.442**	**2.127**	**3.103**	**2.11**
Customer Satisfaction: Experience							
CS: Overall Experience	2.718	2.482	4.18	2.442	2.127	3.103	2.11
CS: Problem Free Stay	2.718	2.482	4.18	2.442	2.127	3.103	2.11
Quality: Quality Assurance							
QA: Cleanliness	1.252	1.145	1.436	1.2	1.294	1.451	1.218
QA: Condition	1.388	1.334	1.733	1.204	1.505	1.498	1.383
QA: Standards	1.219	1.231	1.474	1.133	1.23	1.233	1.234
2014	**3.124**	**2.472**	**4.194**	**2.347**	**2.416**	**3.656**	**2.453**
Customer Satisfaction: Experience							
CS: Overall Experience	3.124	2.472	4.194	2.347	2.416	3.656	2.453
CS: Problem Free Stay	3.124	2.472	4.194	2.347	2.416	3.656	2.453
Quality: Quality Assurance							
QA: Cleanliness	1.267	1.247	1.854	1.127	1.473	1.269	1.245
QA: Condition	1.38	1.532	2.008	1.259	1.731	1.308	1.302
QA: Standards	1.226	1.284	1.259	1.24	1.316	1.253	1.197
2015	**3.454**	**3.217**	**4.991**	**2.402**	**2.644**	**4.096**	**2.673**
Customer Satisfaction: Experience							
CS: Overall Experience	3.454	3.217	4.991	2.402	2.644	4.096	2.673
CS: Problem Free Stay	3.454	3.217	4.991	2.402	2.644	4.096	2.673
Quality: Quality Assurance							
QA: Cleanliness	1.272	1.31	1.278	1.117	1.225	1.425	1.288
QA: Condition	1.433	1.63	1.433	1.355	1.557	1.432	1.399
QA: Standards	1.257	1.322	1.258	1.264	1.32	1.265	1.258
Maximum Value for ALL Brand Groups	**3.454**	**3.217**	**4.991**	**2.442**	**2.644**	**4.096**	**2.673**

IV.4 Analysis: Structural Model Results Hypothesis

The PLS Model results were validated with all the criteria suggested by J. Hair et al. (2012b), and each aspect of the model was validated. The following is the analysis for each hypothesis and is followed by managerial implications and actions in the Discussion section.

IV.4.1.1 H1: Increased Quality Assurance scores will increase Customer Satisfaction: Experience scores

The analysis used the following dependent variables: Quality Assurance, Quality Assurance Cleanliness, Quality Assurance Standards, and Quality Assurance Condition as independent variables measured against Formative Customer Satisfaction variables of Overall Experience and Value for Price Paid.

IV.4.1.2 H1: Analysis Method

Partial Least Squares–Structural Equation Modeling (PLS-SEM or PLS) was used to analyze how Quality Assurance relates to Customer Satisfaction. The following are modeled with intent to explain the relationship with each of the hypothesis variables:

- **Delineation:** Six brand groups over 10 years plus Complete Data Set & J.D. Power Ordinal
- **Software Tool(s):** Smart PLS – PLS-SEM
- **Replacement of Missing Variables:** Pairwise Replacement
- **Iterations:** 1,000

IV.4.1.3 H1: Analysis Outcome

Quality assurance serves as the foundation and precedes customer satisfaction for a host of aspects of ensuring that the product is meeting the customer expectations, in addition to the mechanism the franchisor leverages to ensure the franchisee is delivering on the brand standards (Oliver, 1977). As discussed, quality, therefore, influences the experience and directly affects the attitude and intent. Section 2.7.5 discusses the customer expectations as a component of the Expectation Confirmation Theory, of which quality assurance is at the core of measuring how the customers experience the hotel. Satisfaction is achieved when the product or service matches the expectation (Oliver, 1980).

In analyzing the data, the Adjusted R^2 for 2006 to 2010 values were around the (Adjusted R^2 = 0.10 to 0.30) range (Table 33). However, from 2011 to 2015, the explained variance shifted to (Adjusted R^2 = 0.30 to 0.60) (Table 33). Additionally, the T-values for quality's relationship with Customer Satisfaction: Experience are significant for all brand groups and years with the exception of two anomalies in 2006 and 2009. Overall, there is a moderate to strong relationship

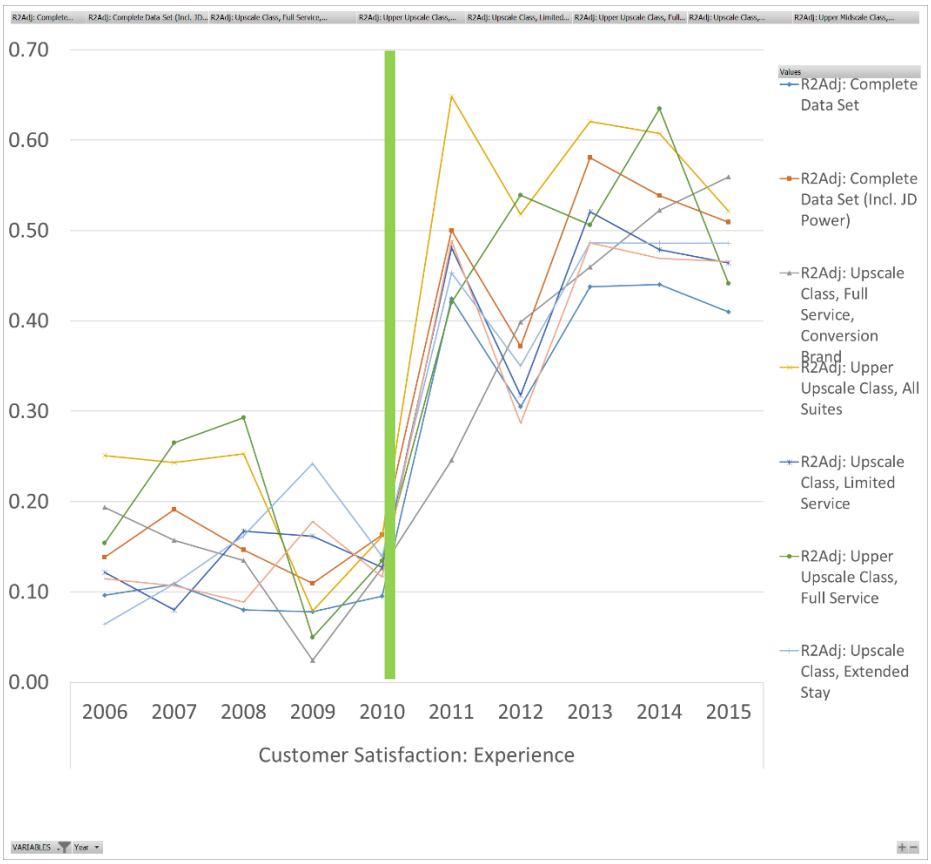
between Quality Assurance to Customer Satisfaction: Experience. According to the data, quality assurance measurements conducted by the auditors are concluded to predict the customer satisfaction and experience.

Table 33 Adjusted R^2 for Quality: Quality Assurance to Customer Satisfaction: Experience

Brand Group	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Customer Satisfaction: Experience										
R2Adj: Complete Data Set	0.096	0.109	0.080	0.078	0.095	0.424	0.305	0.438	0.440	0.410
R2Adj: Complete Data Set (Incl. JD Power)	0.138	0.191	0.146	0.109	0.163	0.500	0.372	0.581	0.538	0.509
R2Adj: Upscale Class, Full Service, Conversion Brand	0.194	0.157	0.135	0.024	0.127	0.246	0.399	0.460	0.522	0.559
R2Adj: Upper Upscale Class, All Suite	0.251	0.243	0.253	0.079	0.162	0.648	0.518	0.621	0.607	0.521
R2Adj: Upscale Class, Limited Service	0.122	0.080	0.167	0.161	0.127	0.481	0.318	0.521	0.479	0.464
R2Adj: Upper Upscale Class, Full Service	0.154	0.265	0.293	0.050	0.134	0.420	0.539	0.506	0.635	0.441
R2Adj: Upscale Class, Extended Stay	0.064	0.109	0.162	0.242	0.139	0.453	0.350	0.487	0.486	0.486
R2Adj: Upper Midscale Class, Limited Service	0.115	0.107	0.089	0.178	0.117	0.488	0.287	0.486	0.469	0.466

During the 2010–2011 period, the organization studied in this paper made a significant change in the Quality Assurance process. For the years prior to 2010, the organization measured hotels' quality assurance visits against a predefined and communicated data point (e.g., for 2008, all hotels had to achieve a QA score of 85 percent). After 2010, the organization shifted to rankings and percentiles (e.g., the hotels' scores were compared to all other hotels, and the hotels were ranked; all locations below the fifth percentile threshold automatically failed). The data suggest that quality assurance visits are better at predicting Customer Satisfaction: Experience when hotels are measured in percentiles. The Adjusted R^2 values' shift from 2011 through 2015 was an abnormality that surfaced as both a relevant potential outcome of a business process changes and actionable management implication.

Figure 20 Adjusted R^2 for Quality: Quality Assurance to Customer Satisfaction: Experience



In reviewing the significance values for the relationship between Quality: Quality Assurance to Customer Satisfaction: Experience, the data support that each of the constructs and measurements is strong for all of the brand groups. While the sample size is large in nature, the data also support that the significance exists.

Table 34 Significance: Bootstrapping T-Values for Quality: Quality Assurance to Customer Satisfaction: Experience

BOOTSTRAPPING (T-Values)	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Quality: Quality Assurance -> Customer Satisfaction: Experience										
Complete Data Set	13.448	14.225	12.727	13.595	16.659	43.36	29.258	50.539	46.928	53.609
Complete Data Set (Incl. JD Power)	11.904	13.426	12.484	13.283	15.297	41.357	27.863	50.687	42.009	49.284
Upscale Class, Full Service, Conversion Brand	5.115	6.281	5.652	1.389	3.838	5.399	11.32	15.594	14.27	25.545
Upper Upscale Class, All Suite	8.051	8.552	7.432	3.816	6.845	39.274	19.614	30.392	29.694	17.668
Upscale Class, Limited Service	5.648	2.851	9.827	9.434	8.336	28.231	16.085	36.224	27.544	17.390
Upper Upscale Class, Full Service	4.956	11.071	9.426	3.669	6.623	12.337	13.616	7.202	23.448	14.566
Upscale Class, Extended Stay	1.754	5.432	7.121	9.395	6.906	18.252	12.118	23.91	21.055	18.94

Upper Midscale Class, Limited Service	11.681	10.497	7.210	11.556	12.589	42.228	25.271	53.055	35.774	40.633

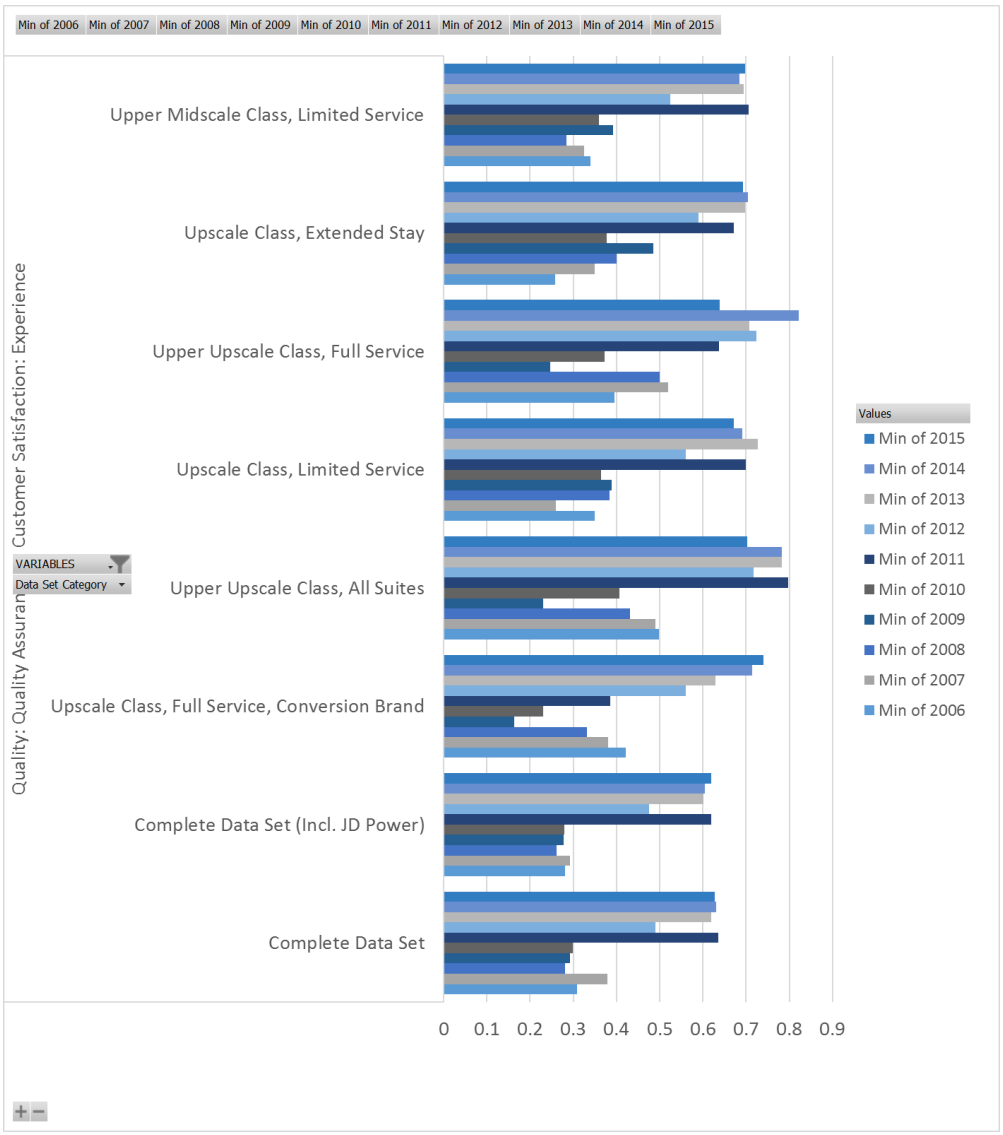
The path coefficients follow similar behavior as the R^2 values shifted from (beta = 0.164 to 0.519) between the years of 2006 and 2010—to around (beta = 0.385 to 0.822) from 2011 to 2015. This is considered not only a shift from moderate to strong influence but in context of coefficients—for every 1-point change in the exogenous construct, results in standardized change by the path coefficient value of the endogenous construct.

IMPLICATION: For every 1-point change in the Quality Assurance scores, this results in (*beta* = 0.50 to 0.80) point change in Customer Satisfaction: Experience.

Table 35 Path Coefficient for Quality: Quality Assurance to Customer Satisfaction: Experience

Brand Group	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**
Quality: Quality Assurance -> Customer Satisfaction: Experience										
Complete Data Set	0.309	0.379	0.281	0.292	0.299	0.635	0.491	0.620	0.630	0.628
Complete Data Set (Incl. JD Power)	0.281	0.292	0.262	0.278	0.279	0.620	0.475	0.601	0.604	0.619
Upscale Class, Full Service, Conversion Brand	0.421	0.380	0.332	0.164	0.231	0.385	0.561	0.629	0.714	0.740
Upper Upscale Class, All Suite	0.499	0.491	0.431	0.230	0.407	0.798	0.717	0.783	0.783	0.703
Upscale Class, Limited Service	0.349	0.260	0.384	0.389	0.365	0.699	0.561	0.727	0.691	0.671
Upper Upscale Class, Full Service	0.396	0.519	0.500	0.247	0.372	0.638	0.724	0.708	0.822	0.639
Upscale Class, Extended Stay	0.258	0.349	0.400	0.485	0.378	0.671	0.590	0.698	0.704	0.693
Upper Midscale Class, Limited Service	0.339	0.325	0.285	0.392	0.360	0.706	0.525	0.694	0.685	0.698

Figure 21 Path Coefficient for Quality: Quality Assurance to Customer Satisfaction: Experience



IV.4.2 *H2: The interaction effect between Brand Signal and Quality Assurance will increase Customer Satisfaction: Experience*

The analysis used the following dependent variables: Quality Assurance Cleanliness, Quality Assurance Standards, and Quality Assurance Condition as independent variables measured against Formative Customer Satisfaction variables of Customer Satisfaction: Overall Experience and Value for Price Paid moderated by Brand Signaling measured by J.D. Power.

Because J.D. Power is rank order with “1” being the best, the variables are an inverse relationship.

IV.4.2.1 H2: Analysis Method

Partial Least Squares–Structural Equation Modeling (PLS-SEM or PLS) was used for the interaction effect of brand signaling on quality assurance. The following are modeled with intent to explain the relationship with each of the hypothesis variables:

- **Delineation:** Six brand groups over 10 years plus Complete Data Set & J.D. Power Ordinal
- **Software Tool(s):** Smart PLS – PLS-SEM
- **Replacement of Missing Variables:** Pairwise Replacement
- **Iterations:** 1,000

IV.4.2.2 H2: Analysis Outcome

For this analysis, the R^2 change between the PLS model with the variable of J.D. Power rank (ordinal value) was compared to the R^2 change without the J.D. Power rank variable to better understand the interaction effect on the endogenous construct of Customer Satisfaction: Experience. For this construct, brand signal is analyzed. The importance of consistent experiences and a franchising platform enables greater performance through a distribution engine that embraces the concept of branding. For the analysis, brand signal is simply stating that consumer awareness of the brand results in greater Customer Satisfaction: Experience as the expectation is set with the customer regarding the attributes of the brand and what to expect. Brand signaling is the surrogate for the perception of quality and drives brand equity (loyalty).

Δ Change in Adjusted R^2

In analyzing the data, the range of Δ Change in (Adj. R^2 = -0.001 up to 0.143, $p < 0.001$ to 0.05*). The explained variance changes up to 14 percentage points when introducing the J.D. Power ranking (Table 36).

Table 36 R^2 Change with Interacting Effect of Brand Signaling on Customer Satisfaction: Experience

Brand Group	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Δ Customer Satisfaction: Experience JD Power										
R2Adj: Complete Data Set (Incl. JD Power)	-0.001	0.000	0.042	0.082	0.066	0.031	0.068	0.076	0.067	0.143

Figure 22 R^2 Change with Interacting Effect of Brand Signaling on Customer Satisfaction: Experience

Significance: T-Values (Bootstrapping)

In reviewing the significance values for the Interaction Effect of Brand Signaling on Customer Satisfaction: Experience, the data support that each of the constructs and measurements is strong for all of the brand groups. The sample size for this group is large in nature; the data also support that the significance exists.

Table 37 Significance: Bootstrapping T-Values for Interaction Effect of Brand Signaling on Customer Satisfaction: Experience

BOOTSTRAPPING (T-Values)	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Customer Recommendation -> Market Share (RPI)										
Complete Data Set (Incl. JD Power)	**7.744**	**8.275**	**10.586**	1.808	**10.298**	**10.085**	**6.151**	**10.575**	**10.170**	**12.851**
Upscale Class, Full Service, Conversion Brand	**2.863**	**3.837**	**3.515**	0.086	**3.889**	**5.467**	**3.896**	**6.1818**	**6.802**	**7.594**
Upper Upscale Class, All Suite	**3.641**	**3.197**	**3.011**	0.840	**2.897**	**3.436**	**2.256**	**3.242**	**2.749**	**4.489**
Upscale Class, Limited Service	**8.468**	**2.700**	**4.092**	**2.725**	**4.632**	**4.709**	1.903	**4.257**	**6.197**	**5.374**
Upper Upscale Class, Full Service	**3.823**	**4.404**	**4.216**	**0.486**	**4.065**	**3.911**	**3.999**	**4.250**	**3.178**	**3.752**
Upscale Class, Extended Stay	**2.212**	**2.294**	1.438	0.793	1.156	1.751	0.190	**2.275**	**2.398**	**3.441**
Upper Midscale Class, Limited Service	**8.984**	**3.204**	**3.600**	**0.271**	**2.320**	1.901	1.286	1.761	1.931	**3.969**

Path Coefficients

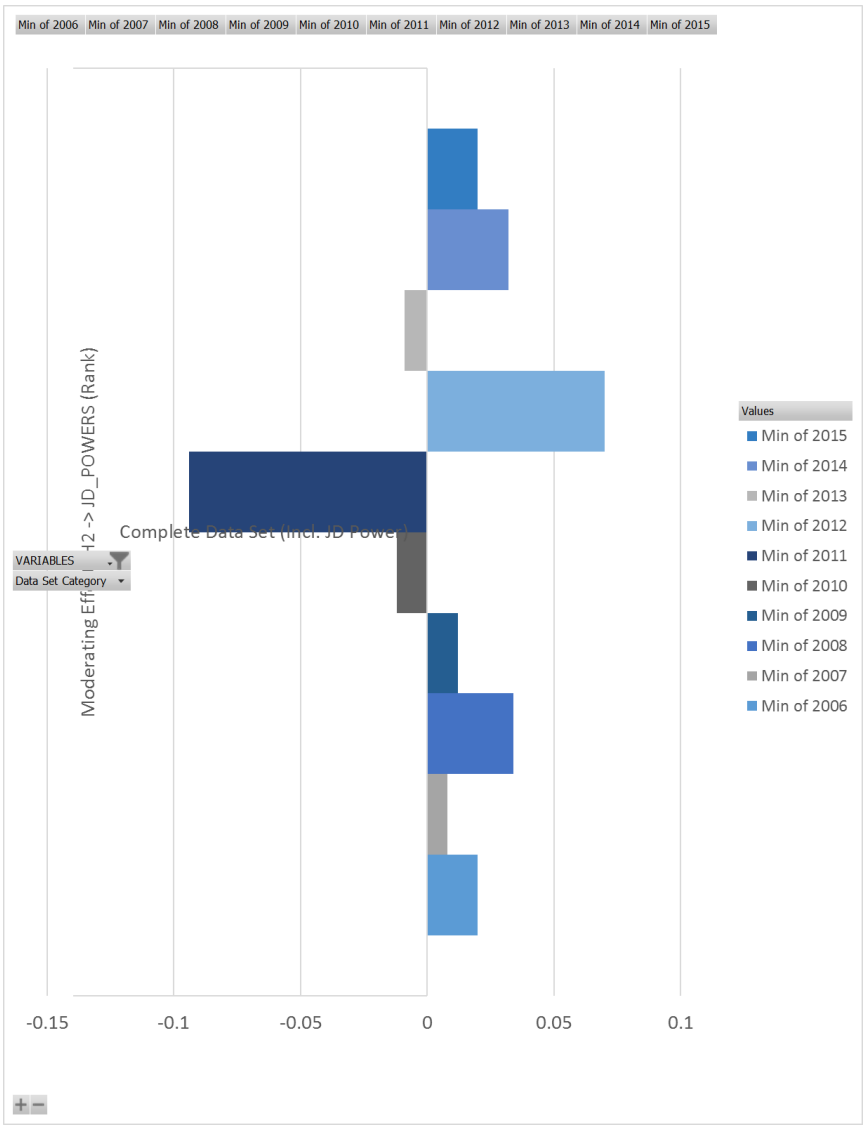
The path coefficients are considered inconsistent or weak from the analysis. For these data points, the path coefficient for Brand Signaling demonstrates inconsistent impact on the endogenous construct of Customer Satisfaction: Experience. Future research and depth are needed to draw full conclusions from the path coefficients.

IMPLICATION: For every 1-point change in the Brand Signaling (change in the ordinal J.D. Power rank of the brand), this results in (*beta* = -0.094 to 0.032) point change in Customer Satisfaction: Experience.

Table 38 Path Coefficient for Bootstrapping T-Values for Interaction Effect of Brand Signaling on Customer Satisfaction: Experience

Brand Group	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Moderating Effect: H2 -> JD_POWER (Rank)	**0.02**	**0.008**	**0.034**	**0.012**	**-0.012**	**-0.094**	**0.07**	**-0.009**	**0.032**	**0.02**
Complete Data Set (Incl. JD Power)	0.02	0.008	0.034	0.012	-0.012	-0.094	0.07	-0.009	0.032	0.02

Figure 23 Path Coefficient for Interaction Effect of Brand Signaling on Customer Satisfaction: Experience



IV.4.3 *H3: The interaction effect between Guest Loyalty Mix of Business and Quality will increase Customer Satisfaction: Experience*

The analysis used the following dependent variables: Quality Assurance Cleanliness, Quality Assurance Standards, and Quality Assurance Condition as independent variables measured against Formative Customer Satisfaction: Experience. Within Customer Satisfaction: Experience, this included variables of Helpfulness of Staff, Intent to Return, Value for Price Paid, and Recommend Hotel moderated by Guest Loyalty Mix of Business (known as loyalty contribution of guests).

Analysis Method: Partial Least Squares – Structural Equation Modeling

IV.4.3.1 H3: Analysis Method

Partial Least Squares – Structural Equation Modeling (PLS-SEM or PLS) was used for the Interaction Effect of Quality Assurance on Guest Loyalty Mix of Business. The following is modeled with intent to explain the relationship with each of the hypothesis variables:

- **Delineation:** Six brand groups over 10years plus Complete Data Set & J.D. Power Ordinal
- **Software Tool(s):** Smart PLS – PLS-SEM
- **Replacement of Missing Variables:** Pairwise Replacement
- **Iterations:** 1,000

IV.4.3.2 H3: Analysis Outcome

For this analysis, the R^2 change between the PLS model with the Loyalty Mix of Business (contribution) variable was compared to the R^2 change without the Loyalty Mix of Business variable to better understand the interaction effect on the endogenous construct of

Customer Satisfaction: Experience. For this construct, loyalty is analyzed. Branding for the franchisee brings confidence in the hotel alongside awareness and recognition. There is little dispute that brands drive higher premiums. Therefore, loyalty is important in franchising to capture the customer.

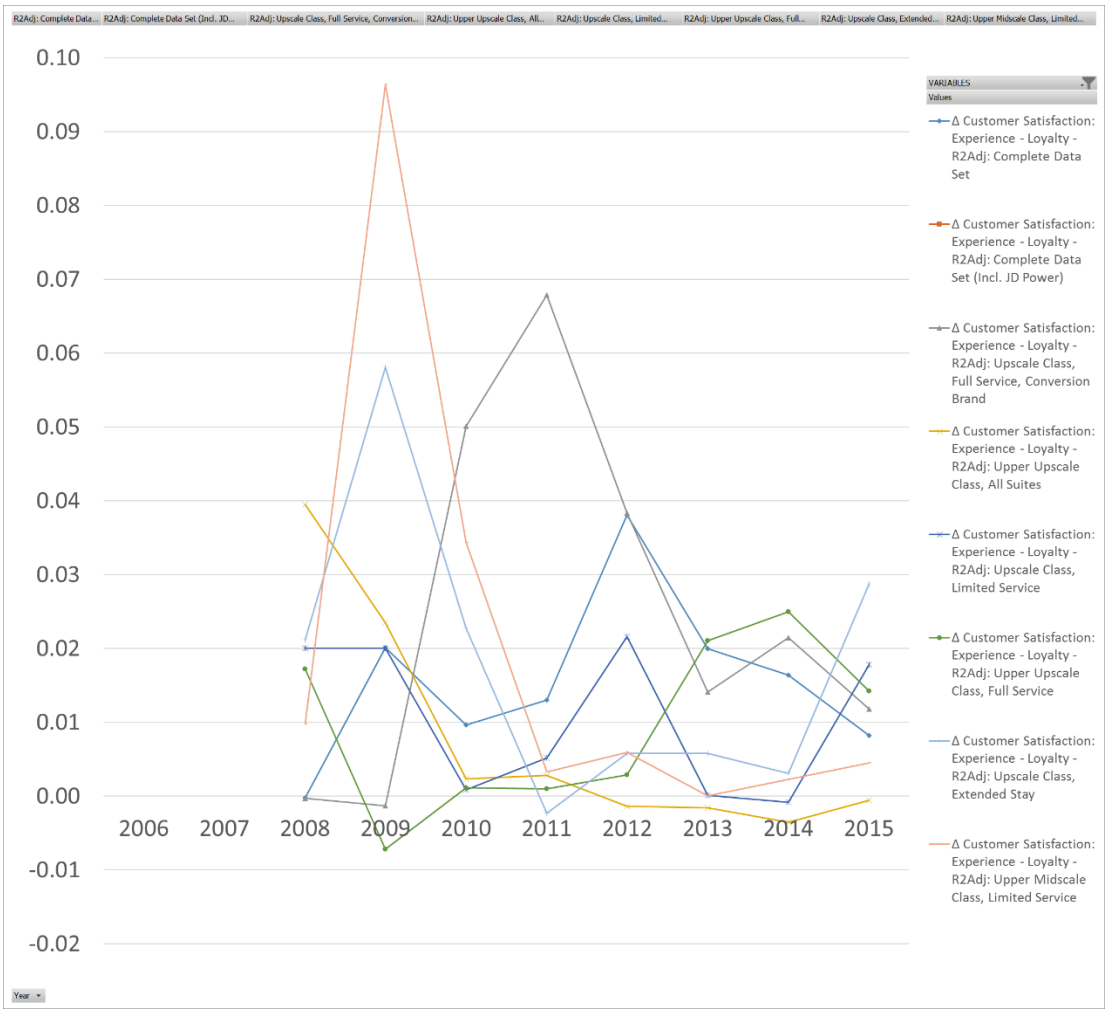
Δ Change in Adjusted R^2

In analyzing the data, the Δ Change in Adjusted R^2 values for 2008 to 2015 data ranged from (Adj. R^2 = 0.007 up to 0.100, $p < 0.001$ to 0.05*) (Table 39). The explained variance change ranged up to 10 percentage points when the hotel had a greater number of loyalty guests staying at the hotel (increased mix of business).

Table 39 R^2 Change with Interaction Effect of Quality Assurance on Guest Loyalty Mix of Business (H3)

Brand Group	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Δ Customer Satisfaction: Experience - Loyalty										
R2Adj: Complete Data Set			0.000	0.020	0.010	0.013	0.038	0.020	0.016	0.008
R2Adj: Upscale Class, Full Service, Conversion Brand			0.000	-0.001	0.050	0.068	0.038	0.014	0.021	0.012
R2Adj: Upper Upscale Class, All Suite			0.040	0.023	0.002	0.003	-0.001	-0.002	-0.004	-0.001
R2Adj: Upscale Class, Limited Service	NO DATA OBTAINED		0.020	0.020	0.001	0.005	0.022	0.000	-0.001	0.018
R2Adj: Upper Upscale Class, Full Service			0.017	-0.007	0.001	0.001	0.003	0.021	0.025	0.014
R2Adj: Upscale Class, Extended Stay			0.021	0.058	0.023	-0.002	0.006	0.006	0.003	0.029
R2Adj: Upper Midscale Class, Limited Service			0.010	0.096	0.034	0.003	0.006	0.000	0.002	0.005

Figure 24 R^2 Change with Interaction Effect of Quality Assurance on Guest Loyalty Mix of Business (H3)



Significance: T-Values (Bootstrapping)

In review, the T-values for quality's relationship with the Interaction Effect of Quality on Guest Loyalty Mix of Business are significant with a single anomaly year for the Upscale Class, Limited Service brand group in 2007. The strength of the other significance variables supports that this is no cause for concern with the interpretation of the R^2 values.

Table 40 Significance: Bootstrapping T-Values for Interaction Effect of Quality Assurance on Guest Loyalty Mix of Business (H3)

BOOTSTRAPPING (T-Values)	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Moderating Effect: H2 -> Customer Satisfaction: Experience_Reflective										
Complete Data Set	308.131	26.682	550.014	161.083	868.655	844.597	702.063	1019.531	412.403	1221.276
Complete Data Set (Incl. JD Power)	308.605	25.451	210.843	109.94	869.495	862.189	681.509	997.832	410.991	1219.519
Upscale Class, Full Service, Conversion Brand	142.064	101.073	152.661	30.401	110.988	237.246	172.602	276.263	61.717	285.964
Upper Upscale Class, All Suites	31.264	186.755	202.474	49.05	300.942	296.544	266.169	324.91	290.54	349.629
Upscale Class, Limited Service	137.624	1.393*	168.603	143.619	195.919	190.826	200.996	229.858	40.984	235.665
Upper Upscale Class, Full Service	120.149	131.55	155.169	40.536	224.576	199.267	206.367	223.903	282.07	327.897
Upscale Class, Extended Stay	141.386	29.828	137.104	142.236	218.966	261.489	230.465	247.075	330.705	334.26
Upper Midscale Class, Limited Service	395.551	58.426	301.961	245.711	617.145	497.907	342.601	557.555	323.593	703.729

*Variable not significant.

Path Coefficients

The path coefficients are considered inconsistent or weak from the analysis. For these data points, the path coefficient for Guest Loyalty Mix of Business demonstrates inconsistent impact on the endogenous construct of Customer Satisfaction: Experience. Future research and depth are needed to draw full conclusions from the path coefficients as these variables are nearly 20 percentage points in difference depending on year and brand group. Guest loyalty is still considered an extremely important component of hotel performance. This analysis requires further depth to fully extrapolate the extensiveness of the role of loyalty.

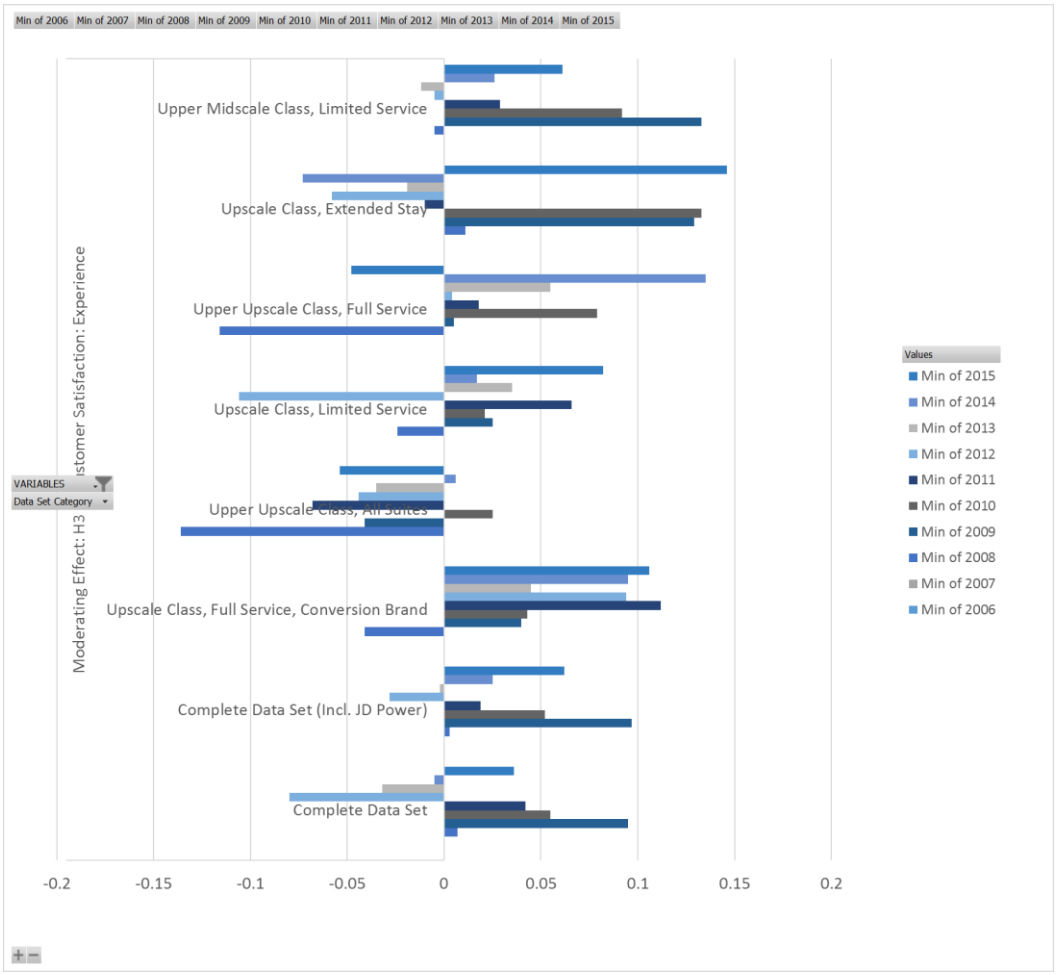
IMPLICATION: For every 1-point change in the Guest Loyalty Mix of Business (change in the percentage of guest loyalty members' contributions to the business), this results in (*beta* = -0.136 to 0.146) point change in Customer Satisfaction: Experience.

Table 41 Path Coefficient for Interaction Effect of Quality Assurance on Guest Loyalty Mix of Business (H3)

Brand Group	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Moderating Effect: H3 -> Customer Satisfaction: Experience										
Complete Data Set			0.007	0.095	0.055	0.042	-0.08	-0.032	-0.005	0.036
Complete Data Set (Incl. JD Power)			0.003	0.097	0.052	0.019	-0.028	-0.002	0.025	0.062
Upscale Class, Full Service, Conversion Brand			-0.041	0.04	0.043	0.112	0.094	0.045	0.095	0.106
Upper Upscale Class, All Suites			-0.136	-0.041	0.025	-0.068	-0.044	-0.035	-0.006	-0.054
Upscale Class, Limited Service			-0.024	0.025	0.021	0.066	-0.106	0.035	0.017	0.082
Upper Upscale Class, Full Service			-0.116	0.005	0.079	0.018	0.004	0.055	0.135	-0.048
Upscale Class, Extended Stay			0.011	0.129	0.133	-0.010	0.058	-0.019	-0.073	0.146
Upper Midscale Class, Limited Service			-0.005	0.133	0.092	0.029	-0.005	-0.012	-0.026	0.061

NOT DATA OBTAINED

Figure 25 Path Coefficient for Interaction Effect of Quality Assurance on Guest Loyalty Mix of Business (H3)


Min of 2006
Min of 2007
Min of 2008
Min of 2009
Min of 2010
Min of 2011
Min of 2012
Min of 2013
Min of 2014
Min of 2015
Upper Midscale Class, Limited Service
Upscale Class, Extended Stay
Upper Upscale Class, Full Service
Upscale Class, Limited Service
Upper Upscale Class, All Suites
Upscale Class, Full Service, Conversion Brand
Complete Data Set (Incl. JD Power)
Complete Data Set
Moderating Effect: H3 Customer Satisfaction: Experience
VARIABLES
Data Set Category
-0.2
-0.15
-0.1
-0.05
0
0.05
0.1
0.15
0.2
Values
Min of 2015
Min of 2014
Min of 2013
Min of 2012
Min of 2011
Min of 2010
Min of 2009
Min of 2008
Min of 2007
Min of 2006

IV.4.4 *H4A: Increased Customer Satisfaction: Experience will result in increased Customer Recommendation.*

The analysis used Formative Customer Satisfaction variables of Overall Experience and Value for Price Paid measured against Reflective Customer Satisfaction variables of Helpfulness of the Staff, Intent to Return to Property, Value for Price Paid, and Recommend Hotel.

IV.4.4.1 H4A: Analysis Method

Partial Least Squares–Structural Equation Modeling (PLS-SEM or PLS) was used to analyze how Formative Customer Satisfaction: Experience drives Reflective Customer Recommendation. The following is modeled with intent to explain the relationship with each of the hypothesis variables:

- **Delineation:** Six brand groups over 10 years plus Complete Data Set & J.D. Power Ordinal
- **Software Tool(s):** Smart PLS – PLS-SEM
- **Replacement of Missing Variables:** Pairwise Replacement
- **Iterations:** 1,000

IV.4.4.2 H4A: Analysis Outcome

Customer satisfaction is evaluated by the customer when they experience the product or service. As clarified by (Oliver, 1977), the confirmation of the experience is essentially the midpoint of the confirmation-disconfirmation spectrum—not unfavorable but not favorable. Within this process of confirmation is where the customer forms the intent for post-purchase or intent to repurchase. Customer recommendation is a function of this byproduct and the components of the Customer Satisfaction: Experience, including Helpfulness of the Staff, Intent to Return, Value for Price Paid, and Recommend Hotel (all influence this decision continuum). The manner in which the customer determines they have achieved satisfaction with the

experience determines the customer's intention for recommendation—and how the questions are answered in the survey.

Adjusted R^2

In analyzing the data, the (Adjusted R^2 = 0.677 to 0.961, $p < 0.001$ to 0.50*) support the strong relationship between the Customer Satisfaction: Experience to the Customer Recommendation constructs (Table 42).

Table 42 Adjusted R^2 for Customer Satisfaction: Experience to Customer Recommendation

Brand Group	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Customer Recommendation										
R2Adj: Complete Data Set	0.932	0.906	0.917	0.826	0.943	0.941	0.936	0.948	0.942	0.955
R2Adj: Complete Data Set (Incl. JD Power)	0.933	0.903	0.904	0.823	0.943	0.941	0.936	0.947	0.941	0.955
R2Adj: Upscale Class, Full Service, Conversion Brand	0.933	0.890	0.915	0.677	0.920	0.939	0.932	0.938	0.910	0.947
R2Adj: Upper Upscale Class, All Suites	0.881	0.934	0.937	0.758	0.949	0.949	0.950	0.961	0.957	0.960
R2Adj: Upscale Class, Limited Service	0.900	0.842	0.877	0.867	0.903	0.893	0.886	0.912	0.858	0.912
R2Adj: Upper Upscale Class, Full Service	0.892	0.892	0.911	0.730	0.928	0.925	0.926	0.929	0.939	0.943
R2Adj: Upscale Class, Extended Stay	0.910	0.904	0.896	0.910	0.925	0.930	0.930	0.931	0.943	0.951
R2Adj: Upper Midscale Class, Limited Service	0.916	0.880	0.897	0.904	0.939	0.928	0.915	0.930	0.926	0.942

**Decrease in 2009 related to economic conditions.*

Figure 26 Adjusted R^2 for Customer Satisfaction: Experience to Customer Recommendation

Significance: T-Values (Bootstrapping)

In reviewing the significance values for the relationship of how Formative Customer Satisfaction: Experience drives Reflective Customer Recommendation, the data support that each of the constructs and measurements is strong for all of the brand groups. The sample size for this group is large in nature; the data also support that the significance exists.

Table 43 Significance: Formative Customer Satisfaction: Experience Drives Reflective Customer Recommendation (H4A)

BOOTSTRAPPING (T-Values)	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Customer Satisfaction: Experience -> Customer Recommendation										
Complete Data Set	308.131	26.682	550.014	161.083	868.655	844.597	702.063	1019.531	412.403	1221.276
Complete Data Set (Incl. JD Power)	308.605	25.451	210.843	109.94	869.495	862.189	681.509	997.832	410.991	1219.519
Upscale Class, Full Service, Conversion Brand	142.064	101.073	152.661	30.401	110.988	237.246	172.602	276.263	61.717	285.964
Upper Upscale Class, All Suites	31.264	186.755	202.474	49.05	300.942	296.544	266.169	324.91	290.54	349.629
Upscale Class, Limited Service	137.624	1.393	168.603	143.619	195.919	190.826	200.996	229.858	40.984	235.665
Upper Upscale Class, Full Service	120.149	131.55	155.169	40.536	224.576	199.267	206.367	223.903	282.07	327.897
Upscale Class, Extended Stay	141.386	29.828	137.104	142.236	218.966	261.489	230.465	247.075	330.705	334.26
Upper Midscale Class, Limited Service	395.551	58.426	301.961	245.711	617.145	497.907	342.601	557.555	323.593	703.729

Path Coefficients

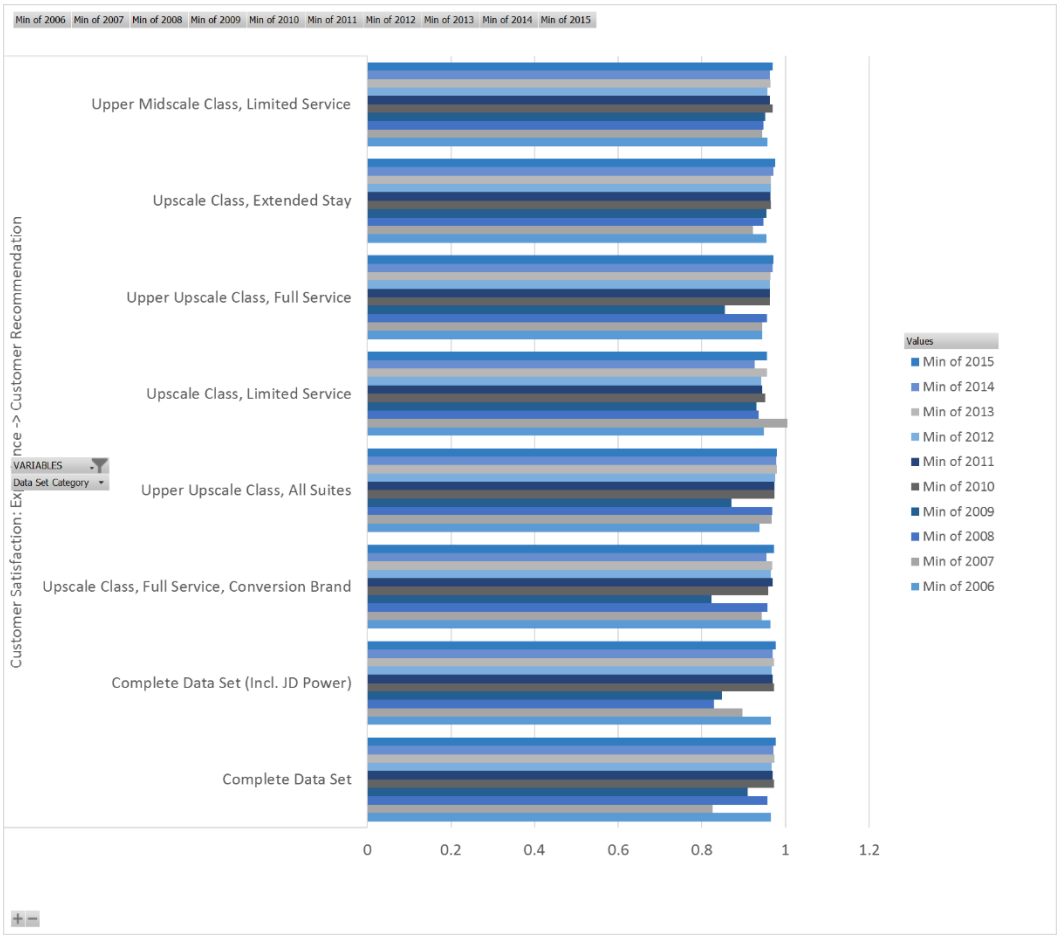
The path coefficients are considered strong from the analysis. For these data points, the path coefficient for Customer Satisfaction: Experience demonstrates consistent impact on the endogenous construct of Customer Recommendation.

IMPLICATION: For every 1-point change in the Customer Satisfaction: Experience, this results in (*beta* =. 823 to 1.004) point change in Customer Recommendation—consistently nearly 1 for 1 causal relationship.

Table 44 Path Coefficient for Formative Customer Satisfaction: Experience Drives Reflective Customer Recommendation (H4A)

Brand Group	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Customer Satisfaction: Experience -> Customer Recommendation										
Complete Data Set	0.965	0.826	0.957	0.909	0.972	0.970	0.967	0.974	0.971	0.977
Complete Data Set (Incl. JD Power)	0.965	0.897	0.828	0.848	0.972	0.970	0.967	0.973	0.970	0.977
Upscale Class, Full Service, Conversion Brand	0.964	0.943	0.957	0.823	0.959	0.969	0.965	0.968	0.954	0.973
Upper Upscale Class, All Suites	0.937	0.967	0.968	0.871	0.974	0.974	0.975	0.980	0.978	0.980
Upscale Class, Limited Service	0.949	1.004	0.936	0.931	0.952	0.945	0.941	0.955	0.927	0.955
Upper Upscale Class, Full Service	0.945	0.945	0.955	0.855	0.963	0.962	0.962	0.964	0.969	0.971
Upscale Class, Extended Stay	0.954	0.922	0.947	0.954	0.966	0.964	0.965	0.965	0.971	0.975
Upper Midscale Class, Limited Service	0.957	0.945	0.947	0.951	0.970	0.963	0.957	0.964	0.962	0.970

Figure 27 Path Coefficient for Formative Customer Satisfaction: Experience Drives Reflective Customer Recommendation (H4A)



IV.4.5 *H4B: Increased Customer Recommendation will result in increased Market Share (RPI).*

This analysis used Customer Recommendation on Market Share (STR Revenue per Available Room Index / RPI) variables of Intent to Return, Property and Recommend Hotel to measure against Market Share (STR Revenue per Available Room Index / RPI) control for STR Occupancy Index.

Table 45 Rationale for STR Occupancy Control Variable

The construct and variables were controlled for STR Occupancy to isolate market share (RPI) to the demand or market conditions. • STR Occupancy Index measures the hotel compared to its competition on occupancy; controlling for this index allows market share (RPI) to fully measure the demand and optimization component of the metric. • Controlling for Occupancy Index allows market share (RPI) to measure how the hotel is able to drive average daily rate against the competition and be optimized against the number of rooms available.

IV.4.6 *H4B: Analysis Method*

Partial Least Squares – Structural Equation Modeling (PLS-SEM or PLS) was used to analyze Customer Recommendation to Market Share (STR Revenue per Available Room Index / RPI). The following is modeled with intent to explain the relationship with each of the hypothesis variables;

- **Delineation:** Six brand groups over 10 years plus Complete Data Set & J.D. Power Ordinal
- **Software Tool(s):** Smart PLS – PLS-SEM
- **Replacement of Missing Variables:** Pairwise Replacement

- **Iterations:** 1,000

IV.4.6.1 H4B: Analysis Outcome

The relationship between Customer Recommendation to Market Share (STR Revenue per Available Room Index / RPI) is practical and theoretical in nature. There is little dispute in the literature that customer recommendation is important to performance. This is also supported by guest loyalty and its relationship. Satisfaction is a combination of meeting the customer expectations for product and service, and customer recommendation is a resulting outcome that impacts the market share achieved by hotels.

Adjusted R^2

In analyzing the data, the (Adjusted R^2 = 0.866 to 0.400, $p < 0.001$ to 0.50*) support the strong relationship between the Customer Recommendation and Market Share (STR Revenue per Available Room Index / RPI) constructs (Table 46).

Table 46 Adjusted R^2 for Customer Recommendation to Market Share (STR Revenue per Available Room Index / RPI)

Brand Group	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Market Share (RPI)										
R2Adj: Complete Data Set	0.725	0.740	0.787	0.589	0.726	0.715	0.548	0.697	0.711	0.713
R2Adj: Complete Data Set (Incl. JD Power)	0.725	0.740	0.787	0.589	0.726	0.715	0.548	0.697	0.711	0.713
R2Adj: Upscale Class, Full Service, Conversion Brand	0.696	0.694	0.750	0.615	0.693	0.710	0.679	0.687	0.697	0.674
R2Adj: Upper Upscale Class, All Suites	0.651	0.581	0.707	0.619	0.713	0.630	0.400	0.628	0.609	0.653
R2Adj: Upscale Class, Limited Service	0.708	0.746	0.866	0.631	0.697	0.676	0.486	0.675	0.737	0.718
R2Adj: Upper Upscale Class, Full Service	0.626	0.628	0.660	0.524	0.539	0.540	0.487	0.525	0.515	0.523
R2Adj: Upscale Class, Extended Stay	0.750	0.804	0.835	0.650	0.683	0.608	0.528	0.691	0.703	0.745
R2Adj: Upper Midscale Class, Limited Service	0.744	0.755	0.782	0.578	0.757	0.745	0.549	0.714	0.721	0.719

Figure 28 Adjusted R^2 for Customer Recommendation to Market Share (STR Revenue per Available Room Index / RPI)

Significance: T-Values (Bootstrapping)

In reviewing the significance values for the relationship between Customer Recommendation and Market Share (STR Revenue per Available Room Index / RPI), the data support that each of the constructs and measurements is strong for all of the brand groups. The sample size for this group is large in nature; the data also support that the significance exists.

Table 47 Significance: Bootstrapping T-Values for Customer Recommendation to Market Share (STR Revenue per Available Room Index / RPI)

BOOTSTRAPPING (T-Values)	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Customer Recommendation -> Market Share (RPI)										
Complete Data Set	7.558	8.855	9.638	1.643	10.516	10.298	5.857	9.748	10.361	12.113
Complete Data Set (Incl. JD Power)	7.744	8.275	10.586	1.808	10.298	10.085	6.151	10.575	10.170	12.851
Upscale Class, Full Service, Conversion Brand	2.863	3.837	3.515	0.086	3.889	5.467	3.896	6.1818	6.802	7.594
Upper Upscale Class, All Suites	3.641	3.197	3.011	0.84	2.897	3.436	2.256	3.242	2.749	4.489
Upscale Class, Limited Service	8.468	2.700	4.092	2.725	4.632	4.709	1.903	4.257	6.197	5.374
Upper Upscale Class, Full Service	3.823	4.404	4.216	0.486	4.065	3.911	3.999	4.250	3.178	3.752
Upscale Class, Extended Stay	2.212	2.294	1.438	0.793	1.156	1.751	0.190	2.275	2.398	3.441
Upper Midscale Class, Limited Service	8.984	3.204	3.600	0.271	2.320	1.901	1.286	1.761	1.931	3.969

Path Coefficients

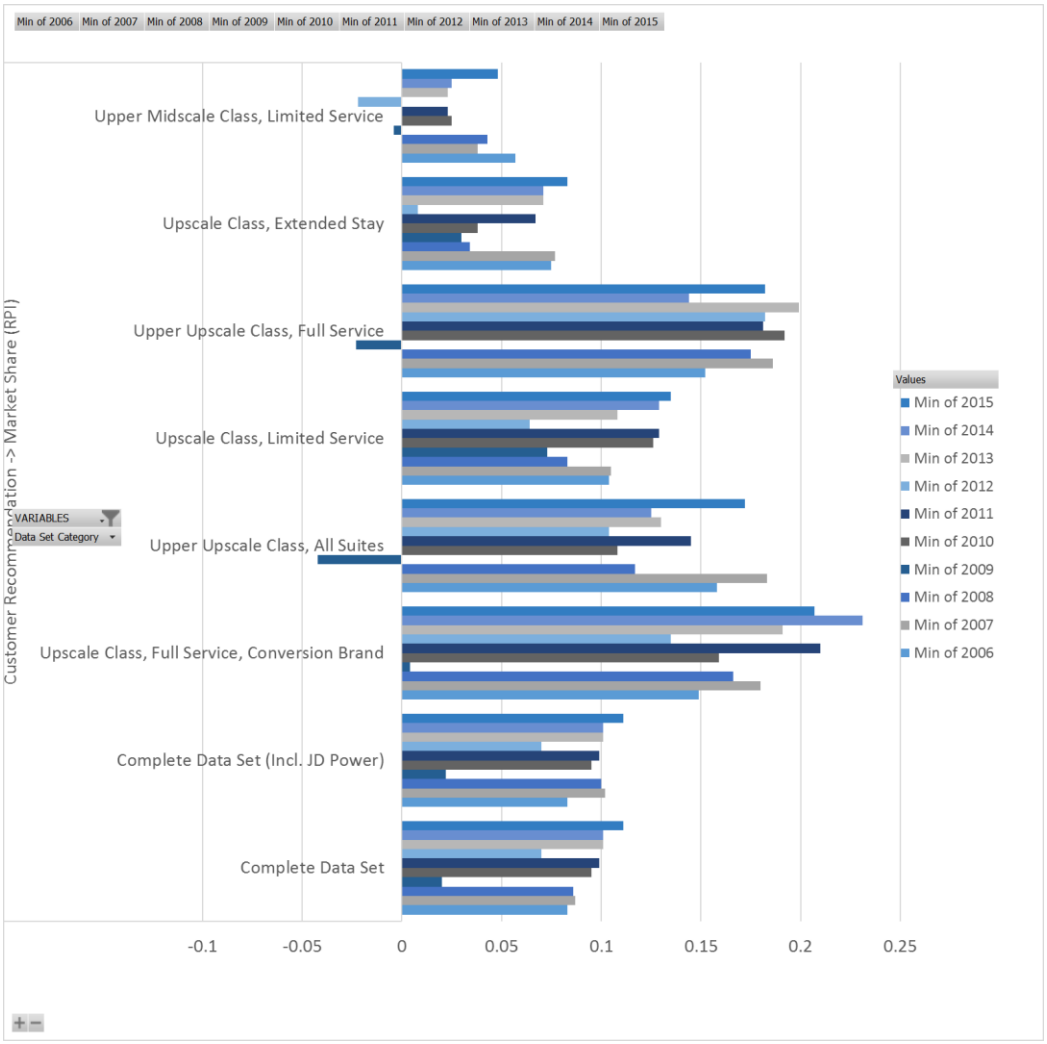
The path coefficients are considered weak to moderate from the analysis according to the literature. And for these data points, the path coefficient for Customer Recommendation demonstrates relatively consistent impact on the endogenous construct of Market Share (STR Revenue per Available Room Index / RPI).

IMPLICATION: For every 1-point change in the Customer Recommendation, this results in (*beta* = -0.042 to .231) point change in Market Share (STR Revenue per Available Room Index / RPI).

Table 48 Path Coefficient for Customer Recommendation to Market Share (STR Revenue per Available Room Index / RPI)

Brand Group	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Customer Recommendation -> Market Share (RPI)										
Complete Data Set	0.083	0.087	0.086	0.020	0.095	0.099	0.070	0.101	0.101	0.111
Complete Data Set (Incl. JD Power)	0.083	0.102	0.100	0.022	0.095	0.099	0.070	0.101	0.101	0.111
Upscale Class, Full Service, Conversion Brand	0.149	0.180	0.166	0.004	0.159	0.210	0.135	0.191	0.231	0.207
Upper Upscale Class, All Suites	0.158	0.183	0.117	-0.042	0.108	0.145	0.104	0.130	0.125	0.172
Upscale Class, Limited Service	0.104	0.105	0.083	0.073	0.126	0.129	0.064	0.108	0.129	0.135
Upper Upscale Class, Full Service	0.152	0.186	0.175	-0.023	0.192	0.181	0.182	0.199	0.144	0.182
Upscale Class, Extended Stay	0.075	0.077	0.034	0.030	0.038	0.067	0.008	0.071	0.071	0.083
Upper Midscale Class, Limited Service	0.057	0.038	0.043	-0.004	0.025	0.023	-0.022	0.023	0.025	0.048

Figure 29 Path Coefficient for Market Share (STR Revenue per Available Room Index / RPI)


Min of 2006
Min of 2007
Min of 2008
Min of 2009
Min of 2010
Min of 2011
Min of 2012
Min of 2013
Min of 2014
Min of 2015
Upper Midscale Class, Limited Service
Upscale Class, Extended Stay
Upper Upscale Class, Full Service
Upscale Class, Limited Service
Upper Upscale Class, All Suites
Upscale Class, Full Service, Conversion Brand
Complete Data Set (Incl. JD Power)
Complete Data Set
Customer Recommendation -> Market Share (RPI)
VARIABLES
Data Set Category
-0.1
-0.05
0
0.05
0.1
0.15
0.2
0.25
Values
Min of 2015
Min of 2014
Min of 2013
Min of 2012
Min of 2011
Min of 2010
Min of 2009
Min of 2008
Min of 2007
Min of 2006

IV.4.7 *H5: Increased Market Share (RPI) will increase Revenue Per Available Room (RevPAR).*

This analysis used Market Share (RPI) to measure against Revenue per Available Room controlling for Average Daily Rate (ADR), Guest Rooms, and STR Asset Age. Through the analysis of this chain of relationships, the outcome determines how the independent variables of Quality Assurance, Customer Satisfaction: Experience, and Customer Recommendation influence Market Share (RPI) and the dependent variable of Revenue per Available Room. This is the first study of its kind in the hospitality and hotel industry to leverage a large data set to analyze both this theory and the relationship between the variables.

Table 49 Rationale for ADR, Guest Rooms, and STR Asset Age

The construct and variables were controlled by ADR, Guest Rooms, and STR Asset Age to ensure that all hotels were similar in nature depending on market and region conditions. • Average Daily Rate (ADR) was used as the variable to allow comparison between cities, since New York City has a much different RevPAR than Des Moines, Iowa, for example. • Guest Rooms controlled for those locations that may have been larger or smaller in nature and may have had some differences as a result of size. • Asset Age was considered because not all locations are created equally when it comes to building and configuration, which needed to be removed from the experience measurement of the equation. In the overall analysis, Guest Rooms and Asset Age had limited influence on the modeling with ADR serving as the most important control variable. Further research is needed around renovated hotels impact on experience and revenue.

IV.4.7.1 H5: Analysis Method

Partial Least Squares–Structural Equation Modeling (PLS-SEM or PLS) was used to analyze how Market Share (STR Revenue per Available Room Index) drives Revenue per Available Room. The following is modeled with intent to explain the relationship with each of the hypothesis variables:

- **Delineation:** Six brand groups over 10 years plus Complete Data Set & J.D. Power Ordinal
- **Software Tool(s):** Smart PLS – PLS-SEM
- **Replacement of Missing Variables:** Pairwise Replacement
- **Iterations:** 1,000

IV.4.7.2 H5: Analysis Outcome

Market Share (RPI) is a measurement that is closely watched by the franchisor but oftentimes is in question with the franchisee on its actual benefit toward driving incremental revenue. While there is limited dispute made about the relationship with Quality Assurance, Customer Satisfaction: Experience, and Customer Recommendation, Market Share (RPI) has broadly been believed to directly tie to revenue, but empirical support has proven to be an enigma. Guest rooms that go unsold are lost revenue forever, so capturing this revenue is important and comes in the form of demand generators, organic sales efforts, distribution, and acquiring customers from the competition. The customer's intent to return and recommend hotel determine how much the hotel captures and retains the market share itself and ultimately how the hotel influences the revenue performance.

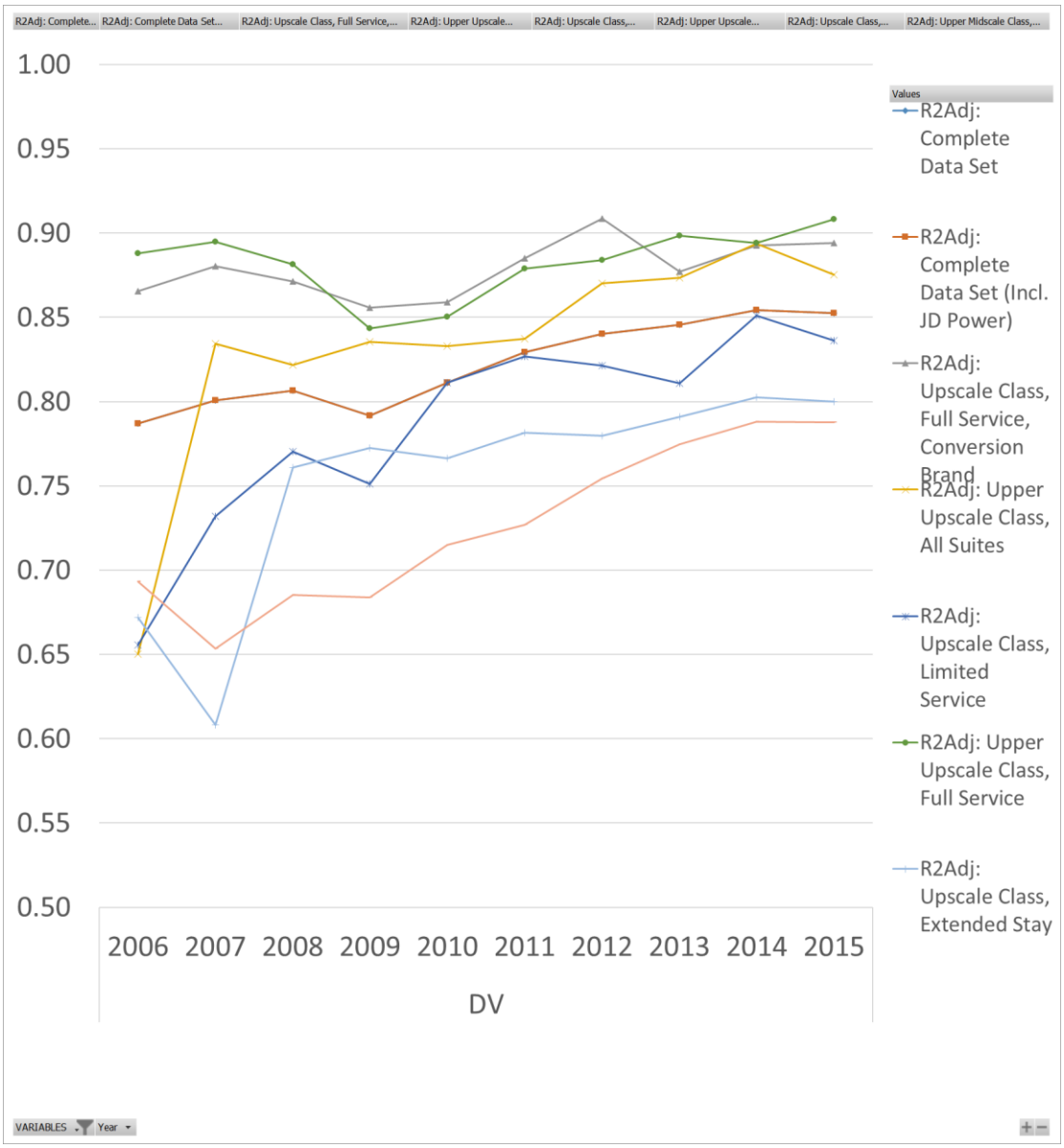
Adjusted R^2

In analyzing the data, the (Adjusted R^2 = 0.608 to 0.909, $p < 0.001$) support the strong relationship between the Market Share (RevPAR Index, RPI) to Dependent Variable: Revenue per Available Room (RevPAR) constructs (Table 50).

Table 50 Adjusted R^2 for Market Share (RevPAR Index, RPI) to Dependent Variable: Revenue per Available Room (RevPAR)

Brand Group	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
DV										
R2Adj: Complete Data Set	0.787	0.801	0.807	0.792	0.811	0.829	0.840	0.846	0.854	0.853
R2Adj: Complete Data Set (Incl. JD Power)	0.787	0.801	0.807	0.792	0.811	0.829	0.840	0.846	0.854	0.853
R2Adj: Upscale Class, Full Service, Conversion Brand	0.866	0.880	0.871	0.856	0.859	0.885	0.909	0.877	0.893	0.894
R2Adj: Upper Upscale Class, All Suites	0.650	0.834	0.822	0.835	0.833	0.837	0.870	0.874	0.894	0.875
R2Adj: Upscale Class, Limited Service	0.655	0.732	0.770	0.751	0.811	0.827	0.821	0.811	0.851	0.836
R2Adj: Upper Upscale Class, Full Service	0.888	0.895	0.881	0.844	0.850	0.879	0.884	0.898	0.894	0.908
R2Adj: Upscale Class, Extended Stay	0.672	0.608	0.761	0.772	0.766	0.781	0.780	0.791	0.802	0.800
R2Adj: Upper Midscale Class, Limited Service	0.693	0.653	0.685	0.684	0.715	0.727	0.754	0.775	0.788	0.788

Figure 30 Adjusted R^2 for Market Share (RevPAR Index, RPI) to Dependent Variable: Revenue per Available Room (RevPAR)



Significance: T-Values (Bootstrapping)

In reviewing the significance values for the relationship between Market Share (RevPAR Index, RPI) and Dependent Variable: Revenue per Available Room (RevPAR), the data support that each of the constructs and measurements is strong for all of the brand groups. The sample size for this group is large in nature; the data also support that the significance exists.

Table 51 Significance: Bootstrapping T-Values for Market Share (RevPAR Index, RPI) to Dependent Variable: Revenue per Available Room (RevPAR)

BOOTSTRAPPING (T-Values)	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Market Share (RPI) -> DV										
Complete Data Set	13.768	14.127	18.072	21.67	14.324	13.35	11.427	11.028	11.482	13.19
Complete Data Set (Incl. JD Power)	13.382	14.113	18.053	21.367	14.91	12.532	11.269	11.194	11.021	12.755
Upscale Class, Full Service, Conversion Brand	4.653	4.505	4.548	5.346	3.768	4.309	5.217	3.972	3.874	4.227
Upper Upscale Class, All Suites	3.423	3.285	4.894	5.801	3.927	3.094	3.211	2.397	2.266	3.474
Upscale Class, Limited Service	5.924	7.306	7.544	7.564	4.652	3.846	3.652	3.289	4.859	4.735
Upper Upscale Class, Full Service	5.016	4.382	4.379	5.966	3.347	2.399	3.526	2.322	2.433	2.006
Upscale Class, Extended Stay	8.534	5.626	9.970	11.177	6.954	5.618	4.289	5.742	6.059	7.401
Upper Midscale Class, Limited Service	9.069	9.199	12.719	17.005	12.375	10.867	9.061	9.779	9.149	10.071

Path Coefficients

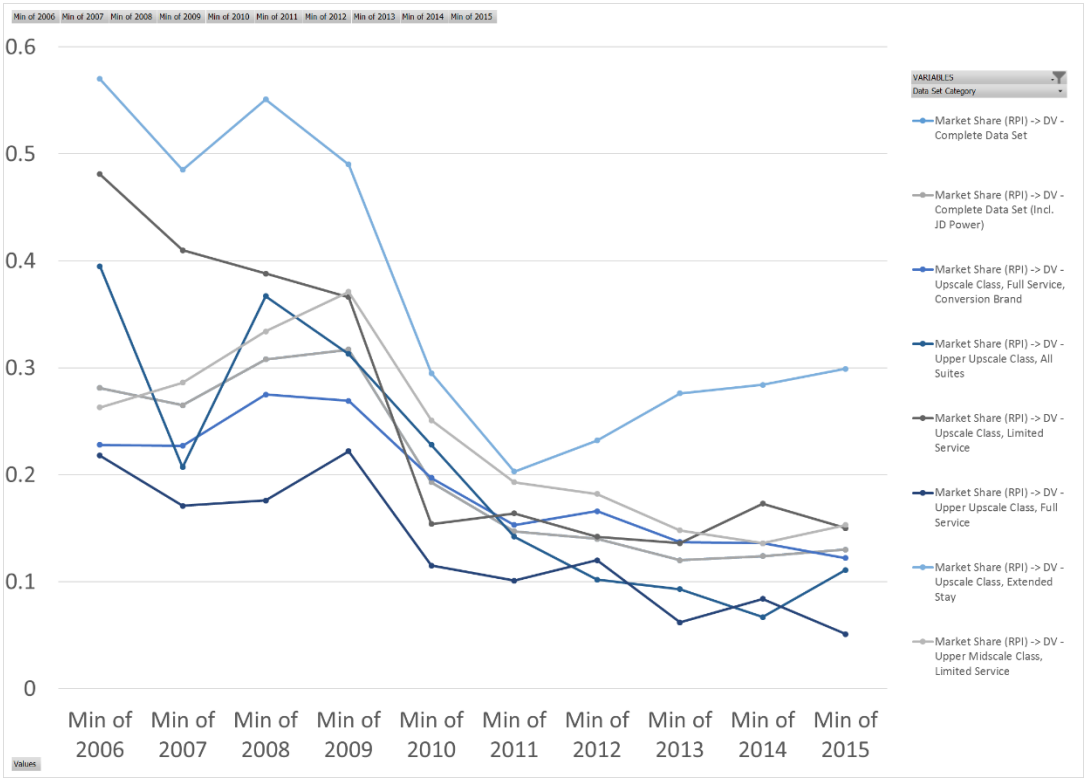
For these data points, the path coefficient for Market Share (STR Revenue per Available Room Index / RPI) demonstrates relatively consistent impact on the endogenous construct of Revenue per Available Room (RevPAR).

IMPLICATION: For every 1-point change in the Market Share (STR Revenue per Available Room Index / RPI), this results in (*beta* = 0.101 to .570) point change in Revenue per Available Room (RevPAR). Notable is that as the year's progress, the impact of RPI on RevPAR decreases.

Table 52 Path Coefficient for Market Share (RevPAR Index, RPI) to Dependent Variable: Revenue per Available Room (RevPAR)

Brand Group	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Market Share (RPI) -> DV										
Complete Data Set	0.281	0.265	0.308	0.317	0.193	0.147	0.140	0.120	0.124	0.130
Complete Data Set (Incl. JD Power)	0.281	0.265	0.308	0.317	0.193	0.147	0.140	0.120	0.124	0.130
Upscale Class, Full Service, Conversion Brand	0.228	0.227	0.275	0.269	0.197	0.153	0.166	0.137	0.136	0.122
Upper Upscale Class, All Suites	0.395	0.207	0.367	0.313	0.228	0.142	0.102	0.093	0.067	0.111
Upscale Class, Limited Service	0.481	0.410	0.388	0.366	0.154	0.164	0.142	0.136	0.173	0.150
Upper Upscale Class, Full Service	0.218	0.171	0.176	0.222	0.115	0.101	0.120	0.062	0.084	0.051
Upscale Class, Extended Stay	0.570	0.485	0.551	0.490	0.295	0.203	0.232	0.276	0.284	0.299
Upper Midscale Class, Limited Service	0.263	0.286	0.334	0.371	0.251	0.193	0.182	0.148	0.136	0.153

Figure 31 Path Coefficient for Market Share (RevPAR Index, RPI) to Dependent Variable: Revenue per Available Room (RevPAR)



V DISCUSSION AND ORGANIZATION IMPLICATIONS

With the analysis, there are significant contributions to both the theory and practice within the realm of quality and customer satisfaction with relationship to the factors that drive experience and performance. The data support the overall statements that Quality Assurance, Customer Satisfaction: Experience, Customer Recommendation, and Market Share (RPI) all have a significant impact on Revenue per Available Room (RevPAR). This study contributes to applying empirical evidence to the Expectation Confirmation Theory (ECT), and the data suggest that each aspect of the customer experience has significant revenue repercussions. For hotels and the hospitality industry, the following contributions to the theory are achieved:

- **Expectations:** Quality Assurance measures hotel delivery and execution, and customer expectations.
- **Disconfirmation:** Customer Satisfaction: Experience survey questions of Overall Experience and Problem Free Stays measure if the expectations are confirmed or disconfirmed.
- **Satisfaction:** Customer Recommendation survey questions of Helpfulness of the Hotel Staff, Intent to Return, Value for Price Paid, and Recommend Hotel measure post-purchase adoption and repurchase—and ultimate satisfaction.
- **Attitude and Intention:** Market Share (RPI) determines if customers are captured and recaptured, or attitude and intention for the future.
- **Distrust:** Franchising and Principal-Agent risks associated with protection of Brand Image and Equity create the undertone for how the brand communicates expectations to the consumer, delivery by the franchisee on those tenants, and the trust or distrust that results.

The brand represents the products and services offered to the customer. Franchise organizations rely heavily on the brand image and equity that reside in the heart and mind of the customer. Brand equity builds on the customer recognition and association that is tied heavily to expectations. Essentially, the value of the brand comes from the perception of quality.

This data support that brand managers should spare no costs to ensure that quality assurance is a priority to protect the tangible and intangible aspects of their brands.

As such, the repercussions on the impact of brand image and equity extend directly to the bottom line of franchisors and franchisees. The data support that when the proper steps are taken to protect the brand, unleashing the potential with these aspects of the business can drive incremental performance.

V.1 Contributions of Quality on Customer Satisfaction and Guest Experience

Quality is the surrogate to determining the customer expectations. The Franchisor Quality Assurance audit is the measuring stick for determining if the franchisee is delivering on the brand standards and overall product or service offerings set by the franchisor. The data suggest that quality assurance should be considered one of the most important aspects for franchising businesses given the impact on customer satisfaction and revenue (Table 53). The principal-agent relationship adds a layer of complexity with regard to ensuring that brand standards are fulfilled by the agent (franchisee). When customer expectations are not met in the realm of multiple franchise units, the Expectation Confirmation Theory (ECT) further extrapolates on the concept that distrust occurs with the customer—inconsistency damages the brand.

Table 53 Contribution to Practice: Management at the Hotel

Impact of General Manager on Performance and Quality
Quality and performance are considered to be highly influenced by the general manager of the hotel; the argument is made that quality is the responsibility of the general manager and that quality assurance processes have less of an impact on how each aspect influences the process (Harp, 2017). However, franchise organizations do not manage nor incentivize the general manager due to legal reasons for the Franchise License Agreement. Therefore, the franchisor must find other means for exerting influence on the hotel. Quality assurance processes allow exertion of performance on a hotel, as long as the Franchise License is at stake for noncompliance (Harp, 2017).

As such, ensuring that the product meets the expectations of the customer and are within compliance of the brand is the responsibility of both the franchisor and franchisee. This study proves the relationship through the lens of the Expectation Confirmation Theory (ECT) and the repercussions when there is a weak link in this chain of experience.

Table 54 Extractions Which the Data Suggest

Extractions from H1: Quality on Customer Satisfaction and Guest Experience
Contributions to the Expectation Confirmation Theory: • The data and literature support that quality assurance is arguably the most important aspect of franchising with measuring customer expectations. Franchisors exert only so much power on the franchisees to protect the brand from disconfirmation, distrust, and agency costs. Quality assurance is one of the few measurement tools the franchisor has control over, as long as the repercussions are significant.

- The literature supports that distrust can occur when the Agency Theory principles of free riding and shirking (both components of the Agency Theory) surface with franchisees and hotels. The data and literature support that strong quality assurance processes and protocols are the control mechanism for ensuring that the brand is protected. Metrics must be disclosed to the franchisee, and accountability to those metrics must be complied to with no exceptions.

Contributions to Practice:

- The data support when franchisors measure individual assets against one another in percentile format; the target for performance yardstick continues to elevate Customer Satisfaction: Experience scores. When the measurement is set to a raw number, performance decreases with the hotel. The data support that percentiles are nearly double, sometimes triple—an effect on driving and predicting Customer Satisfaction: Experience.

- The data suggest that quality assurance has the potential to drive profitability at levels that offset up to two full-time equivalent employees.

- The data suggest that certain Smith Travel Research (STR) class hotels have greater implications related to explained variance and beta coefficients. Quality assurance with Extended Stay and All Suites hotels have a greater impact on Customer Satisfaction: Experience. Future research is needed to validate if this is due to the length of stay and type of customer staying at the hotel.

In reviewing the data, Quality Assurance surfaced as significant and impactful. Additionally, the data surfaced additional aspects of operational decisions related to anchoring (Table 55).

Table 55 Special Note: Outcomes with Quality Assurance

Effects of Percentiles vs. Anchoring to Raw Data Score
During the 2010–2011 period, the organization studied in this paper made a significant change in the quality assurance process. For the years prior to 2010, they focused solely on raw data figures for scoring with hotels. Each hotel was measured against a raw data score for performance expectation. After 2010, the organization shifted to rankings and percentiles. This change allowed each hotel to be compared to other franchise locations, which ranked them in a percentile. In reviewing the data, there are significant implications that can be extrapolated between the two scoring models, and future research is warranted on implications of franchise organizations grading locations based on raw scores versus ranking hotels in order. The data suggest that by ranking hotels, the hotel may be more motivated to increase performance rather than the anchoring effect that occurs with setting a raw number.

As the data suggest, quality assurance is the cornerstone for driving the customer experience and ensures that compliance is achieved with brand standards and expectations are met.

Table 56 Impact of Quality on RevPAR

Quality Assurance Increase of	**Results in Customer Experience Increase of**	**Which drives Customer Recommendation by**	**Resulting in RPI increase of**	**Driving RevPAR by**
10 pts	5 pts to 8 pts	4.1 pts to 8 pts	0 pts to 1.9 pts	$0 to $1.06

With each visit by the Quality Assurance Audit team, the franchisor receives confirmation that the hotel is in compliance of the standards. In looking at the quality aspect of the business through the Expectation Confirmation Theory (ECT), this process is a control mechanism not only to meet customer needs but to dually ensure that franchisees are not shirking or free-riding the system. The Agency Theory contributes toward the role that quality has in the experience and ensures that control mechanisms are in place to uphold the brand image and promise that come along with branding.

V.2 Interaction Effect of Brand Signaling With Quality on Customer Satisfaction And Guest Experience

The hospitality experience is based on a guest stay that is delivered by humans and dependent on a host of variables that impact the stay—such as location, the purpose of the trip, type of hotel needed, etc. The inception stage of the hotel journey begins with the customer taking into consideration those factors. At the time of booking, factors such as prior experiences (at that location or with that brand) are taken into consideration; loyalty to the brand through a franchisor program and ultimately brand then become under-considered. Consistency is critical to brand performance, and as (Mattila & O'Neill, 2003) suggested, performance variability results in uncertainty by the customer lowering the ability to benchmark on prior experiences for future stays. The brand signal is a means of communicating with the customer the quality level of the brand. Looking at this through the lens of the Expectation Confirmation Theory (ECT), the higher the expectation, the more critical the customer is on the product. Brand signaling is a surrogate for communicating the quality of the hotel to the customer.

Table 57 Extractions Which the Data Suggest

Extractions from H2: Interaction Effect of Brand Signaling with Quality on Customer Satisfaction and Guest Experience
Contributions to the Expectation Confirmation Theory: • The data suggest that distrust and the Agency Theory are factors that support the predictive nature of Customer Satisfaction: Experience when franchising is a component of the equation. If the experience from one hotel to another hotel differs, the expectation of the customer is compromised. If brand Ssignaling indicates that the experience is high, the score is impacted significantly. Contributions to Practice: • The data suggest the concept of brand signaling, or J.D. Power ordinal data, appears to partially support the hypothesis, but further research is needed to understand the complete implications fully. A suggestion is to use J.D. Power hotel-by-hotel scoring in the smaller sample for analysis—or potentially social media scores such as TripAdvisor when enough historical data is available. • The data suggest that brand signaling shifts the explained variance of Customer Satisfaction: Experience by up to (Adj. R2 Change = .143), which is a strong impact. • The data suggest that for every change in rank (up or down) in J.D. Power ranking, the Customer Satisfaction: Experience shifts by decreasing .034 to increases by .012. The higher the J.D. Power ranking, the lower the Customer Satisfaction: Experience, which is logical—as customers may be more critical of hotels for which they've received a strong brand signal.

Further research is needed on brand signaling, specifically with regard to the measurement of signaling. J.D. Power ranking data was used in this analysis, and while there was some level of output that was garnered from this analysis, the outcomes can be strengthened with either the actual ranking scores or another type of branding metric.

V.2.1 *Interaction Effect of Guest Loyalty Mix of Business with Quality on Customer Satisfaction and Guest Experience*

Brand awareness and recognition are important aspects of garnering loyalty with a multinational organization whose product offering is reliant on the agent of the brand to execute on the standards and delivery of the product. If the brand allows the customer to place trust in the reputation of the product and service, the concept of loyalty surfaces as important toward ensuring consistent experiences. While loyalty programs today have advanced offerings designed to capture the heart and mind of the customer, the foundational component of loyalty is the product or service.

The Guest Loyalty section of the model requires additional research and potential control variables to further this analysis. While the mix of business and location type was tested in the analysis as a control variable, they provide no significance to the explanatory outcome. The high level of analysis conducted proved that guest loyalty programs and mechanisms are critical, and this is supported by the literature. Consequently, the interaction effect with quality assurance and guest loyalty related to Customer Satisfaction: Experience results in mixed outcomes, but the data still provide a clear picture of the importance of guest loyalty mix of business and this customer segment.

Table 58 Extractions Which the Data Suggest

Extractions from H3: Interaction Effect of Guest Loyalty Mix of Business with Quality on Customer Satisfaction and Guest Experience
Further research is needed on where additional layers of analysis could assist with flushing out more consistent data points. In addition to possible other control variables, market supply may have impacted the results of the study and should be reviewed more.
Contributions to the Expectation Confirmation Theory:

- The data suggest that loyalty, or brand association, may change perspectives on experience during periods of stable or strong economic periods versus distressed periods (Figure 32)

Contributions to Practice:

- Moderate to strong correlation exists between guest loyalty and RevPAR, suggesting a relationship that the higher the guest loyalty member staying at a hotel, the higher the RevPAR (Table 59).

- The Adjusted R^2 values suggest that future research is warranted given the impact suggested by these values, but the numbers show that loyalty has a significant impact on Customer Satisfaction: Experience—upwards of 1 to 2 percent impact on explained variance.

- The data are inconsistent from a significance perspective but demonstrate that for every 1 percent increase in guest loyalty mix of business, the Customer Satisfaction: Experience changes anywhere from -.10 to .15 depending on the brand group (Figure 32). Future research is needed to better control for this relationship.

While the data suggest that more analysis is needed with further control variables to achieve significance, the relationship between the guest loyalty and revenue per available room (RevPAR) is highly correlated, and the data support assumptions that this relationship is imperative to brand association and overall hotel performance (Table 59).

Table 59 Correlation Results of Guest Loyalty to RevPAR by Brand Group

Correlation of Overall Guest Loyalty to REVPAR		Upscale Class, Full Service, Conversion Brand	Upper Upscale Class, All Suites	Upscale Class, Limited Service	Upper Upscale Class, Full Service	Upscale Class, Extended Stay	Upper Midscale Class, Limited Service
2006	Pearson Correlation	**DATA NOT OBTAINED**					
	Sig. (2-tailed)						
	N						
2007	Pearson Correlation						
	Sig. (2-tailed)						
	N						
2008	Pearson Correlation	**.512****	**.608****	**.619****	**.529****	**.682****	**.223****
	Sig. (2-tailed)	0.000	0.000	0.000	0.000	0.000	0.000
	N	178	180	391	210	245	1425
2009	Pearson Correlation	**.540****	**.642****	**.621****	**.594****	**.713****	**.639****
	Sig. (2-tailed)	0.000	0.000	0.000	0.000	0.000	0.000
	N	192	187	450	219	274	1557
2010	Pearson Correlation	**.441****	**.551****	**.450****	**.483****	**.603****	**.575****
	Sig. (2-tailed)	0.000	0.000	0.000	0.000	0.000	0.000
	N	203	193	471	222	292	1635
2011	Pearson Correlation	**.440****	**.452****	**.431****	**.458****	**.446****	**.509****
	Sig. (2-tailed)	0.000	0.000	0.000	0.000	0.000	0.000
	N	221	197	485	223	296	1683
2012	Pearson Correlation	**.447****	**.360****	**.396****	**.480****	**.428****	**.470****
	Sig. (2-tailed)	0.000	0.000	0.000	0.000	0.000	0.000
	N	247	200	504	227	304	1739
2013	Pearson Correlation	**.437****	**.314****	**.326****	**.459****	**.491****	**.439****
	Sig. (2-tailed)	0.000	0.000	0.000	0.000	0.000	0.000
	N	272	205	518	230	321	1809
2014	Pearson Correlation	**.404****	**.298****	**.249****	**.481****	**.336****	**.388****
	Sig. (2-tailed)	0.000	0.000	0.000	0.000	0.000	0.000
	N	287	208	543	233	340	1875
2015	Pearson Correlation	**.468****	**.411****	**.234****	**.469****	**.428****	**.423****
	Sig. (2-tailed)	0.000	0.000	0.000	0.000	0.000	0.000
	N	311	215	573	236	368	1959

With a further review of significance values, the data can potentially support that brand association potentially is influenced in times of stable and strong economic prosperity (Figure 32). A hypothesis can be made that during down economic periods (Years 2008 and 2009), hotels may have dialed back operational components to the business that immediately impacted the experience for customers. In looking at Figure 32, the path coefficients demonstrate a negative relationship in 2008 and 2012, when these years experienced industry contraction from

the prior year (Table 60; reference negative occupancy change in 2008 and 2009 with increased standard deviation, as well as decreases in 2012).

Figure 32 Path Coefficients for H3: Interaction Effect of Quality Assurance on Guest Loyalty Mix of Business Related to Relationship

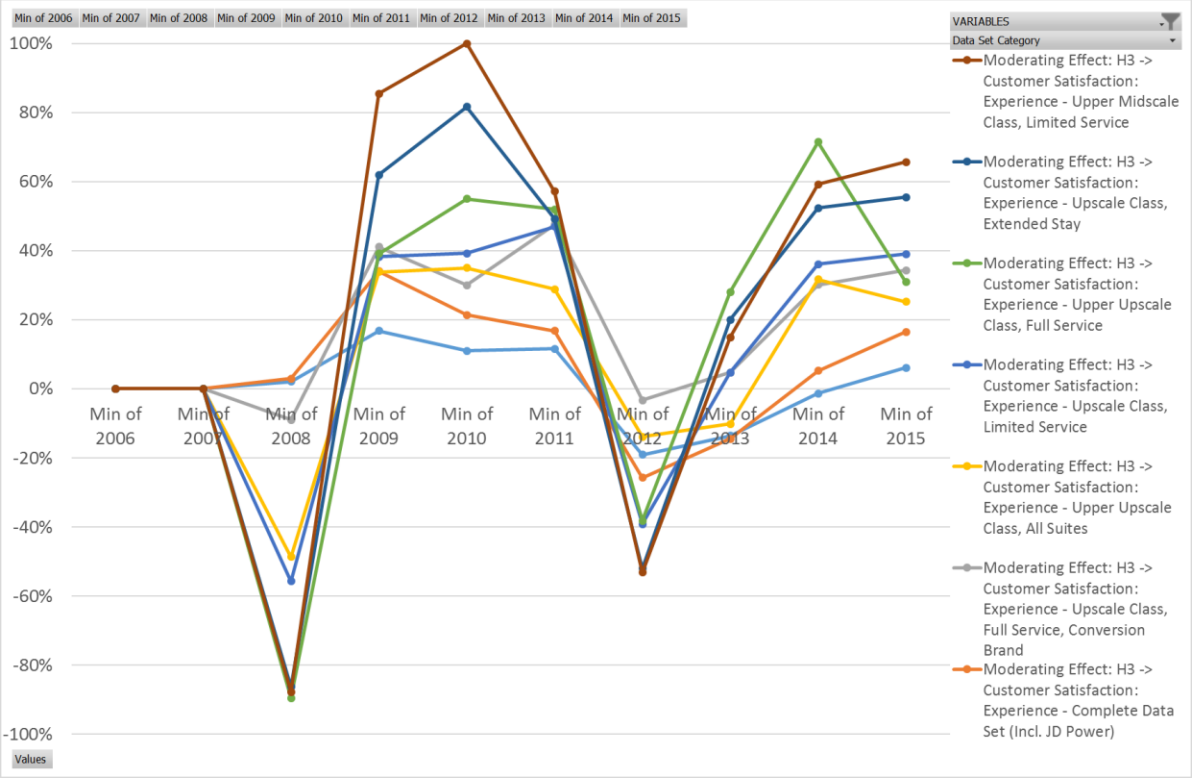


Table 60 Occupancy Change Year over Year for Complete Data Set

Year	N	Mean	Std. Deviation
2006	2158	1.85	7.09
2007	2331	1.40	7.86
2008	2528	-1.07	8.15
2009	2794	-3.14	9.09
2011	3160	3.39	6.36
2012	3220	2.16	5.58
2013	3300	1.48	5.82
2014	3399	2.93	5.54
2015	3515	1.48	6.02

Future research is also needed to fully understand economic implications to the business around guest loyalty and Customer Satisfaction: Experience.

V.3 Customer Satisfaction and Guest Experience Impact Customer Recommendation

The relationship between Customer Satisfaction: Experience and customer recommendation is both practical and theoretical. Essentially, if the customer is satisfied with the product or service, then they are more likely to recommend the hotel and return to the hotel. As the data suggest, Customer Satisfaction: Experience directly determines the customer's [intent to] recommend the hotel. The analysis suggests that there is a near 1-to-1 relationship with Customer Satisfaction: Experience and customer recommendation, ultimately leading to driving revenue (Table 61).

Table 61 Impact of Quality Assurance on RevPAR

Increase Customer Experience Increase of	Which drives Customer Recommendation by	Resulting in Market Share (RPI) increase of	Driving RevPAR by
5 pts to 8 pts	4.1 pts to 8 pts	0 pts to 1.9 pts	$0 to $1.06

In relation to the Expectation Confirmation Theory (ECT), disconfirmation and confirmation are ultimately the evaluations (or judgments) made by the customers when they experience the product or service. The data suggest that how customers answer the questions around Overall Experience and Problem Free Stays dictate how they answer if they will Recommend or Return to the hotel.

Table 62 Extractions Which the Data Suggest

Extractions from H4A: Customer Satisfaction and Guest Experience Impact Customer Recommendation
Contributions to the Expectation Confirmation Theory:

- The data suggest that Customer Satisfaction: Experience is a near perfect relationship with customer recommendation, based on the Overall Experience at the hotel and whether the customer experienced a problem that determines the intent for post-purchase or repurchase (return).

Contributions to Practice:

- The analysis can be strengthened with the introduction of the "people" aspect of the organization. A competent and focused general manager is able to drive both quality assurance and customer satisfaction, but in the franchise world, the franchisor has little influence on this decision (or the general manager's incentive program).

The evaluation of the product and service is made during the experience, and consideration must be made around the continuum of disconfirmation. The theory suggests that experiences often are not unfavorable, but not favorable—which means that consistency is critical in the franchising of hotels (Oliver, 1977). Complimentary, according to Tajefl (1978), satisfaction is "cognitive and emotional" and is "rarely neutral," which suggests that we apply preconceived opinion on our experiences. Delivery of a quality experience is paramount to owning the customer perception of experience and ultimately their intent for post-purchase or repurchase.

V.4 Customer Recommendation Impact on Market Share (RPI)

Customer recommendation is important to business performance and success; this is no mystery and is relatively straightforward. In the Expectation Confirmation Theory (ECT) model flow, customer recommendation comes to life when attitude merges with future intention. Consistency with products and services is critical in the cycle of ensuring alignment of attitude and intention and emerges as an area of management needed by the franchisor. Customers who are satisfied (and willing to make recommendations) are willing to pay for benefits and have a

greater tolerance for price increases (Anderson et al., 1994). As customer satisfaction increases, market share follows, both of which are also followed by loyalty, reduction in price elasticity, ability to retain, decrease in the cost to retain and for future transactions, decrease in the cost to attract customers (a function of recommendation) and enhanced reputation (Anderson et al. (1994).

Table 63 Impact of Quality Assurance on RevPAR

Increase Customer Recommendation by	Resulting in Market Share (RPI) increase of	Driving RevPAR by
4.1 pts to 8 pts	0 pts to 1.9 pts	$0 to $1.06

From the beginning of how the customer experience is curated, franchisors and franchisees need to make sure they first look to understand the customers' needs. When looking at the needs of customers and consumers of products and services, the customer recommendation exists when the offering meets their definition of what quality and value are from the inception of the experience (Zeithaml, 1988).

Table 64 Extractions Which the Data Suggest

Extractions from H4B: Customer Recommendation Impact on Market Share (RPI, STR Revenue per Available Room Index)
Contributions to the Expectation Confirmation Theory: • The data support that customer recommendation strongly influences market share (RPI). Therefore, the data suggest that hotels should ensure they are embracing all aspects of return visits, retaining existing customers, and making guest loyalty a strategic imperative. • The data support the literature regarding the fact that customer experience that is good (or positive) does not always move the needle as much as bad experiences significantly bring down the score. Contributions to Practice: • The data support the theory that customer recommendation starts with verification of product and service delivery with quality assurance, execution, and meeting Customer Satisfaction: Experience to achieve the customer's validation and support to recommend the hotel.

When hotels deliver on expectations of the customer (quality) and meet or exceed on experience (satisfaction), customers are more adept to recommend the hotel, product, or service. As discussed with Anderson et al. (1994) in prior sections, customer satisfaction and market share intersect when expectation and satisfaction are achieved—and this results in increased loyalty, greater ability for hotels to drive price, the creation of insulation from competitive threats, and lower costs to attract new customers.

V.5 Market Share (RPI, STR Revenue Per Available Room Index) Impact On Revenue Per Available Room (RevPAR)

The quality and customer satisfaction components of this model come together at the cross section of market share (RPI) and generation of revenue per available room (RevPAR). There is a push-and-pull that exists with the principal-agent relationship (the Agency Theory) in

franchising: Franchisor revenues are optimized through franchise fees collected versus franchisee gross operating profit that may not always be aligned with the revenue and cost savings strategies of the franchisor. What these two stakeholders have in common is a shared objective to grow revenue. Market share (RPI) is a critical aspect of growing revenue, including ensuring that fair share is captured—through both existing demand and new generators. Unsold rooms are gone forever, so capturing the customers to fill those rooms seems obvious but may not always be easy for the hotel to tackle if they do not embrace the practical and theoretical logic of quality and customer satisfaction.

Table 65 Impact of Quality Assurance on RevPAR

Increase Market Share (RPI) by	Driving RevPAR by
1.9 pts	$0 to $1.06

The role of the brand is to provide familiarity to the customers by providing confidence in the product. Brand equity is built around the concept that a consumer reacts in a favorable way to the brand. Awareness and perception are the factors that drive mindshare with the customer. Driving revenue premiums and hotel performance is a function of many aspects of the business, but in a world of scarcity and trade-offs, franchise and franchisee organizations need to balance the power to brand, protecting the brand, and how they ensure that all stakeholders from end-to-end are involved with the process.

Table 66 Extractions Which the Data Suggest

Extractions from H5: Market Share (RPI, STR Revenue per Available Room Index) Impact on Revenue per Available Room (RevPAR)
Contributions to the Expectation Confirmation Theory: • The data suggest that franchisors and franchisees cannot ignore the ripple effect that poor quality assurance scores and practices have on the business and customers. Ignoring or not embracing this aspect of the business has significant effects on how hotels perform against the competition in retaining a customer base and how they can drive incremental revenue. Contributions to Practice: • The data suggest that market share in the form of Smith Travel Research (STR) Revenue per Available Room Index (RPI) has a strong influence on revenue per available room (RevPAR). • The data support that hotels that embrace the core foundational aspects of the model with quality and customer satisfaction drive performance in the form of incremental RevPAR (known as RPI Impact). • The data suggest that future research is needed in determining the implications for franchisor organizations that do not protect their brands and lose brand equity as a result.

Execution of products and services ultimately determine the customer post-purchase and repurchase. While new customer acquisition is always important for the performance of a business, protecting brand equity ensures that hotels are retaining existing customers, obtaining new customers through brand strength, and acquiring new customers as a result of the recommendation.

VI CONCLUSION

The hotel industry is a large contributor to the Gross Domestic Product, and the majority of hotels are managed in a franchise relationship. The institutions of the hotel have a foundation on serving others with innovation and the comforts of home. The needs of guests (customers) shift as the world around evolves—from room service to the piña colada, the industry has stepped up to meet the needs of the consumers. As a new generation enters the marketplace with eyes on experiences and looking to get out in the world, the hotel industry is poised for growth. When inbound international travelers are welcomed with political policies that are friendly to these same considerations, the marketplace will continue to expand. Add population growth with larger swaths of travelers coming of age, and this is a recipe for the Golden Age of Travel. Today, travelers come armed with an awareness of what they should expect and digital tools to share with the world if their experiences do not meet those expectations (or disconfirm them). Technological advancements such as social media are allowing experiences that are subpar to be shared with the world. As from the industrial revolution to the technological revolution, customer experiences will only become more complex, and expectations will continue to rise. Franchisors need to ensure they are evolving with this new advancement, but by the same token ensure they are getting back to the basics of delivering the core fundamentals of guest experience.

Commoditization is no stranger to the travel industry. Many argue that the transportation segment (airlines, taxicabs, etc.) suffers from a commoditized approach to the business that is driven by a reduction of services and by allowing the experience to waver. Through cost-cutting and a race to affordability with consumers, the airline industry transformed into a commoditized product. The hotel industry will face the same commoditization if the industry loses sight of the

importance of maintaining quality. Franchisors must take measures to ensure that quality is maintained at the utmost level and hold franchisees accountable for the inability to deliver on the brand requirements and customer expectations. As digital experiences enter into the hospitality space, the gap between the hospitality experience and the product widen. Quality of the product in the form of cleanliness, standards compliance, and condition are at the forefront of the guests' (customers') minds. While the general manager of the hotel has the ability to shape how this experience is curated, the franchisor has an obligation to put stopgap measures in place to prevent damage to the brand. After all, the brand and its image and equity are truly the most valued tangible assets a franchisor has to offer.

As such, franchise organizations must embrace the "Network Effect" of ensuring that more units are in more diverse locations with consistency to ensure that growth of their business follows closely. With the broader availability of units in more locations comes the principal-agent conundrum of the best means for ensuring that consistency is achieved. By looking at the franchise relationship through the lens of the Expectation Confirmation Theory (and the Agency Theory), the implications of the intersection of industry growth and franchise growth come to life. While the leadership and management of the hotel matters, the control mechanisms to ensure that quality is achieved are just as important and represent one of the single most important areas over which the franchisor has purview. Guest loyalty programs will be the secret weapon of the future. The data support that if the chain of influence with experience is protected, then these travelers will achieve above-satisfactory stays.

Franchisors and franchisees can benefit immensely from understanding the relationship between Quality Assurance, Customer Satisfaction, Experience, Customer Recommendation, Market Share (RPI), and Revenue per Available Room—and act upon them. An industry built on

the shoulders of giants, hundreds of years ago, can thrive only when the franchisors and franchisees fully understand the repercussion of quality and the experience.

VII APPENDIX

A.1 Data Dictionary

ENTERPRISE ATTRIBUTES

- **Unique ID:** (INNCODE_ANON) each hotel has a unique id, anonymized via SPSS algorithm
- **Facility ID:** (FACILITYID_ANON) used by the financial department, linked to INNCODE_ANON, not used in this study
- **SubBrand:** (SUBRD_ANON) Brand category for hotel type within Enterprise
- **STR #:** (STR#_ANON) STR location identifier
- **Guest Rooms:** (GUEST_ROOMS) # of Guest Rooms at Hotel
- **Currency:** (CURRENCY) Currency for Hotel, all hotels converted to USD, adjusted for inflation

SMITH TRAVEL RESEARCH

STR (SMITH TRAVEL RESEARCH)

STR (SMITH TRAVEL RESEARCH)

Column Name	Description	Definition	Purpose
tyavl	Total year available rooms	# of Rooms Available for Sale to Guest *minus* Out of Order Rooms	The baseline of portfolio size and change can provide directional perspective on growth/ability
tyrev	Total year revenue	Total revenue generated by the hotel including all areas of business	The baseline for organization financial size and stability
tysold	Total year sold rooms	Sold rooms provide a baseline for occupancy	Owner ability to sell rooms
ADR (Rate) Index	Average Daily Rate Index (against competitors, defined by the hotel)	Total Rooms Revenue *divided by* Sold Rooms compared to Compset as Fair Share # (100 is an index, considered fair share)	Owner ability to effectively optimize sale of rooms
ADR	Average Daily Rate	Total Rooms Revenue *divided by* Sold Rooms	Owner ability to effectively optimize sale of rooms

Occ	Occupancy	Sold Rooms *divided by* Total Rooms	Ability to sell rooms
Occ Index	Occupancy Index (against competitors, defined by the hotel)	Sold Rooms *divided by* Total Rooms compared to Compset as Fair Share # (100 is an index, considered fair share)	Compared to the competition, sometimes owner owns the competitive asset
RevPAR	Revenue Per Available Room	Total Revenue *divided by* Total Rooms Available to be Sold	Industry financial measure standard for capturing optimal performance.
RevPAR Index	Revenue Per Available Room Index	Total Revenue *divided by* Total Rooms Available to be Sold compared to Compset as Fair Share # (100 is an index, considered fair share)	Index for room performance.

OPERATIONS

QUALITY ASSURANCE (QA)

Column Name	Description	Definition	Purpose
Score1	Overall Score	Overall score – all added up and calculated	Measures the overall cumulative score from the Quality Assurance visit at the hotel.
Clean1	Cleanliness Score	Cleanliness of overall product/asset.	Measures the cleanliness score from the Quality Assurance visit at the hotel.
Cond1	Condition Score	The condition of asset typically related to reinvestment and capital improvements (FFE, etc.)	Measures the condition score from the Quality Assurance visit at the hotel.
Stand1	Standards Score	Compliance with defined Brand standards	Measures compliance with standards set forth by the Brand as measured by the Quality

			Assurance visit at the hotel.

CUSTOMER SURVEY DATA			
Column Name	Description	Definition	Purpose
Sample Size (n)	Number of surveys collected per hotel	Number of surveys collected (completed) by the customer for each hotel	Used to understand the distribution of surveys at hotels in the analysis.
SurveysOverdue	Surveys that triggered alert for the hotel to respond to customer	Alerts sent for surveys that require customer follow-up	A number of surveys that have passed allocated time to follow-up with the customer, response time metric.
Accom	Accommodations	How did customer feel about overall accommodations	Measures perception by a customer about the hotel product offering from facility/asset perspective.
Cleanliness	Cleanliness of Rooms	Cleanliness of Room during stay	Measures customer perception of cleanliness of facility/asset.
Experience	Overall Experience	Measures “Overall Experience”during stay	Measures the customer perception of the overall experience at the hotel.
HelpfulnessStaff	Helpfulness of Hotel Staff	Measures Staff helpfulness during stay	Measures the customer perception of staff helpfulness.
LoyaltyWelcome	Welcome as Loyalty Member	Welcomes with acknowledgment of tier for loyalty program	Mesures if hotel welcomed guest to the loyalty program.

ProbExp	Problems Experienced / Incidences	Did the customer experience a problem	Measures if the customer experienced a problem or incident while on the property.
ProbReported	Problems Reported	Did customer experience problem, yes or no (lower is better)	Measures if guest reported problem experienced while at the property.
ProbResolve	Problem Resolution	Did hotel resolve the problem	Measures, if problem reported, was resolved to expectations.
Recommend	Recommend Hotel	Likelihood to Recommend	Measures the guest likelihood to recommend the hotel based on experience, stay, or Brand – indented to be from stay.
Return	Likelihood to Return	Likelihood to Return to the Property	Measures the guest likelihood to Return to hotel/property.
Service	Overall Service	Overall Service experienced while on property	Measures the guest perception of the service experienced during stay.

REVENUE MANAGEMENT			
LOYALTY			
Column Name	Description	Definition	Purpose
RevBaseTier	Revenue from Base Entry Loyalty Members	Revenue generated by the base member.	A measure of revenue generated from the base tier.

RevTopTier	Revenue from Top Loyalty Members	Revenue generated by Top tier member.	A measure of revenue generated from the top tier.
RevMid-Tier	Revenue from Mid-Tier Loyalty Members	Revenue generated by Mid-Tier member.	A measure of revenue generated from mid-tier.
RevNonMember	Revenue from Non-Members	Revenue generated by a non-member.	A measure of revenue generated from a non-member.
RevAboveEntryTier	Revenue from Above Entry Level Loyalty Members	Revenue generated by above entry tier member.	A measure of revenue generated from an above-entry-level member.
RoomsBaseTier	Rooms from Base Loyalty Members	Rooms from Base Entry Loyalty Members	Rooms generated by the base member.
RoomsTopTier	Rooms from Top-Tier Loyalty Members	Rooms from Top Loyalty Members	Rooms generated by Top tier member.
RoomsMid-Tier	Rooms from Mid-Tier Loyalty Members	Rooms from Mid-Tier Loyalty Members	Rooms generated by Mid-Tier member.
RoomsNonMember	Rooms from Non-Members	Rooms from Non-Members	Rooms generated by a non-member.
RoomsAboveEntryTier	Rooms from Above Entry Level Loyalty Members	Rooms from Above Entry Level Loyalty Members	Rooms generated by above entry tier member.
RoomsTotal	Rooms from All Members	Rooms from Base Entry Loyalty Members	Rooms generated by the base member.

A.2 Inflation Calculations

All revenue data was controlled for annual inflation using 2006 as the baseline year to allow for comparable scoring year-over-year.

CPI (Year over Year) – All Urban Goods

Year	Average Change per Year	Cumulative CPI	Cumulative Adjusted Rate	Cumulative Percent Adjusted
2006	BASELINE YEAR			
2007	2.8	2.8	97.2	0.972
2008	3.8	6.6	93.4	0.934
2009	-0.4	6.2	93.8	0.938
2010	1.6	7.8	92.2	0.922
2011	3.2	11	89.0	0.890
2012	2.1	13.1	86.9	0.869
2013	1.5	14.6	85.4	0.854
2014	1.6	16.2	83.8	0.838
2015	0.01	16.21	83.79	0.8379

A.3 Customer Survey Questions

FORMATIVE QUESTIONS

Likert Scale, 1-10
Extremely Satisfied (10-9), Satisfied (8-7), Neither (6-5), Dissatisfied (4-3), Extremely Dissatisfied (2-1)
*Reverse order

1. Your OVERALL EXPERIENCE as a guest?
2. Quality of SERVICE overall?
3. Quality of ACCOMMODATIONS overall?
4. Quality of PRE-ARRIVAL/ARRIVAL experience?

Likert Scale, 1-10
Excellent (10-9), Very Good (8-7), Good (6-5), Fair (4-3), Poor (2-1)
*Reverse order

5. Please rate the VALUE that you received for the price paid.
6. Cleanliness of bathroom
7. Cleanliness of guest room

REFLECTIVE QUESTIONS

Likert Scale, 1-10
Definitely Would (10-9), Probably Would (8-7), Might or Might Not (6-5), Probably Would Not (4-3), Definitely Would Not (2-1)
*Reverse order

8. How likely would you be to stay at THIS hotel again if you were to return to this area (for the same purpose)?
9. How likely would you be to RECOMMEND this hotel to someone else, if they were to require a hotel in this area in the future?

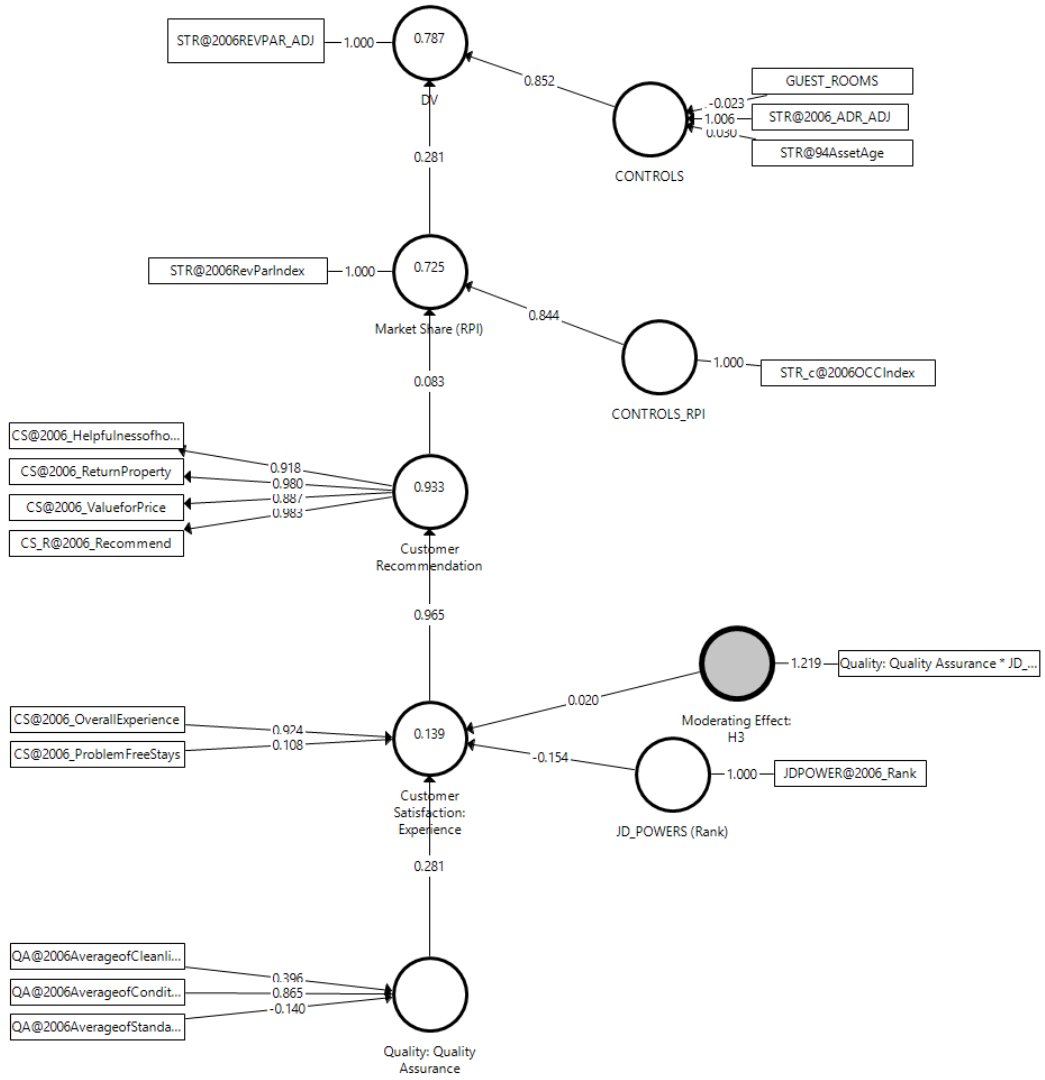
Ordinal
Yes/No

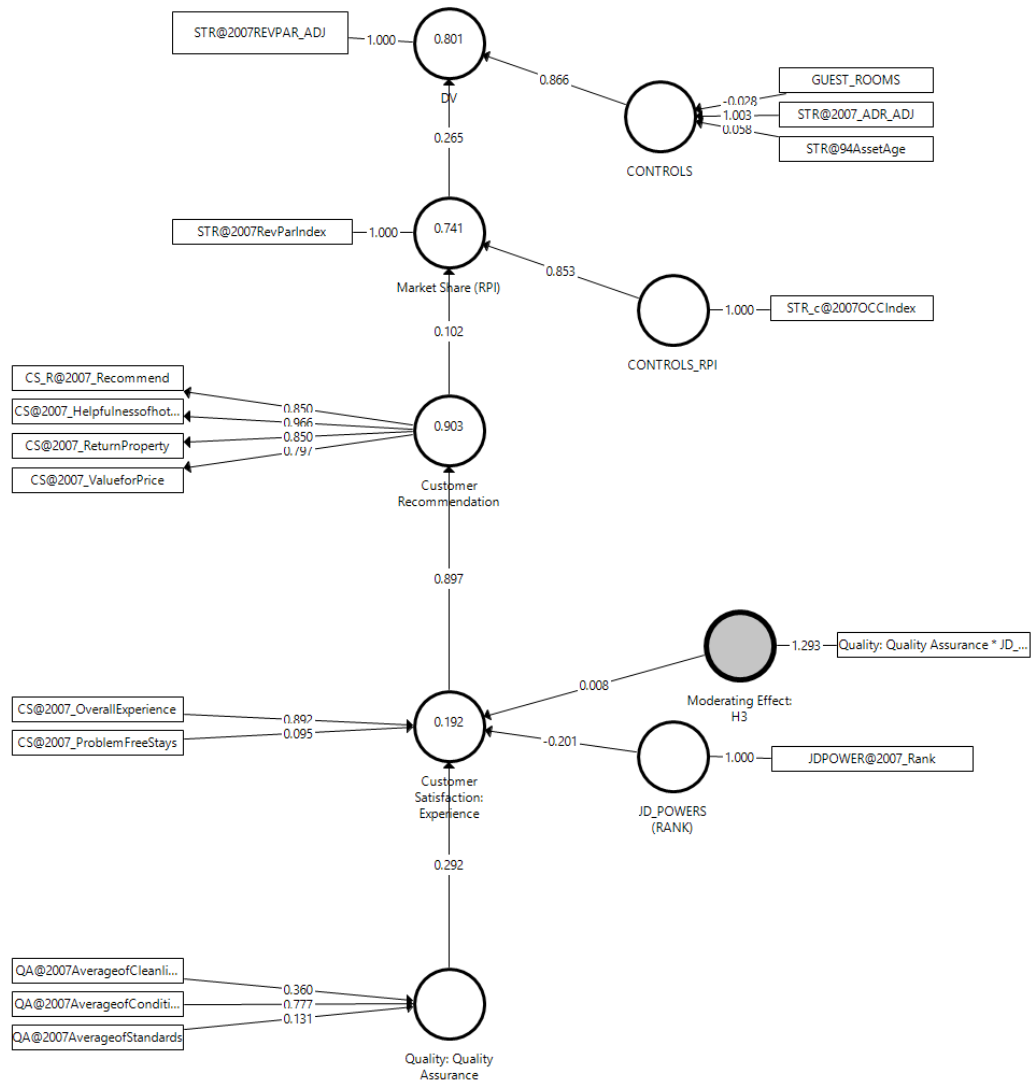
10. Did you experience any problems during THIS stay?

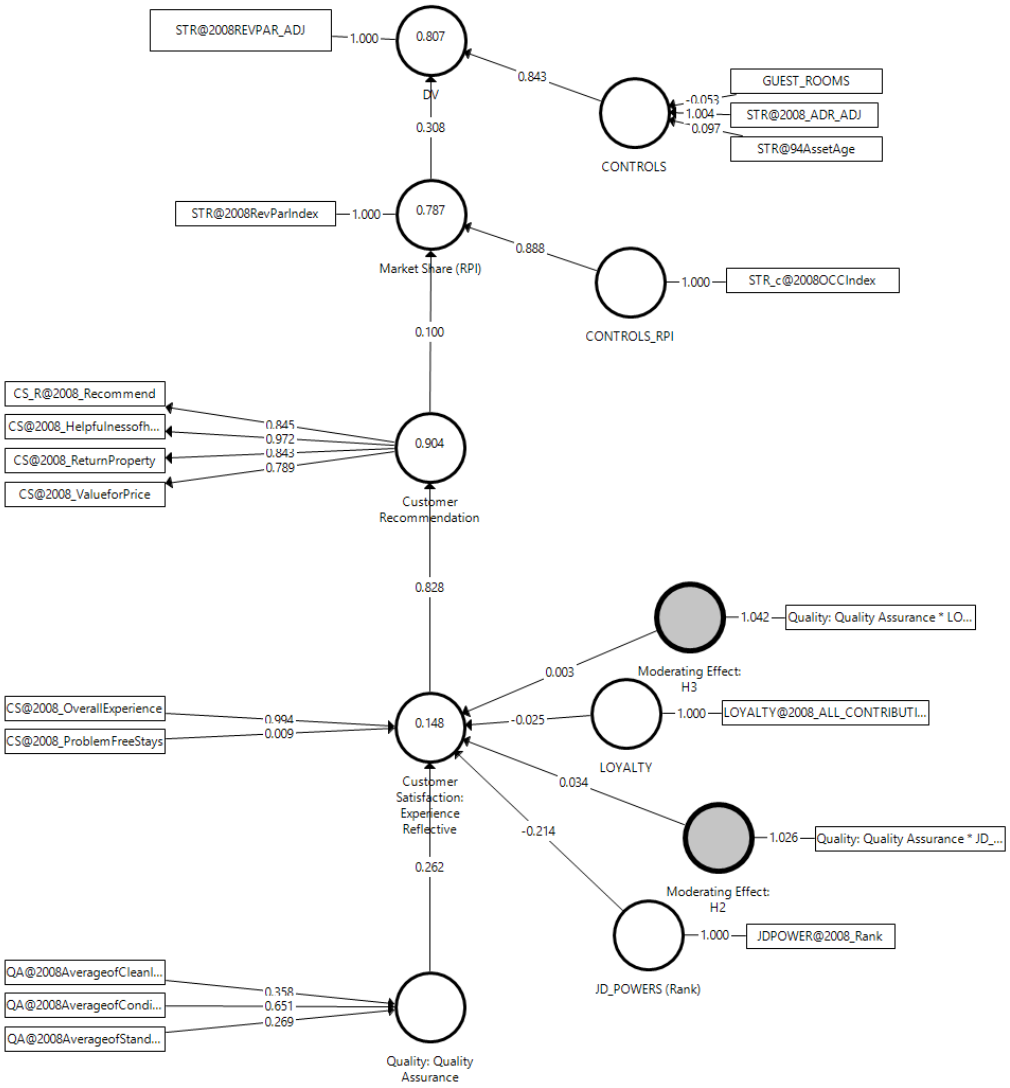
A.4 PLS Models (2006 – 2015, PLS And BOOTSTRAPPING Diagrams)

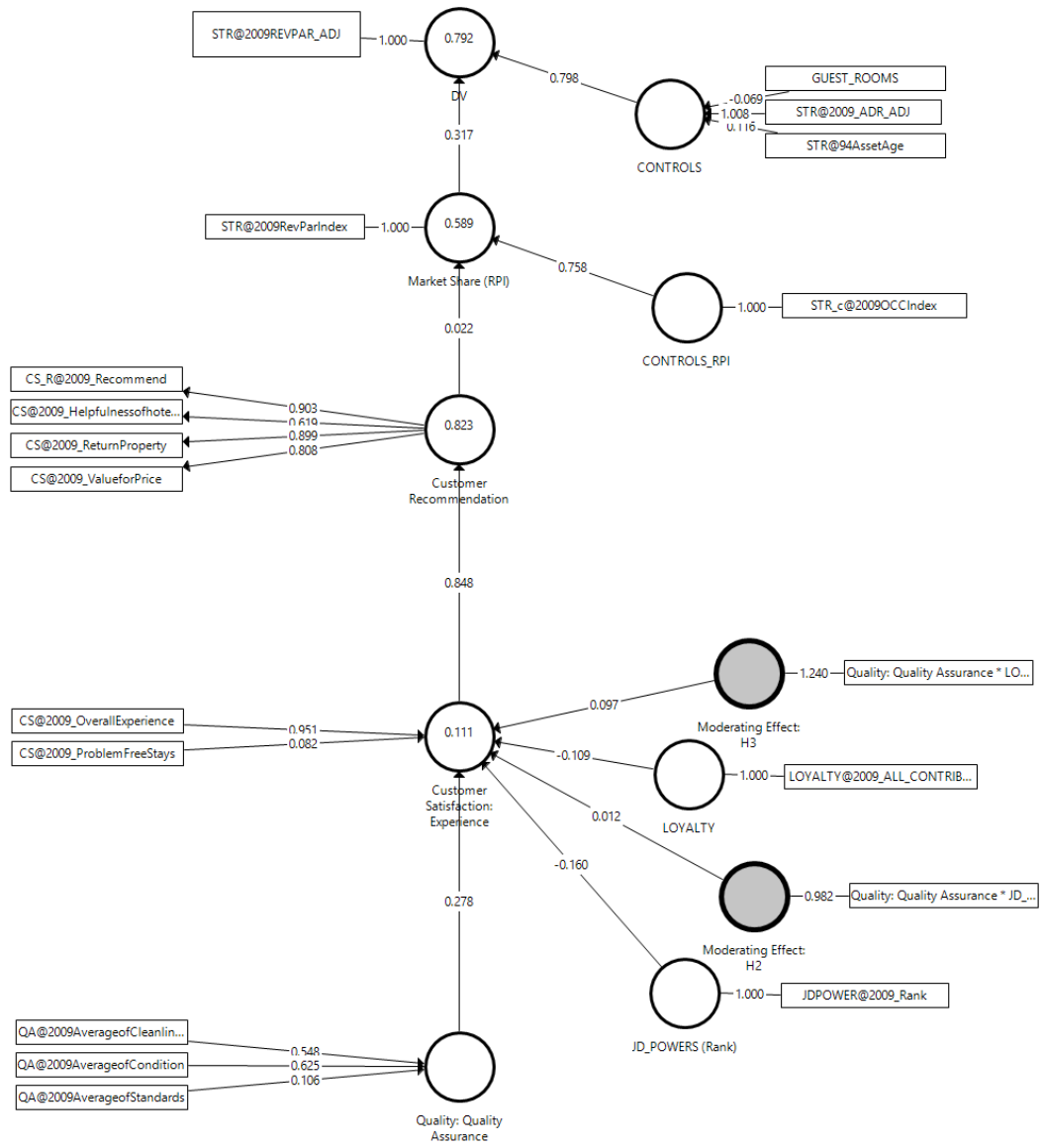
Partial Least Squares (PLS-SEM) Diagrams

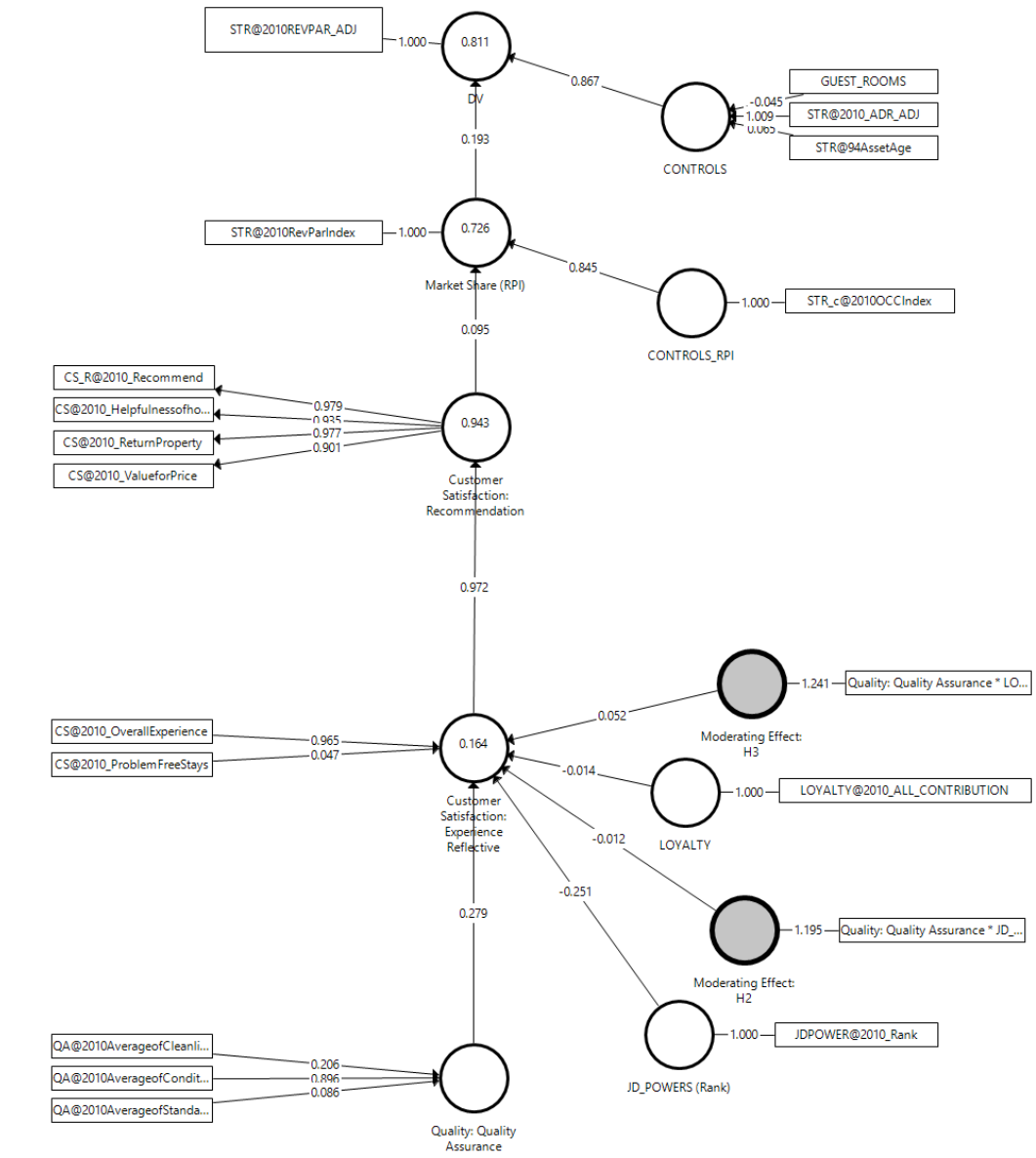
Additional diagrams at Brand Group level available upon request for Dissertation Committee review at the time of defense.

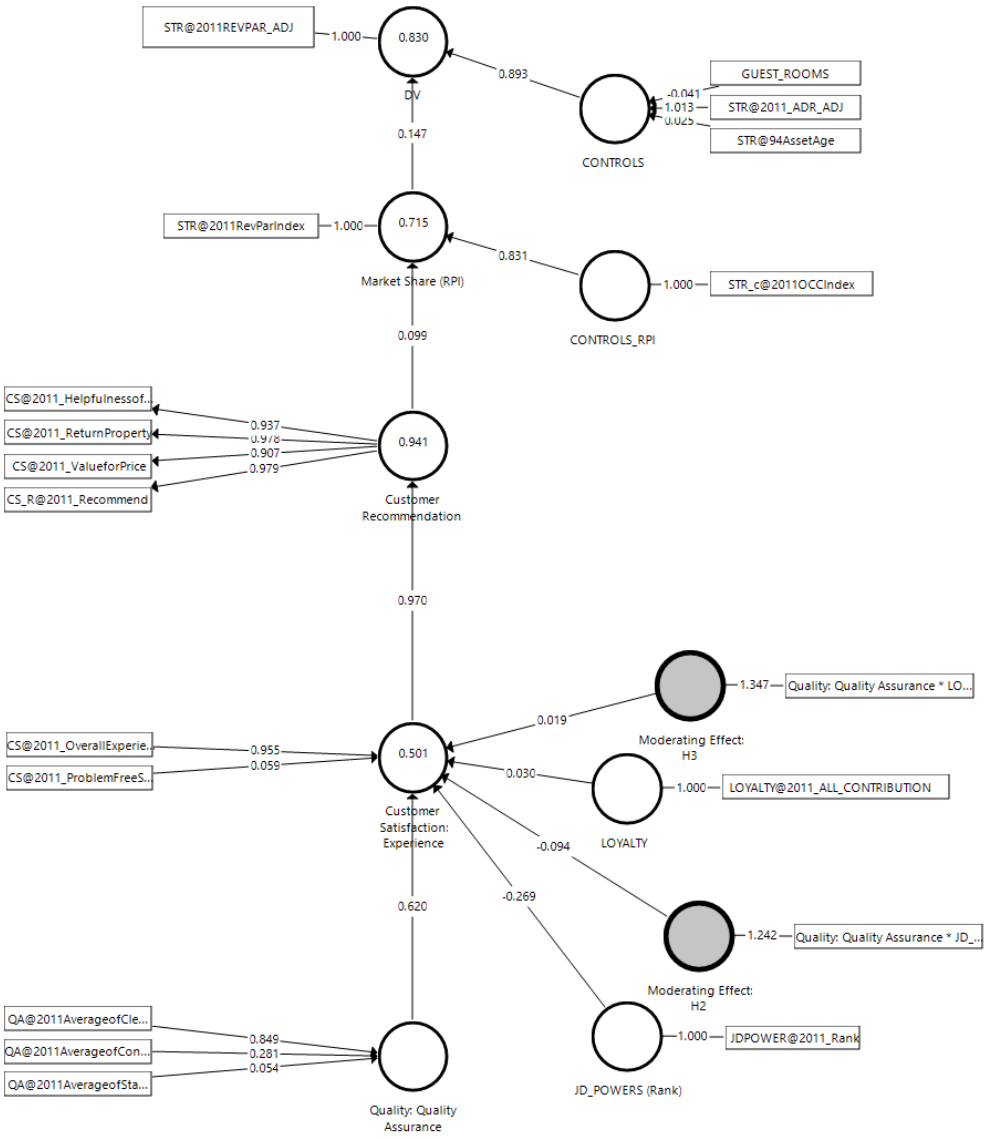
YEAR	Brand	PLS Model
2006	Complete Data Set with Loyalty & Brand Signaling (JD Powers)	

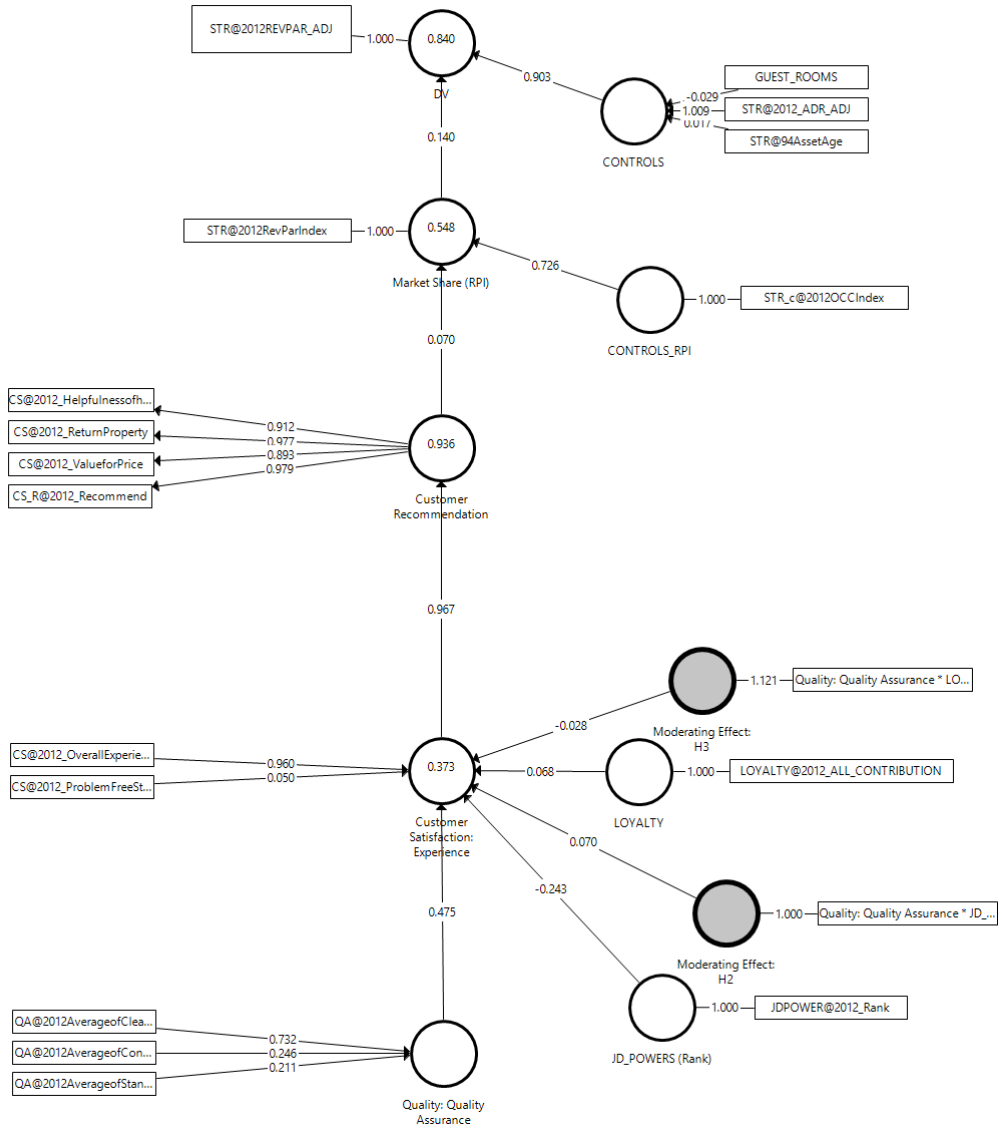
YEAR	Brand	PLS Model
2007	Complete Data Set with Loyalty & Brand Signaling (JD Powers)	

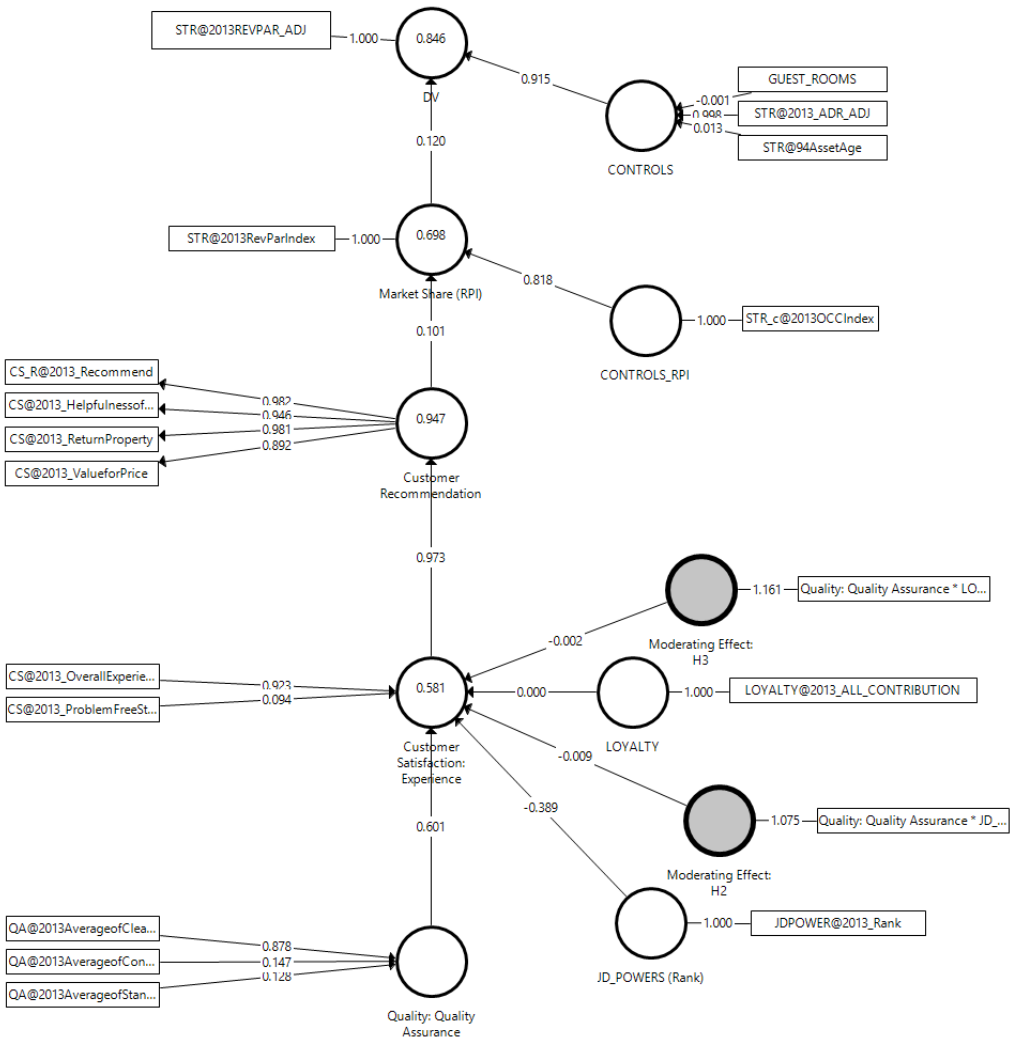
YEAR	Brand	PLS Model
2008	Complete Data Set with Loyalty & Brand Signaling (JD Powers)	

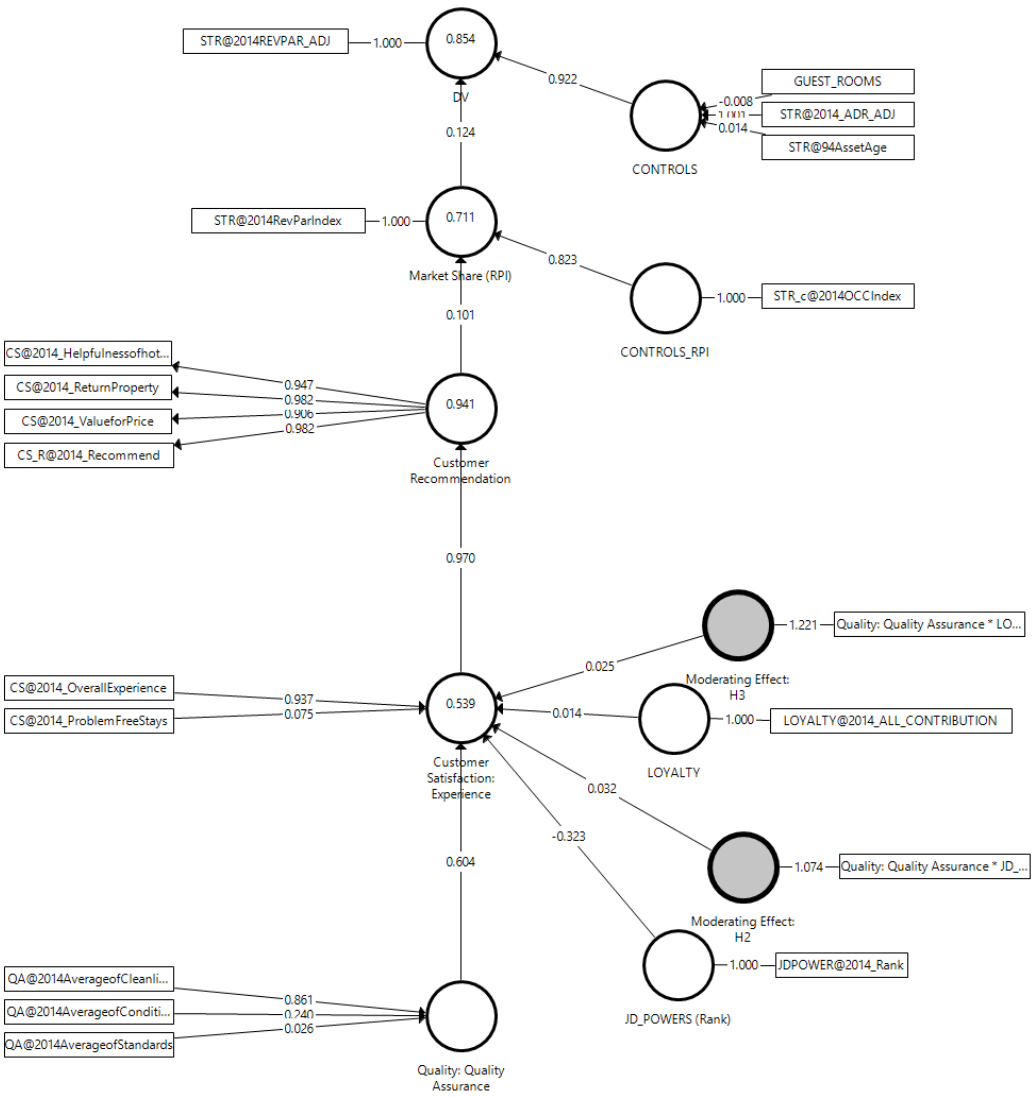
YEAR	Brand	PLS Model
2009	Complete Data Set with Loyalty & Brand Signaling (JD Powers)	

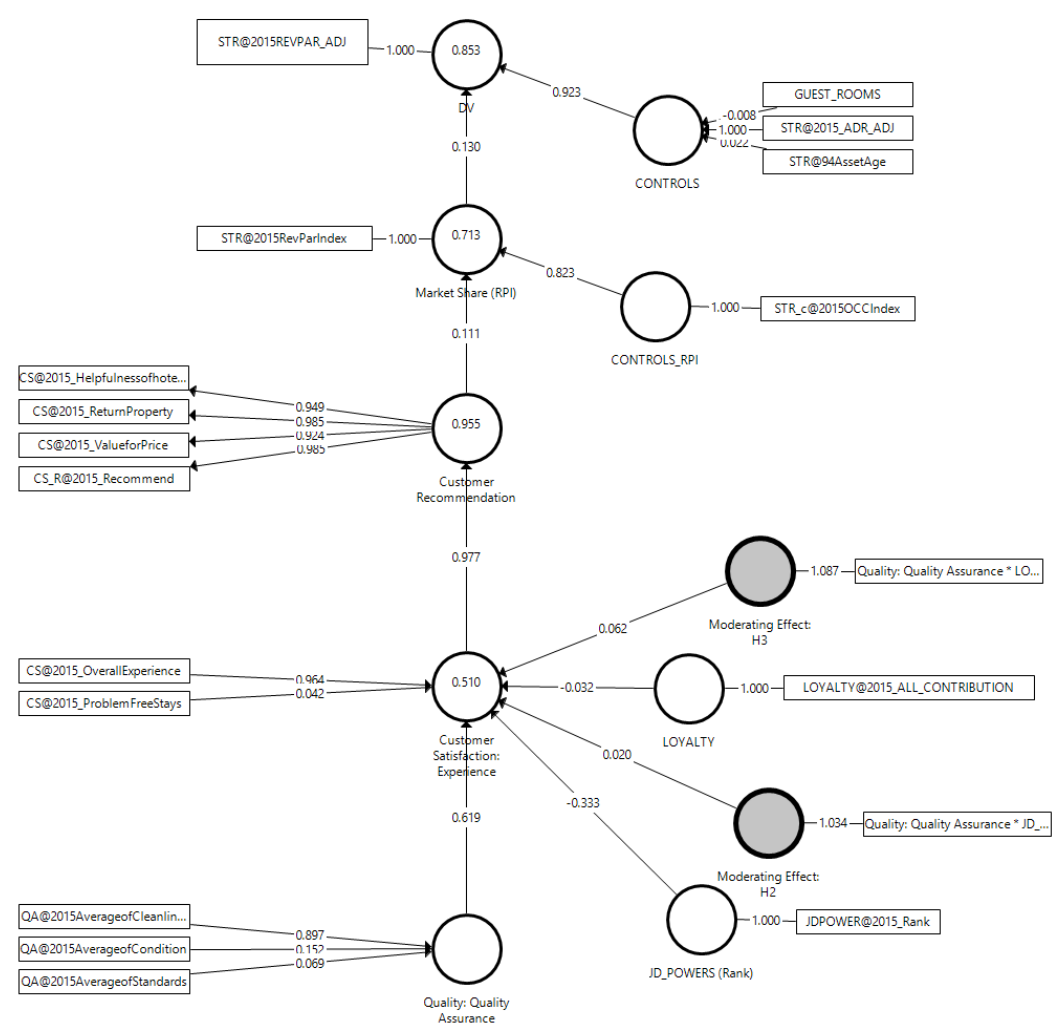
YEAR	Brand	PLS Model
2010	Complete Data Set with Loyalty & Brand Signaling (JD Powers)	

YEAR	Brand	PLS Model
2011	Complete Data Set with Loyalty & Brand Signaling (JD Powers)	

YEAR	Brand	PLS Model
2012	Complete Data Set with Loyalty & Brand Signaling (JD Powers)	

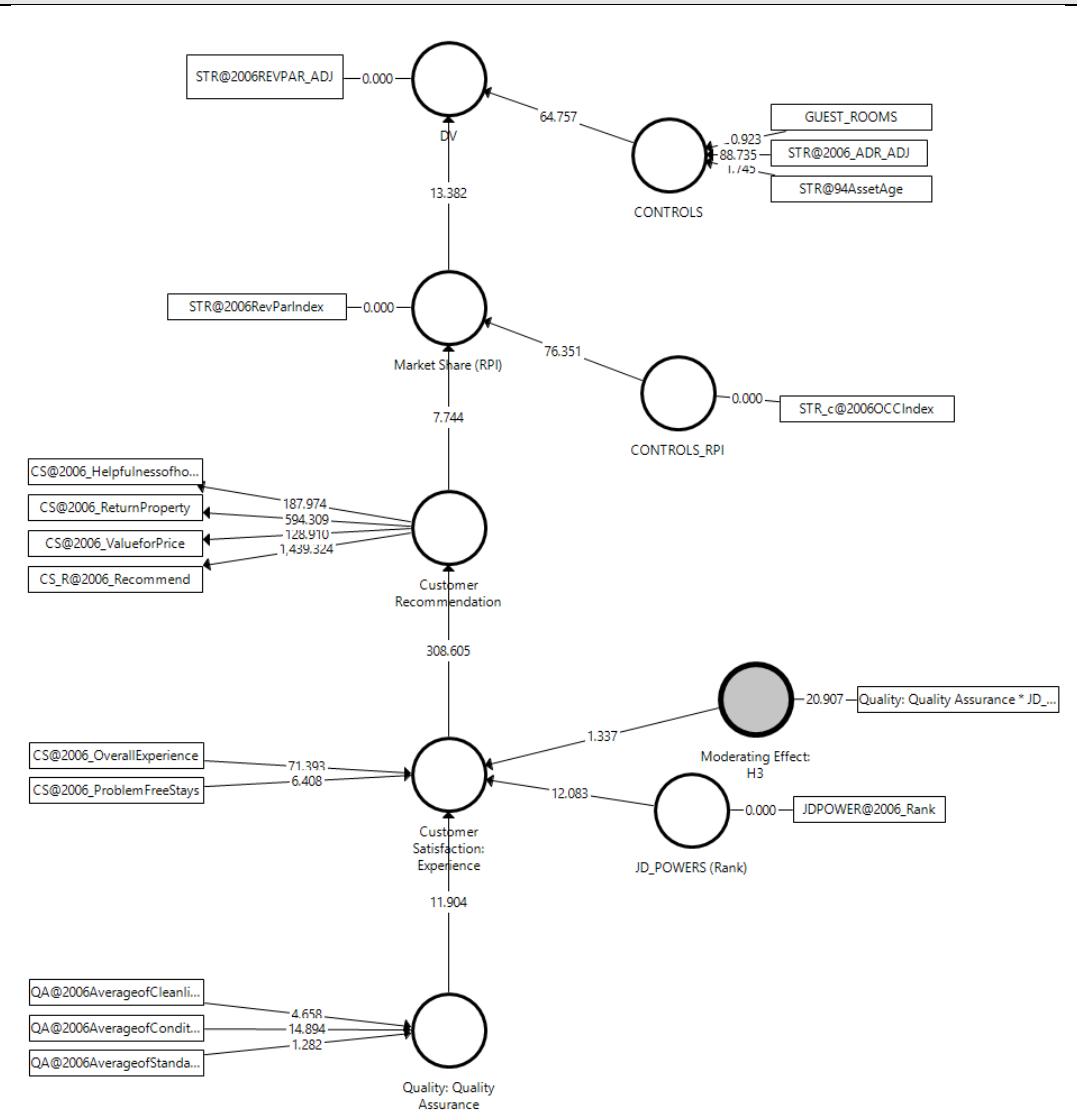
YEAR	Brand	PLS Model
2013	Complete Data Set with Loyalty & Brand Signaling (JD Powers)	

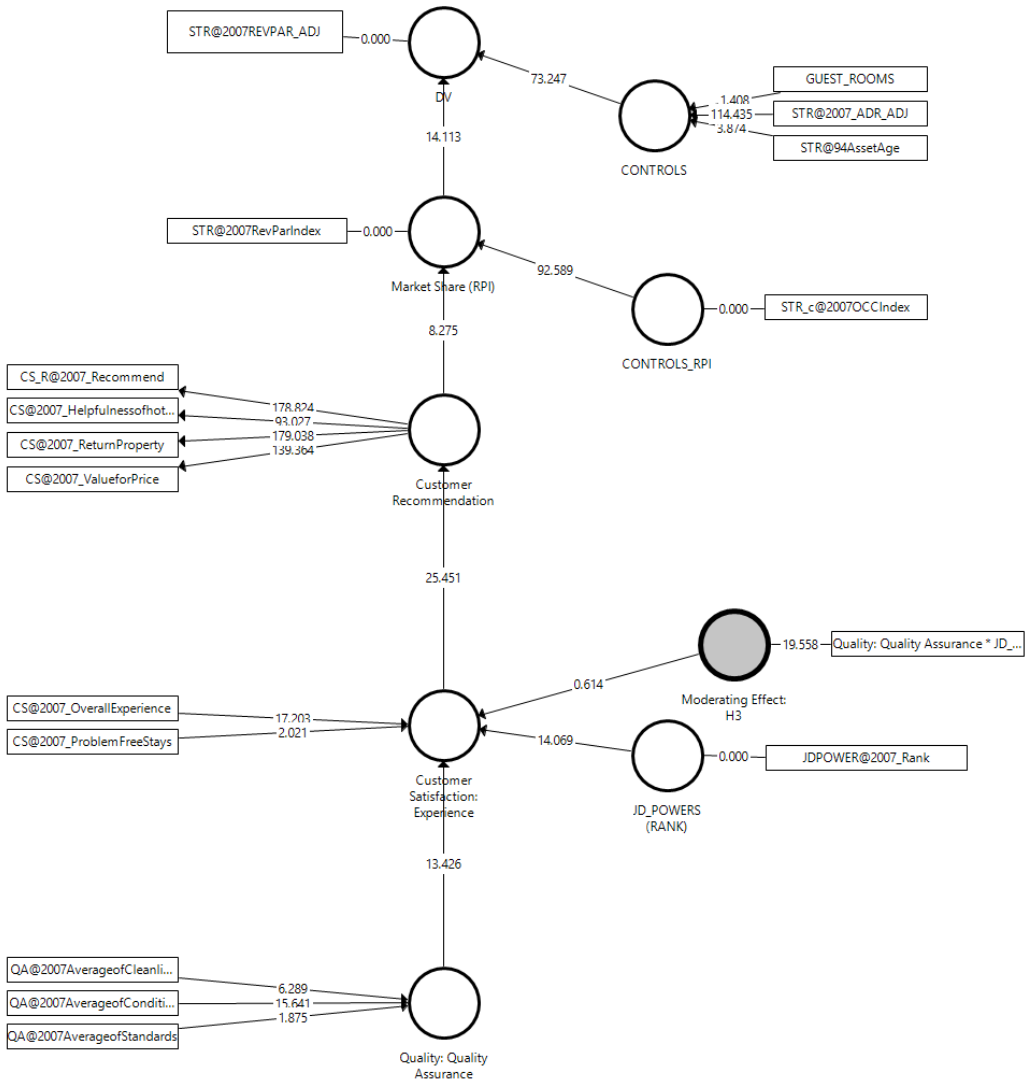
YEAR	Brand	PLS Model
2014	Complete Data Set with Loyalty & Brand Signaling (JD Powers)	

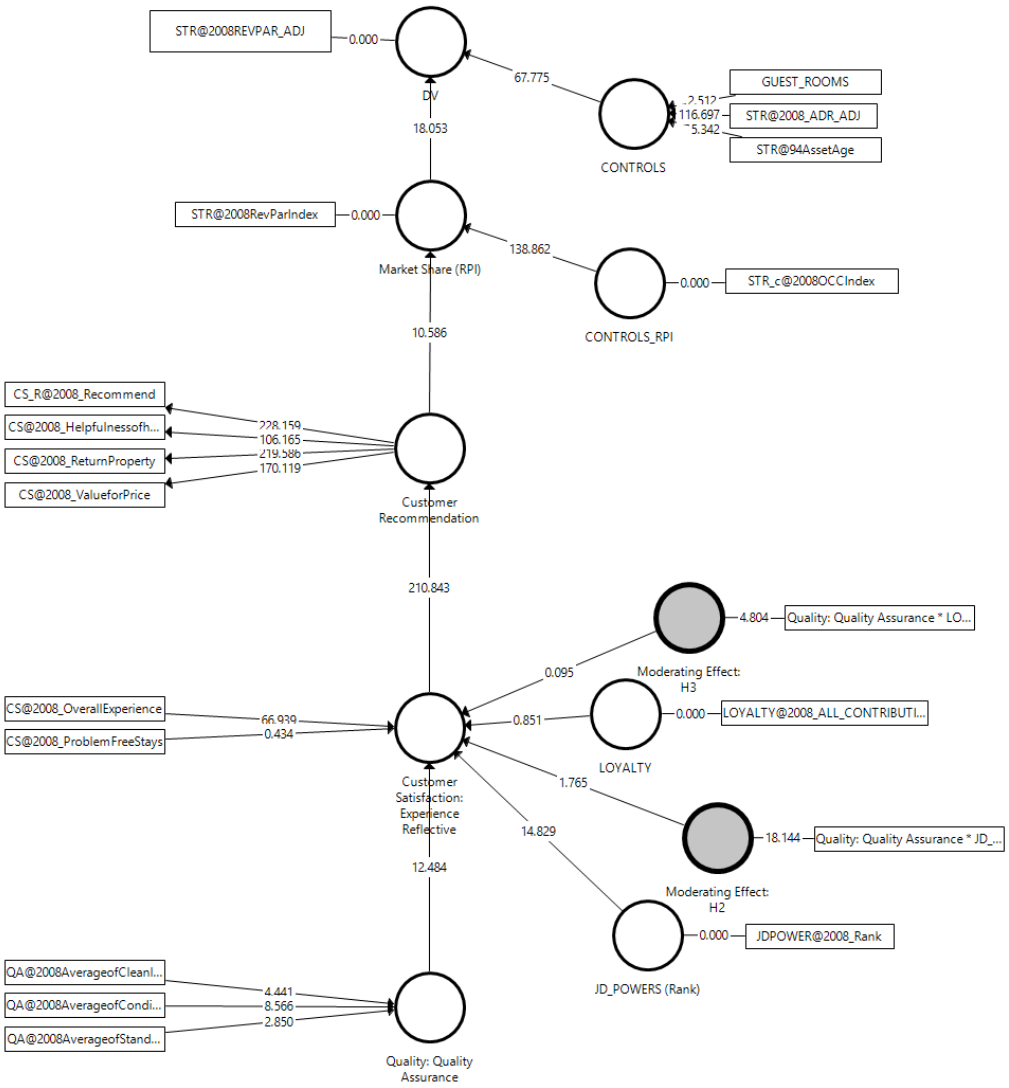
YEAR	Brand	PLS Model
2015	Complete Data Set with Loyalty & Brand Signaling (JD Powers)	

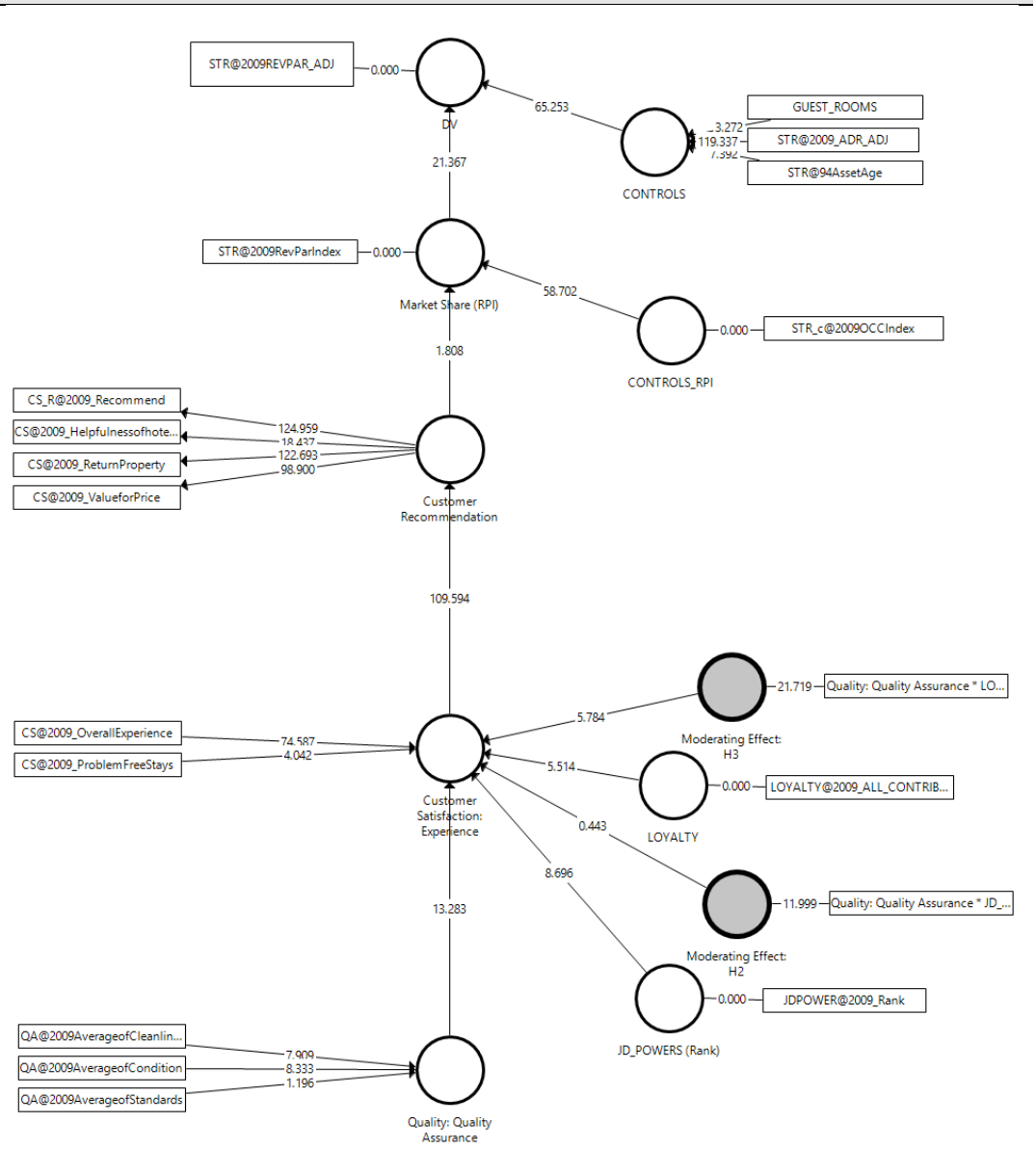
Bootstrapping Outputs (PLS-SEM)

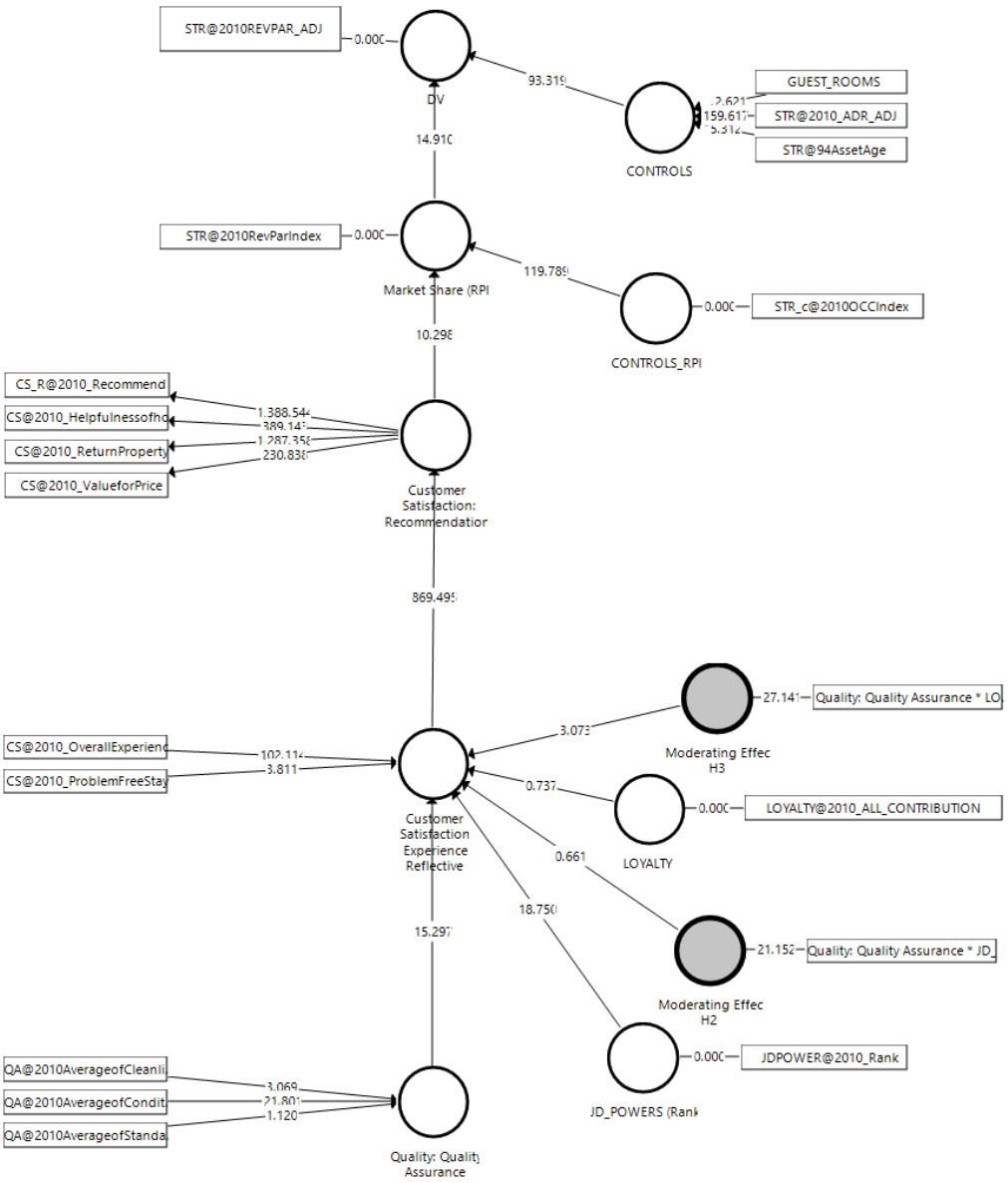
Additional diagrams at Brand Group level available upon request for Dissertation Committee review at the time of defense.

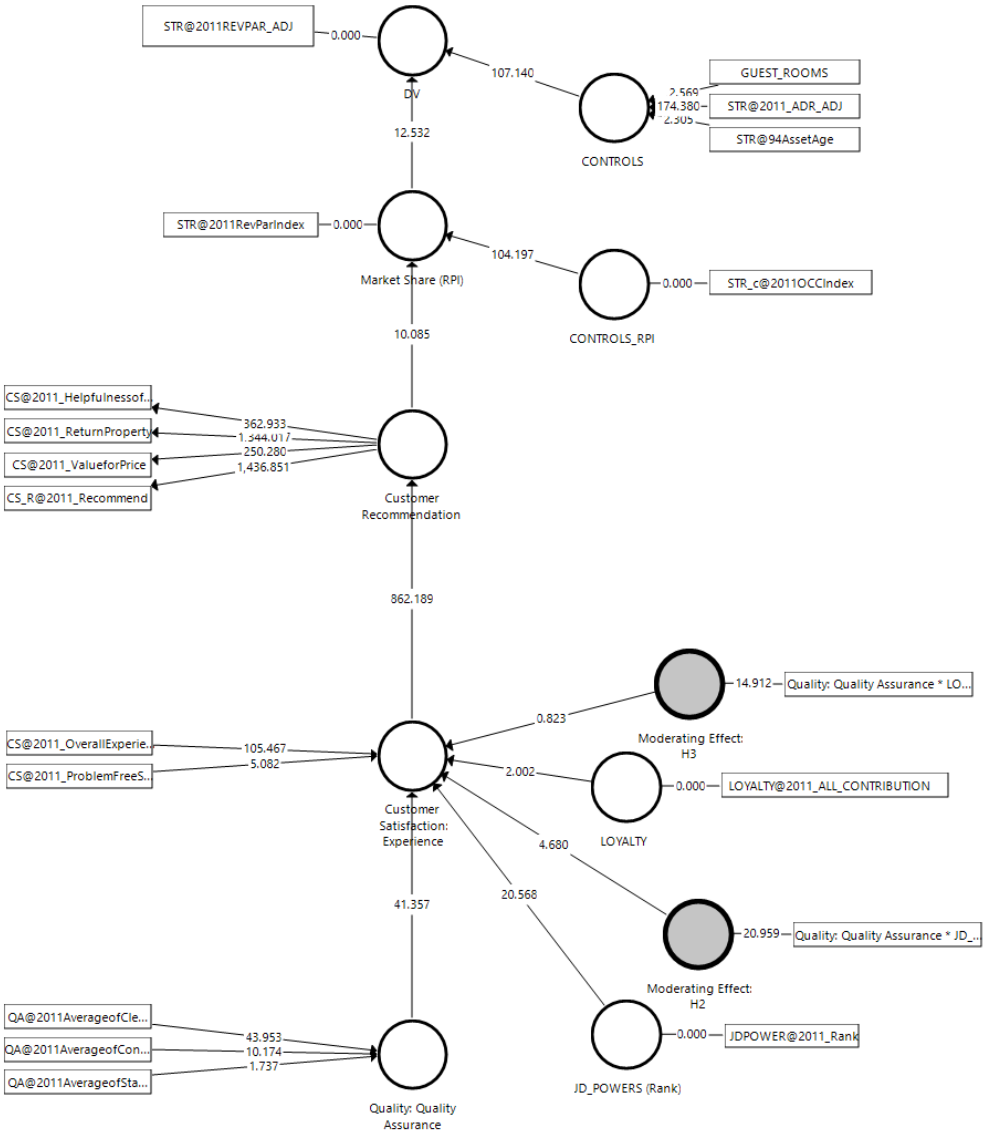
YEAR	Brand	Bootstrapping Model
2006	Complete Data Set with Loyalty & Brand Signaling (JD Powers)	

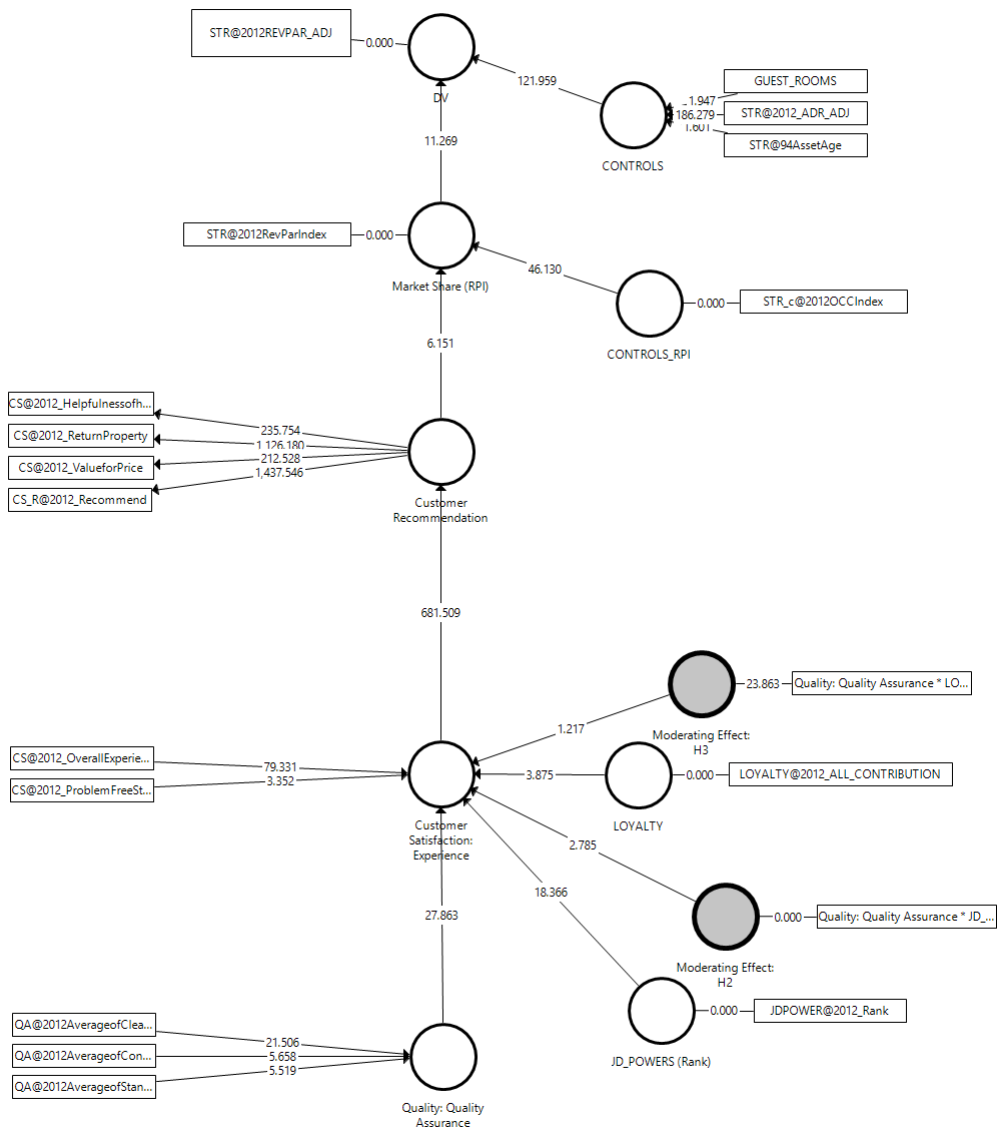
YEAR	Brand	Bootstrapping Model
2007	Complete Data Set with Loyalty & Brand Signaling (JD Powers)	

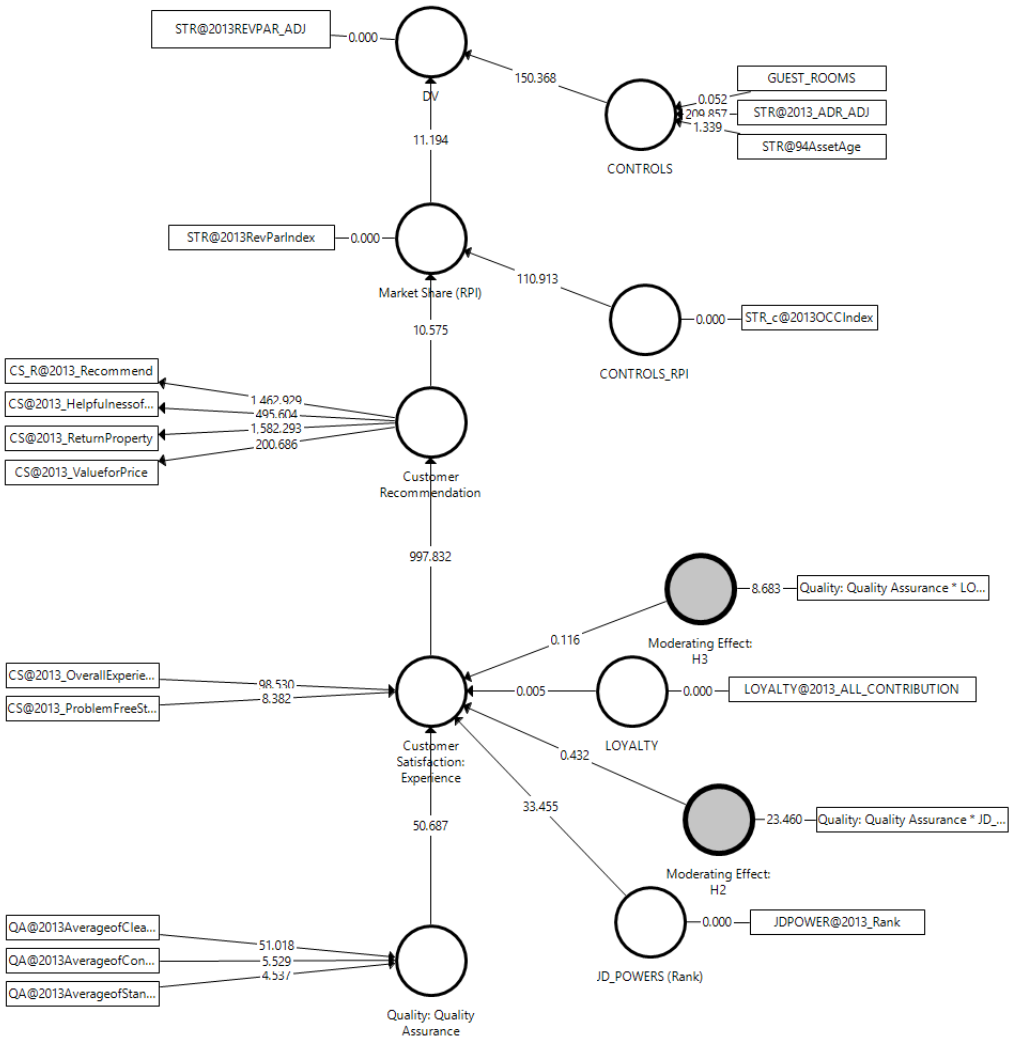
YEAR	Brand	Bootstrapping Model
2008	Complete Data Set with Loyalty & Brand Signaling (JD Powers)	

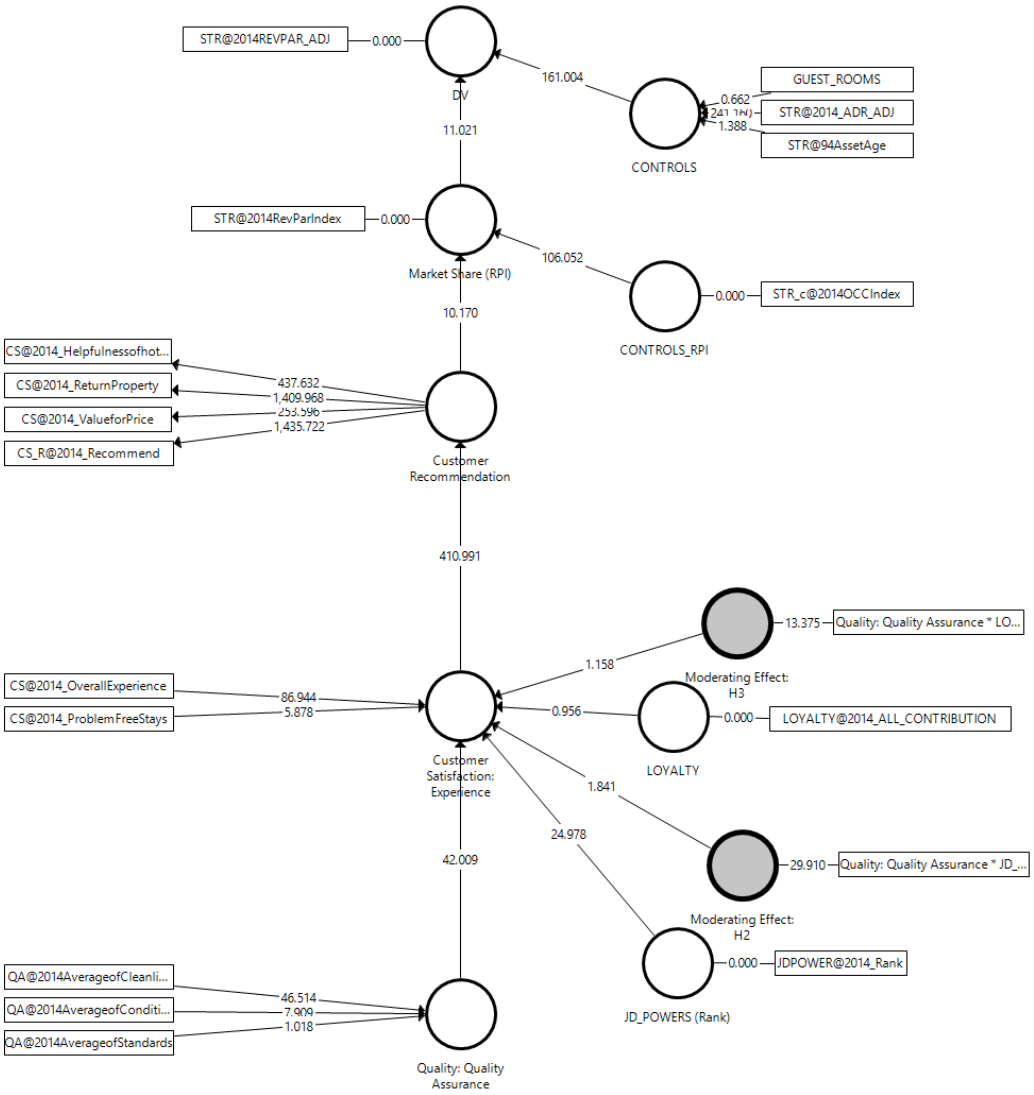
YEAR	Brand	Bootstrapping Model
2009	Complete Data Set with Loyalty & Brand Signaling (JD Powers)	

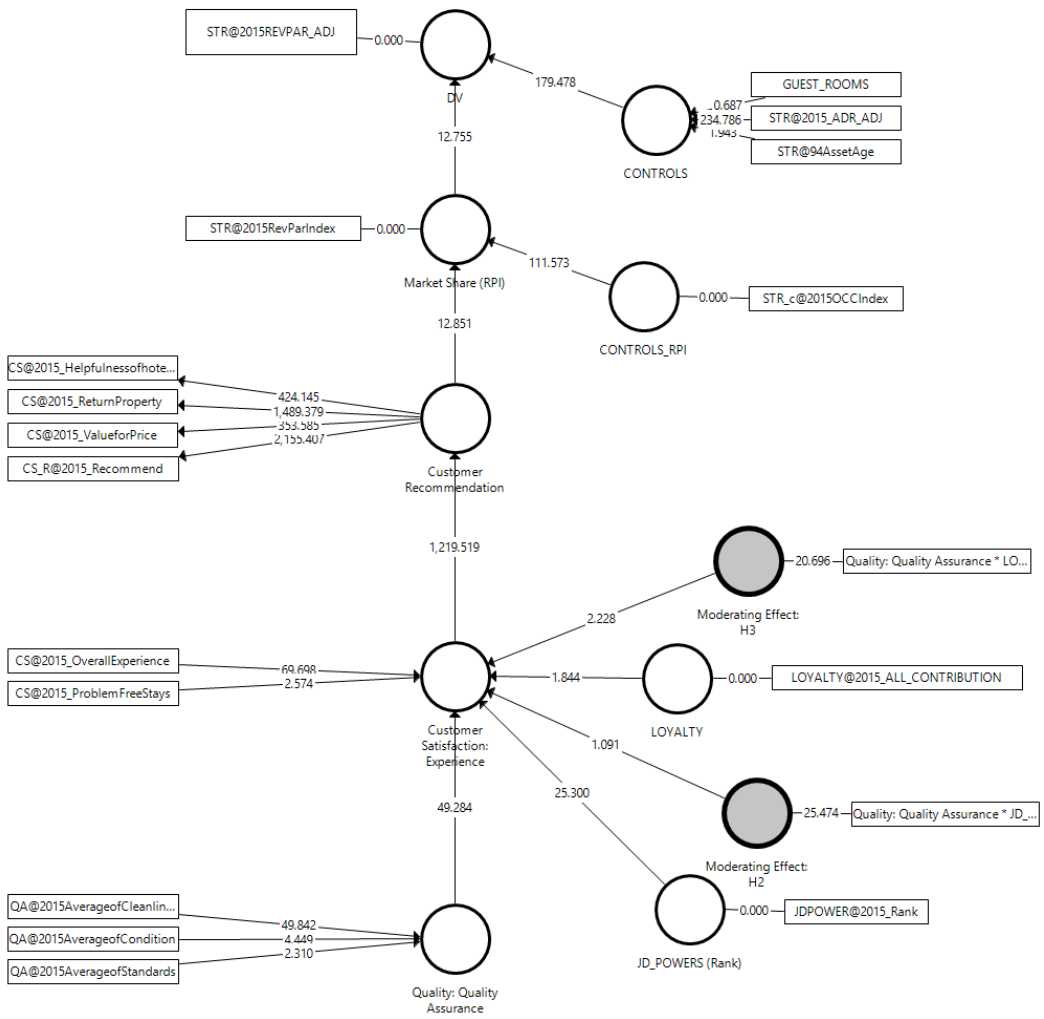
YEAR	Brand	Bootstrapping Model
2010	Complete Data Set with Loyalty & Brand Signaling (JD Powers)	

YEAR	Brand	Bootstrapping Model
2011	Complete Data Set with Loyalty & Brand Signaling (JD Powers)	

YEAR	Brand	Bootstrapping Model
2012	Complete Data Set with Loyalty & Brand Signaling (JD Powers)	

YEAR	Brand	Bootstrapping Model
2013	Complete Data Set with Loyalty & Brand Signaling (JD Powers)	

YEAR	Brand	Bootstrapping Model
2014	Complete Data Set with Loyalty & Brand Signaling (JD Powers)	

YEAR	Brand	Bootstrapping Model
2015	Complete Data Set with Loyalty & Brand Signaling (JD Powers)	

Discriminant Validity: HTMT

Total Counts of Variables Reviewed on Discriminant Validity Test for Heterotrait-Monotrait Ratio (HTMT)

	Count of CONTROLS_RPI	Count of Customer Recommendation	Count of DV	Count of JD_POWERS (RANK)	Count of Loyalty	Count of Market Share (RPI)	Count of Moderating Effect: H2	Count of Moderating Effect: H3
CONTROLS_RPI	14	14	14			14		
Customer Recommendation	72	72	72	9	7	72	7	58
Customer Satisfaction: Recommendation	8	8	8	1	1	8	1	8
DV	80	80	80	10	8	80	8	66
JD_POWERS (Rank)	10	10	10	10	8	10	8	10
LOYALTY	64	64	64	8	8	64	8	64
Market Share (RPI)	80	80	80	10	8	80	8	66
Moderating Effect: H2	8	8	8	8	8	8	8	8
Moderating Effect: H3	66	66	66	10	8	66	8	66
Grand Total	**402**	**402**	**402**	**66**	**56**	**402**	**56**	**346**

Actual Data for ALL Tables on Discriminant Validity Test for Heterotrait-Monotrait Ratio (HTMT)

YEAR	BRAND GROUP	VARIABLE	CONTROLS_RPI	Customer Recommendation	DV	JD_POWERS (RANK)	Loyalty	Market Share (RPI)	Moderating Effect: H2	Moderating Effect: H3
2006	Complete Data Set	CONTROLS_RPI								
2006	Complete Data Set	Customer Recommendation	0.057							

2006	**Complete Data Set**	**DV**	**0.276**	**0.339**						
2006	**Complete Data Set**	**Market Share (RPI)**	**0.848**	**0.144**	**0.262**					
2007	**Complete Data Set**	**CONTROLS_RPI**								
2007	**Complete Data Set**	**Customer Recommendation**	**0.056**							
2007	**Complete Data Set**	**DV**	**0.267**	**0.339**						
2007	**Complete Data Set**	**Market Share (RPI)**	0.856	**0.142**	**0.236**					
2008	**Complete Data Set**	**Customer Recommendation**	**0.045**							
2008	**Complete Data Set**	**DV**	**0.351**	**0.360**						
2008	**Complete Data Set**	**LOYALTY**	**0.270**	**0.040**	**0.203**					
2008	**Complete Data Set**	**Market Share (RPI)**	0.883	**0.088**	**0.314**			**0.246**		
2008	**Complete Data Set**	**Moderating Effect: H3**	**0.065**	**0.048**	**0.020**			**0.592**		**0.047**
2009	**Complete Data Set**	**Customer Recommendation**	**0.105**							
2009	**Complete Data Set**	**DV**	**0.390**	**0.261**						
2009	**Complete Data Set**	**LOYALTY**	**0.523**	**0.042**	**0.481**					
2009	**Complete Data Set**	**Market Share (RPI)**	**0.778**	**0.063**	**0.413**			**0.511**		
2009	**Complete Data Set**	**Moderating Effect: H3**	**0.131**	**0.036**	**0.042**			**0.070**		**0.107**
2010	**Complete Data Set**	**Customer Satisfaction: Recommendation**	**0.037**							
2010	**Complete Data Set**	**DV**	**0.274**	**0.292**						
2010	**Complete Data Set**	**LOYALTY**	**0.382**	**0.133**	**0.405**					
2010	**Complete Data Set**	**Market Share (RPI)**	**0.847**	**0.112**	**0.251**			**0.375**		
2010	**Complete Data Set**	**Moderating Effect: H3**	**0.140**	**0.018**	**0.060**			**0.109**		**0.114**
2011	**Complete Data Set**	**Customer Recommendation**	**0.096**							

2011	Complete Data Set	DV	0.202	0.279						
2011	Complete Data Set	LOYALTY	0.340	0.229	0.347					
2011	Complete Data Set	Market Share (RPI)	0.840	0.180	0.181			0.337		
2011	Complete Data Set	Moderating Effect: H3	0.019	0.117	0.017			0.076		0.049
2012	Complete Data Set	Customer Recommendation	0.143							
2012	Complete Data Set	DV	0.153	0.274						
2012	Complete Data Set	LOYALTY	0.342	0.258	0.330					
2012	Complete Data Set	Market Share (RPI)	0.739	0.174	0.159			0.338		
2012	Complete Data Set	Moderating Effect: H3	0.008	0.115	0.006			0.050		0.036
2013	Complete Data Set	Customer Recommendation	0.117							
2013	Complete Data Set	DV	0.129	0.280						
2013	Complete Data Set	LOYALTY	0.356	0.228	0.313					
2013	Complete Data Set	Market Share (RPI)	0.829	0.196	0.097			0.326		
2013	Complete Data Set	Moderating Effect: H3	0.042	0.136	0.012			0.032		0.001
2014	Complete Data Set	Customer Recommendation	0.147							
2014	Complete Data Set	DV	0.114	0.279						
2014	Complete Data Set	LOYALTY	0.376	0.217	0.269					
2014	Complete Data Set	Market Share (RPI)	0.837	0.221	0.076			0.346		
2014	Complete Data Set	Moderating Effect: H3	0.018	0.114	0.010			0.084		0.025
2015	Complete Data Set	Customer Recommendation	0.133							
2015	Complete Data Set	DV	0.122	0.279						
2015	Complete Data Set	LOYALTY	0.428	0.169	0.315					
2015	Complete Data Set	Market Share (RPI)	0.837	0.221	0.069			0.382		

2015	**Complete Data Set**	**Moderating Effect: H3**	**0.013**	**0.068**	**0.015**			**0.033**		**0.023**
2006	**Complete Data Set (Incl. JD Power)**	**Customer Recommendation**	**0.057**							
2006	**Complete Data Set (Incl. JD Power)**	**DV**	**0.276**	**0.339**						
2006	**Complete Data Set (Incl. JD Power)**	**JD_POWERS (Rank)**	**0.118**	**0.342**	**0.052**					
2006	**Complete Data Set (Incl. JD Power)**	**Market Share (RPI)**	**0.848**	**0.144**	**0.262**	**0.263**				
2006	**Complete Data Set (Incl. JD Power)**	**Moderating Effect: H3**	**0.033**	**0.163**	**0.035**	**0.098**		**0.035**		
2007	**Complete Data Set (Incl. JD Power)**	**Customer Recommendation**	**0.056**							
2007	**Complete Data Set (Incl. JD Power)**	**DV**	**0.267**	**0.331**						
2007	**Complete Data Set (Incl. JD Power)**	**JD_POWERS (RANK)**	**0.141**	**0.488**	**0.121**					
2007	**Complete Data Set (Incl. JD Power)**	**Market Share (RPI)**	0.856	**0.121**	**0.236**	**0.277**				
2007	**Complete Data Set (Incl. JD Power)**	**Moderating Effect: H3**	**0.028**	**0.191**	**0.032**	**0.138**		**0.020**		
2008	**Complete Data Set (Incl. JD Power)**	**Customer Recommendation**	**0.071**							
2008	**Complete Data Set (Incl. JD Power)**	**DV**	**0.351**	**0.364**						
2008	**Complete Data Set (Incl. JD Power)**	**JD_POWERS (Rank)**	**0.062**	**0.447**	**0.051**					
2008	**Complete Data Set (Incl. JD Power)**	**LOYALTY**	**0.270**	**0.063**	**0.203**	**0.175**				

2008	**Complete Data Set (Incl. JD Power)**	**Market Share (RPI)**	0.883	**0.073**	**0.314**	**0.182**	**0.246**			
2008	**Complete Data Set (Incl. JD Power)**	**Moderating Effect: H2**	**0.028**	**0.123**	**0.004**	**0.084**	**0.042**	**0.043**		
2008	**Complete Data Set (Incl. JD Power)**	**Moderating Effect: H3**	**0.065**	**0.074**	**0.020**	**0.035**	**0.594**	**0.047**	**0.230**	
2009	**Complete Data Set (Incl. JD Power)**	**Customer Recommendation**	**0.104**							
2009	**Complete Data Set (Incl. JD Power)**	**DV**	**0.390**	**0.259**						
2009	**Complete Data Set (Incl. JD Power)**	**JD_POWERS (Rank)**	**0.070**	**0.232**	**0.044**					
2009	**Complete Data Set (Incl. JD Power)**	**LOYALTY**	**0.523**	**0.047**	**0.481**	**0.295**				
2009	**Complete Data Set (Incl. JD Power)**	**Market Share (RPI)**	**0.778**	**0.058**	**0.413**	**0.203**	**0.511**			
2009	**Complete Data Set (Incl. JD Power)**	**Moderating Effect: H2**	**0.009**	**0.062**	**0.032**	**0.119**	**0.063**	**0.020**		
2009	**Complete Data Set (Incl. JD Power)**	**Moderating Effect: H3**	**0.130**	**0.032**	**0.042**	**0.044**	**0.069**	**0.106**	**0.244**	
2010	**Complete Data Set (Incl. JD Power)**	**Customer Satisfaction: Recommendation**	**0.037**							
2010	**Complete Data Set (Incl. JD Power)**	**DV**	**0.274**	**0.292**						
2010	**Complete Data Set (Incl. JD Power)**	**JD_POWERS (Rank)**	**0.132**	**0.371**	**0.025**					
2010	**Complete Data Set (Incl. JD Power)**	**LOYALTY**	**0.382**	**0.133**	**0.405**	**0.363**				
2010	**Complete Data Set**	**Market Share (RPI)**	**0.847**	**0.112**	**0.251**	**0.264**	**0.375**			

	(Incl. JD Power)									
2010	**Complete Data Set (Incl. JD Power)**	**Moderating Effect: H2**	**0.042**	**0.088**	**0.027**	**0.198**	**0.061**	**0.084**		
2010	**Complete Data Set (Incl. JD Power)**	**Moderating Effect: H3**	**0.140**	**0.018**	**0.060**	**0.053**	**0.110**	**0.114**	**0.300**	
2011	**Complete Data Set (Incl. JD Power)**	**Customer Recommendation**	**0.096**							
2011	**Complete Data Set (Incl. JD Power)**	**DV**	**0.202**	**0.279**						
2011	**Complete Data Set (Incl. JD Power)**	**JD_POWERS (Rank)**	**0.162**	**0.433**	**0.091**					
2011	**Complete Data Set (Incl. JD Power)**	**LOYALTY**	**0.340**	**0.229**	**0.347**	**0.343**				
2011	**Complete Data Set (Incl. JD Power)**	**Market Share (RPI)**	**0.840**	**0.180**	**0.181**	**0.277**	**0.337**			
2011	**Complete Data Set (Incl. JD Power)**	**Moderating Effect: H2**	**0.047**	**0.094**	**0.009**	**0.266**	**0.156**	**0.094**		
2011	**Complete Data Set (Incl. JD Power)**	**Moderating Effect: H3**	**0.019**	**0.118**	**0.017**	**0.132**	**0.077**	**0.049**	**0.506**	
2012	**Complete Data Set (Incl. JD Power)**	**Customer Recommendation**	**0.143**							
2012	**Complete Data Set (Incl. JD Power)**	**DV**	**0.153**	**0.274**						
2012	**Complete Data Set (Incl. JD Power)**	**JD_POWERS (Rank)**	**0.120**	**0.432**	**0.075**					
2012	**Complete Data Set (Incl. JD Power)**	**LOYALTY**	**0.342**	**0.258**	**0.330**	**0.393**				
2012	**Complete Data Set (Incl. JD Power)**	**Market Share (RPI)**	**0.739**	**0.174**	**0.159**	**0.222**	**0.338**			

2012	Complete Data Set (Incl. JD Power)	Moderating Effect: H2	0.081	0.155	0.015	0.243	0.157	0.092		
2012	Complete Data Set (Incl. JD Power)	Moderating Effect: H3	0.009	0.116	0.006	0.126	0.051	0.037	0.473	
2013	Complete Data Set (Incl. JD Power)	Customer Recommendation	0.117							
2013	Complete Data Set (Incl. JD Power)	DV	0.129	0.280						
2013	Complete Data Set (Incl. JD Power)	JD_POWERS (Rank)	0.112	0.524	0.209					
2013	Complete Data Set (Incl. JD Power)	LOYALTY	0.356	0.228	0.313	0.372				
2013	Complete Data Set (Incl. JD Power)	Market Share (RPI)	0.829	0.196	0.097	0.211	0.326			
2013	Complete Data Set (Incl. JD Power)	Moderating Effect: H2	0.039	0.122	0.007	0.179	0.133	0.074		
2013	Complete Data Set (Incl. JD Power)	Moderating Effect: H3	0.041	0.136	0.011	0.117	0.033	0.001	0.454	
2014	Complete Data Set (Incl. JD Power)	Customer Recommendation	0.147							
2014	Complete Data Set (Incl. JD Power)	DV	0.114	0.279						
2014	Complete Data Set (Incl. JD Power)	JD_POWERS (Rank)	0.105	0.470	0.195					
2014	Complete Data Set (Incl. JD Power)	LOYALTY	0.376	0.217	0.269	0.372				
2014	Complete Data Set (Incl. JD Power)	Market Share (RPI)	0.837	0.221	0.076	0.184	0.346			
2014	Complete Data Set (Incl. JD Power)	Moderating Effect: H2	0.043	0.173	0.013	0.194	0.127	0.070		

2014	Complete Data Set (Incl. JD Power)	Moderating Effect: H3	0.019	0.114	0.009	0.108	0.086	0.026	0.430	
2015	Complete Data Set (Incl. JD Power)	Customer Recommendation	0.133							
2015	Complete Data Set (Incl. JD Power)	DV	0.122	0.279						
2015	Complete Data Set (Incl. JD Power)	JD_POWERS (Rank)	0.103	0.401	0.116					
2015	Complete Data Set (Incl. JD Power)	LOYALTY	0.428	0.169	0.315	0.355				
2015	Complete Data Set (Incl. JD Power)	Market Share (RPI)	0.837	0.221	0.069	0.178	0.382			
2015	Complete Data Set (Incl. JD Power)	Moderating Effect: H2	0.037	0.106	0.024	0.189	0.087	0.065		
2015	Complete Data Set (Incl. JD Power)	Moderating Effect: H3	0.013	0.068	0.015	0.082	0.033	0.023	0.301	
2006	Upscale Class, Full Service, Conversion Brand	CONTROLS_RPI								
2006	Upscale Class, Full Service, Conversion Brand	Customer Recommendation	0.060							
2006	Upscale Class, Full Service, Conversion Brand	DV	0.451	0.131						
2006	Upscale Class, Full Service, Conversion Brand	Market Share (RPI)	0.829	0.202	0.496					
2007	Upscale Class, Full Service, Conversion Brand	CONTROLS_RPI								
2007	Upscale Class, Full Service,	Customer Recommendation	0.021							

	Conversion Brand									
2007	**Upscale Class, Full Service, Conversion Brand**	**DV**	**0.443**	**0.146**						
2007	**Upscale Class, Full Service, Conversion Brand**	**Market Share (RPI)**	**0.823**	**0.196**	**0.487**					
2008	**Upscale Class, Full Service, Conversion Brand**	**Customer Recommendation**	**0.163**							
2008	**Upscale Class, Full Service, Conversion Brand**	**DV**	**0.472**	**0.338**						
2008	**Upscale Class, Full Service, Conversion Brand**	**LOYALTY**	**0.415**	**0.092**	**0.568**					
2008	**Upscale Class, Full Service, Conversion Brand**	**Market Share (RPI)**	0.858	**0.067**	**0.502**			**0.465**		
2008	**Upscale Class, Full Service, Conversion Brand**	**Moderating Effect: H3**	**0.022**	**0.219**	**0.103**			**0.058**		**0.011**
2009	**Upscale Class, Full Service, Conversion Brand**	**Customer Recommendation**	**0.129**							
2009	**Upscale Class, Full Service, Conversion Brand**	**DV**	**0.421**	**0.262**						
2009	**Upscale Class, Full Service, Conversion Brand**	**LOYALTY**	**0.316**	**0.074**	**0.580**					
2009	**Upscale Class, Full Service, Conversion Brand**	**Market Share (RPI)**	**0.787**	**0.099**	**0.545**			**0.456**		
2009	**Upscale Class, Full Service,**	**Moderating Effect: H3**	**0.114**	**0.075**	**0.142**			**0.044**		**0.076**

	Conversion Brand									
2010	**Upscale Class, Full Service, Conversion Brand**	**Customer Satisfaction: Recommendation**	**0.026**							
2010	**Upscale Class, Full Service, Conversion Brand**	**DV**	**0.405**	**0.182**						
2010	**Upscale Class, Full Service, Conversion Brand**	**LOYALTY**	**0.245**	**0.216**	**0.459**					
2010	**Upscale Class, Full Service, Conversion Brand**	**Market Share (RPI)**	**0.824**	**0.139**	**0.458**			**0.345**		
2010	**Upscale Class, Full Service, Conversion Brand**	**Moderating Effect: H3**	**0.079**	**0.076**	**0.147**			**0.060**		**0.057**
2011	**Upscale Class, Full Service, Conversion Brand**	**Customer Recommendation**	**0.063**							
2011	**Upscale Class, Full Service, Conversion Brand**	**DV**	**0.379**	**0.137**						
2011	**Upscale Class, Full Service, Conversion Brand**	**LOYALTY**	**0.261**	**0.344**	**0.454**					
2011	**Upscale Class, Full Service, Conversion Brand**	**Market Share (RPI)**	**0.825**	**0.263**	**0.413**			**0.366**		
2011	**Upscale Class, Full Service, Conversion Brand**	**Moderating Effect: H3**	**0.073**	**0.041**	**0.035**			**0.325**		**0.045**
2012	**Upscale Class, Full Service, Conversion Brand**	**Customer Recommendation**	**0.197**							
2012	**Upscale Class, Full Service,**	**DV**	**0.331**	**0.125**						

	Conversion Brand									
2012	**Upscale Class, Full Service, Conversion Brand**	**LOYALTY**	**0.312**	**0.308**	**0.454**					
2012	**Upscale Class, Full Service, Conversion Brand**	**Market Share (RPI)**	**0.816**	**0.292**	**0.399**			**0.394**		
2012	**Upscale Class, Full Service, Conversion Brand**	**Moderating Effect: H3**	**0.147**	**0.104**	**0.004**			**0.350**		**0.103**
2013	**Upscale Class, Full Service, Conversion Brand**	**Customer Recommendation**	**0.053**							
2013	**Upscale Class, Full Service, Conversion Brand**	**DV**	**0.307**	**0.211**						
2013	**Upscale Class, Full Service, Conversion Brand**	**LOYALTY**	**0.363**	**0.199**	**0.442**					
2013	**Upscale Class, Full Service, Conversion Brand**	**Market Share (RPI)**	**0.811**	**0.234**	**0.301**			**0.377**		
2013	**Upscale Class, Full Service, Conversion Brand**	**Moderating Effect: H3**	**0.114**	**0.116**	**0.074**			**0.133**		**0.097**
2014	**Upscale Class, Full Service, Conversion Brand**	**Customer Recommendation**	**0.036**							
2014	**Upscale Class, Full Service, Conversion Brand**	**DV**	**0.305**	**0.207**						
2014	**Upscale Class, Full Service, Conversion Brand**	**LOYALTY**	**0.334**	**0.129**	**0.399**					
2014	**Upscale Class, Full Service,**	**Market Share (RPI)**	**0.806**	**0.213**	**0.279**			**0.382**		

	Conversion Brand									
2014	**Upscale Class, Full Service, Conversion Brand**	**Moderating Effect: H3**	**0.180**	**0.019**	**0.016**			**0.063**		**0.137**
2015	**Upscale Class, Full Service, Conversion Brand**	**Customer Recommendation**	**0.059**							
2015	**Upscale Class, Full Service, Conversion Brand**	**DV**	**0.307**	**0.178**						
2015	**Upscale Class, Full Service, Conversion Brand**	**LOYALTY**	**0.482**	**0.088**	**0.466**					
2015	**Upscale Class, Full Service, Conversion Brand**	**Market Share (RPI)**	**0.796**	**0.234**	**0.253**			**0.465**		
2015	**Upscale Class, Full Service, Conversion Brand**	**Moderating Effect: H3**	**0.233**	**0.075**	**0.102**			**0.188**		**0.175**
2006	**Upper Upscale Class, All Suites**	**CONTROLS_RPI**								
2006	**Upper Upscale Class, All Suites**	**Customer Recommendation**	**0.041**							
2006	**Upper Upscale Class, All Suites**	**DV**	**0.345**	**0.136**						
2006	**Upper Upscale Class, All Suites**	**Market Share (RPI)**	**0.794**	**0.197**	**0.247**					
2007	**Upper Upscale Class, All Suites**	**CONTROLS_RPI**								
2007	**Upper Upscale Class, All Suites**	**Customer Recommendation**	**0.167**							
2007	**Upper Upscale Class, All Suites**	**DV**	**0.208**	**0.125**						

2007	Upper Upscale Class, All Suites	Market Share (RPI)	0.744	0.307	0.170					
2008	Upper Upscale Class, All Suites	Customer Recommendation	0.095							
2008	Upper Upscale Class, All Suites	DV	0.430	0.100						
2008	Upper Upscale Class, All Suites	LOYALTY	0.622	0.073	0.613					
2008	Upper Upscale Class, All Suites	Market Share (RPI)	0.834	0.196	0.399			0.517		
2008	Upper Upscale Class, All Suites	Moderating Effect: H3	0.147	0.317	0.043			0.123		0.159
2009	Upper Upscale Class, All Suites	Customer Recommendation	0.077							
2009	Upper Upscale Class, All Suites	DV	0.365	0.150						
2009	Upper Upscale Class, All Suites	LOYALTY	0.506	0.201	0.644					
2009	Upper Upscale Class, All Suites	Market Share (RPI)	0.790	0.104	0.463			0.449		
2009	Upper Upscale Class, All Suites	Moderating Effect: H3	0.075	0.085	0.076			0.139		0.072
2010	Upper Upscale Class, All Suites	Customer Satisfaction: Recommendation	0.069							
2010	Upper Upscale Class, All Suites	DV	0.298	0.142						
2010	Upper Upscale Class, All Suites	LOYALTY	0.404	0.087	0.551					
2010	Upper Upscale	Market Share (RPI)	0.839	0.156	0.326			0.324		

	Class, All Suites									
2010	**Upper Upscale Class, All Suites**	**Moderating Effect: H3**	**0.002**	**0.097**	**0.008**			**0.135**		**0.004**
2011	**Upper Upscale Class, All Suites**	**Customer Recommendation**	**0.154**							
2011	**Upper Upscale Class, All Suites**	**DV**	**0.151**	**0.113**						
2011	**Upper Upscale Class, All Suites**	**LOYALTY**	**0.242**	**0.077**	**0.451**					
2011	**Upper Upscale Class, All Suites**	**Market Share (RPI)**	**0.783**	**0.264**	**0.205**			**0.162**		
2011	**Upper Upscale Class, All Suites**	**Moderating Effect: H3**	**0.051**	**0.103**	**0.092**			**0.223**		**0.077**
2012	**Upper Upscale Class, All Suites**	**Customer Recommendation**	**0.205**							
2012	**Upper Upscale Class, All Suites**	**DV**	**0.058**	**0.131**						
2012	**Upper Upscale Class, All Suites**	**LOYALTY**	**0.149**	**0.021**	**0.361**					
2012	**Upper Upscale Class, All Suites**	**Market Share (RPI)**	**0.630**	**0.228**	**0.169**			**0.123**		
2012	**Upper Upscale Class, All Suites**	**Moderating Effect: H3**	**0.087**	**0.118**	**0.096**			**0.268**		**0.003**
2013	**Upper Upscale Class, All Suites**	**Customer Recommendation**	**0.208**							
2013	**Upper Upscale Class, All Suites**	**DV**	**0.076**	**0.102**						
2013	**Upper Upscale Class, All Suites**	**LOYALTY**	**0.228**	**0.048**	**0.315**					

2013	Upper Upscale Class, All Suites	Market Share (RPI)	0.784	0.285	0.146			0.171		
2013	Upper Upscale Class, All Suites	Moderating Effect: H3	0.054	0.087	0.025			0.242		0.065
2014	Upper Upscale Class, All Suites	Customer Recommendation	0.277							
2014	Upper Upscale Class, All Suites	DV	0.004	0.107						
2014	Upper Upscale Class, All Suites	LOYALTY	0.188	0.155	0.298					
2014	Upper Upscale Class, All Suites	Market Share (RPI)	0.773	0.329	0.072			0.128		
2014	Upper Upscale Class, All Suites	Moderating Effect: H3	0.147	0.181	0.180			0.064		0.147
2015	Upper Upscale Class, All Suites	Customer Recommendation	0.278							
2015	Upper Upscale Class, All Suites	DV	0.159	0.117						
2015	Upper Upscale Class, All Suites	LOYALTY	0.331	0.128	0.411					
2015	Upper Upscale Class, All Suites	Market Share (RPI)	0.793	0.379	0.147			0.226		
2015	Upper Upscale Class, All Suites	Moderating Effect: H3	0.182	0.184	0.227			0.041		0.143
2006	Upscale Class, Limited Service	CONTROLS_RPI								
2006	Upscale Class, Limited Service	Customer Recommendation	0.055							
2006	Upscale Class, Limited Service	DV	0.540	0.212						

2006	**Upscale Class, Limited Service**	**Market Share (RPI)**	**0.836**	**0.076**	**0.429**					
2007	**Upscale Class, Limited Service**	**CONTROLS_RPI**								
2007	**Upscale Class, Limited Service**	**Customer Recommendation**	**0.065**							
2007	**Upscale Class, Limited Service**	**DV**	**0.506**	**0.303**						
2007	**Upscale Class, Limited Service**	**Market Share (RPI)**	0.858	**0.105**	**0.408**					
2008	**Upscale Class, Limited Service**	**Customer Recommendation**	**0.153**							
2008	**Upscale Class, Limited Service**	**DV**	**0.521**	**0.331**						
2008	**Upscale Class, Limited Service**	**LOYALTY**	**0.615**	**0.141**	**0.623**					
2008	**Upscale Class, Limited Service**	**Market Share (RPI)**	**0.927**	**0.062**	**0.441**			**0.536**		
2008	**Upscale Class, Limited Service**	**Moderating Effect: H3**	**0.051**	**0.054**	**0.068**			**0.100**		**0.033**
2009	**Upscale Class, Limited Service**	**Customer Recommendation**	**0.240**							
2009	**Upscale Class, Limited Service**	**DV**	**0.552**	**0.359**						
2009	**Upscale Class, Limited Service**	**LOYALTY**	**0.594**	**0.162**	**0.623**					
2009	**Upscale Class, Limited Service**	**Market Share (RPI)**	**0.801**	**0.120**	**0.493**			**0.555**		
2009	**Upscale Class, Limited Service**	**Moderating Effect: H3**	**0.113**	**0.017**	**0.018**			**0.045**		**0.079**

2010	Upscale Class, Limited Service	Customer Satisfaction: Recommendation	0.117							
2010	Upscale Class, Limited Service	DV	0.290	0.282						
2010	Upscale Class, Limited Service	LOYALTY	0.315	0.053	0.451					
2010	Upscale Class, Limited Service	Market Share (RPI)	0.826	0.079	0.211			0.264		
2010	Upscale Class, Limited Service	Moderating Effect: H3	0.073	0.050	0.015			0.101		0.084
2011	Upscale Class, Limited Service	Customer Recommendation	0.054							
2011	Upscale Class, Limited Service	DV	0.320	0.257						
2011	Upscale Class, Limited Service	LOYALTY	0.385	0.076	0.431					
2011	Upscale Class, Limited Service	Market Share (RPI)	0.813	0.138	0.220			0.330		
2011	Upscale Class, Limited Service	Moderating Effect: H3	0.084	0.056	0.087			0.081		0.000
2012	Upscale Class, Limited Service	Customer Recommendation	0.060							
2012	Upscale Class, Limited Service	DV	0.246	0.293						
2012	Upscale Class, Limited Service	LOYALTY	0.400	0.074	0.396					
2012	Upscale Class, Limited Service	Market Share (RPI)	0.695	0.099	0.162			0.290		
2012	Upscale Class,	Moderating Effect: H3	0.201	0.049	0.114			0.074		0.119

	Limited Service									
2013	**Upscale Class, Limited Service**	**Customer Recommendation**	**0.082**							
2013	**Upscale Class, Limited Service**	**DV**	**0.153**	**0.252**						
2013	**Upscale Class, Limited Service**	**LOYALTY**	**0.346**	**0.055**	**0.326**					
2013	**Upscale Class, Limited Service**	**Market Share (RPI)**	**0.815**	**0.172**	**0.083**			**0.287**		
2013	**Upscale Class, Limited Service**	**Moderating Effect: H3**	**0.182**	**0.083**	**0.065**			**0.110**		**0.100**
2014	**Upscale Class, Limited Service**	**Customer Recommendation**	**0.114**							
2014	**Upscale Class, Limited Service**	**DV**	**0.202**	**0.304**						
2014	**Upscale Class, Limited Service**	**LOYALTY**	**0.474**	**0.046**	**0.249**					
2014	**Upscale Class, Limited Service**	**Market Share (RPI)**	**0.849**	**0.223**	**0.104**			**0.420**		
2014	**Upscale Class, Limited Service**	**Moderating Effect: H3**	**0.084**	**0.009**	**0.126**			**0.018**		**0.054**
2015	**Upscale Class, Limited Service**	**Customer Recommendation**	**0.118**							
2015	**Upscale Class, Limited Service**	**DV**	**0.123**	**0.272**						
2015	**Upscale Class, Limited Service**	**LOYALTY**	**0.419**	**0.088**	**0.234**					
2015	**Upscale Class, Limited Service**	**Market Share (RPI)**	**0.837**	**0.234**	**0.019**			**0.357**		

2015	Upscale Class, Limited Service	Moderating Effect: H3	0.231	0.068	0.131			0.199		0.127
2006	Upper Upscale Class, Full Service	CONTROLS_RPI								
2006	Upper Upscale Class, Full Service	Customer Recommendation	0.037							
2006	Upper Upscale Class, Full Service	DV	0.303	0.141						
2006	Upper Upscale Class, Full Service	Market Share (RPI)	0.780	0.163	0.360					
2007	Upper Upscale Class, Full Service	CONTROLS_RPI								
2007	Upper Upscale Class, Full Service	Customer Recommendation	0.122							
2007	Upper Upscale Class, Full Service	DV	0.236	0.157						
2007	Upper Upscale Class, Full Service	Market Share (RPI)	0.774	0.280	0.262					
2008	Upper Upscale Class, Full Service	Customer Recommendation	0.050							
2008	Upper Upscale Class, Full Service	DV	0.278	0.275						
2008	Upper Upscale Class, Full Service	LOYALTY	0.461	0.111	0.530					
2008	Upper Upscale Class, Full Service	Market Share (RPI)	0.797	0.211	0.300			0.483		
2008	Upper Upscale Class, Full Service	Moderating Effect: H3	0.037	0.183	0.032			0.056		0.034
2009	Upper Upscale Class, Full Service	Customer Recommendation	0.035							

2009	Upper Upscale Class, Full Service	DV	0.323	0.205						
2009	Upper Upscale Class, Full Service	LOYALTY	0.453	0.044	0.593					
2009	Upper Upscale Class, Full Service	Market Share (RPI)	0.728	0.064	0.430			0.552		
2009	Upper Upscale Class, Full Service	Moderating Effect: H3	0.001	0.050	0.033			0.035		0.020
2010	Upper Upscale Class, Full Service	Customer Satisfaction: Recommendation	0.124							
2010	Upper Upscale Class, Full Service	DV	0.234	0.217						
2010	Upper Upscale Class, Full Service	LOYALTY	0.388	0.115	0.480					
2010	Upper Upscale Class, Full Service	Market Share (RPI)	0.713	0.276	0.258			0.408		
2010	Upper Upscale Class, Full Service	Moderating Effect: H3	0.044	0.022	0.004			0.074		0.035
2011	Upper Upscale Class, Full Service	Customer Recommendation	0.141							
2011	Upper Upscale Class, Full Service	DV	0.213	0.265						
2011	Upper Upscale Class, Full Service	LOYALTY	0.354	0.144	0.457					
2011	Upper Upscale Class, Full Service	Market Share (RPI)	0.716	0.276	0.269			0.408		
2011	Upper Upscale Class, Full Service	Moderating Effect: H3	0.062	0.067	0.007			0.060		0.162
2012	Upper Upscale	Customer Recommendation	0.096							

	Class, Full Service									
2012	**Upper Upscale Class, Full Service**	**DV**	**0.182**	**0.266**						
2012	**Upper Upscale Class, Full Service**	**LOYALTY**	**0.411**	**0.148**	**0.480**					
2012	**Upper Upscale Class, Full Service**	**Market Share (RPI)**	**0.678**	**0.244**	**0.237**			**0.437**		
2012	**Upper Upscale Class, Full Service**	**Moderating Effect: H3**	**0.107**	**0.034**	**0.057**			**0.041**		**0.207**
2013	**Upper Upscale Class, Full Service**	**Customer Recommendation**	**0.202**							
2013	**Upper Upscale Class, Full Service**	**DV**	**0.144**	**0.210**						
2013	**Upper Upscale Class, Full Service**	**LOYALTY**	**0.446**	**0.281**	**0.458**					
2013	**Upper Upscale Class, Full Service**	**Market Share (RPI)**	**0.701**	**0.328**	**0.218**			**0.474**		
2013	**Upper Upscale Class, Full Service**	**Moderating Effect: H3**	**0.077**	**0.172**	**0.047**			**0.288**		**0.103**
2014	**Upper Upscale Class, Full Service**	**Customer Recommendation**	**0.195**							
2014	**Upper Upscale Class, Full Service**	**DV**	**0.176**	**0.199**						
2014	**Upper Upscale Class, Full Service**	**LOYALTY**	**0.465**	**0.165**	**0.480**					
2014	**Upper Upscale Class, Full Service**	**Market Share (RPI)**	**0.707**	**0.273**	**0.227**			**0.485**		
2014	**Upper Upscale Class, Full Service**	**Moderating Effect: H3**	**0.158**	**0.044**	**0.059**			**0.104**		**0.068**

2015	**Upper Upscale Class, Full Service**	**Customer Recommendation**	**0.254**							
2015	**Upper Upscale Class, Full Service**	**DV**	**0.125**	**0.197**						
2015	**Upper Upscale Class, Full Service**	**LOYALTY**	**0.400**	**0.195**	**0.469**					
2015	**Upper Upscale Class, Full Service**	**Market Share (RPI)**	**0.705**	**0.347**	**0.205**			**0.445**		
2015	**Upper Upscale Class, Full Service**	**Moderating Effect: H3**	**0.113**	**0.016**	**0.019**			**0.075**		**0.020**
2006	**Upscale Class, Extended Stay**	**CONTROLS_RPI**								
2006	**Upscale Class, Extended Stay**	**Customer Recommendation**	**0.193**							
2006	**Upscale Class, Extended Stay**	**DV**	**0.650**	**0.145**						
2006	**Upscale Class, Extended Stay**	**Market Share (RPI)**	0.864	**0.089**	**0.638**					
2007	**Upscale Class, Extended Stay**	**CONTROLS_RPI**								
2007	**Upscale Class, Extended Stay**	**Customer Recommendation**	**0.124**							
2007	**Upscale Class, Extended Stay**	**DV**	**0.541**	**0.171**						
2007	**Upscale Class, Extended Stay**	**Market Share (RPI)**	0.894	**0.032**	**0.519**					
2008	**Upscale Class, Extended Stay**	**Customer Recommendation**	**0.151**							
2008	**Upscale Class, Extended Stay**	**DV**	**0.688**	**0.201**						

2008	Upscale Class, Extended Stay	LOYALTY	0.735	0.085	0.666					
2008	Upscale Class, Extended Stay	Market Share (RPI)	0.914	0.105	0.691			0.688		
2008	Upscale Class, Extended Stay	Moderating Effect: H3	0.007	0.065	0.131			0.019		0.050
2009	Upscale Class, Extended Stay	Customer Recommendation	0.238							
2009	Upscale Class, Extended Stay	DV	0.654	0.248						
2009	Upscale Class, Extended Stay	LOYALTY	0.727	0.142	0.704					
2009	Upscale Class, Extended Stay	Market Share (RPI)	0.816	0.164	0.671			0.652		
2009	Upscale Class, Extended Stay	Moderating Effect: H3	0.193	0.041	0.219			0.297		0.182
2010	Upscale Class, Extended Stay	Customer Satisfaction: Recommendation	0.081							
2010	Upscale Class, Extended Stay	DV	0.497	0.215						
2010	Upscale Class, Extended Stay	LOYALTY	0.535	0.031	0.597					
2010	Upscale Class, Extended Stay	Market Share (RPI)	0.827	0.034	0.511			0.452		
2010	Upscale Class, Extended Stay	Moderating Effect: H3	0.028	0.111	0.086			0.001		0.007
2011	Upscale Class, Extended Stay	Customer Recommendation	0.094							
2011	Upscale Class,	DV	0.391	0.172						

	Extended Stay									
2011	**Upscale Class, Extended Stay**	**LOYALTY**	**0.427**	**0.120**	**0.438**					
2011	**Upscale Class, Extended Stay**	**Market Share (RPI)**	**0.778**	**0.139**	**0.395**			**0.293**		
2011	**Upscale Class, Extended Stay**	**Moderating Effect: H3**	**0.237**	**0.059**	**0.279**			**0.225**		**0.160**
2012	**Upscale Class, Extended Stay**	**Customer Recommendation**	**0.046**							
2012	**Upscale Class, Extended Stay**	**DV**	**0.347**	**0.168**						
2012	**Upscale Class, Extended Stay**	**LOYALTY**	**0.445**	**0.019**	**0.419**					
2012	**Upscale Class, Extended Stay**	**Market Share (RPI)**	**0.728**	**0.031**	**0.359**			**0.311**		
2012	**Upscale Class, Extended Stay**	**Moderating Effect: H3**	**0.266**	**0.063**	**0.068**			**0.056**		**0.144**
2013	**Upscale Class, Extended Stay**	**Customer Recommendation**	**0.020**							
2013	**Upscale Class, Extended Stay**	**DV**	**0.375**	**0.184**						
2013	**Upscale Class, Extended Stay**	**LOYALTY**	**0.536**	**0.058**	**0.481**					
2013	**Upscale Class, Extended Stay**	**Market Share (RPI)**	**0.829**	**0.061**	**0.356**			**0.442**		
2013	**Upscale Class, Extended Stay**	**Moderating Effect: H3**	**0.136**	**0.108**	**0.079**			**0.128**		**0.153**
2014	**Upscale Class, Extended Stay**	**Customer Recommendation**	**0.036**							
2014	**Upscale Class,**	**DV**	**0.294**	**0.104**						

	Extended Stay									
2014	**Upscale Class, Extended Stay**	**LOYALTY**	**0.557**	**0.016**	**0.330**					
2014	**Upscale Class, Extended Stay**	**Market Share (RPI)**	**0.837**	**0.102**	**0.270**			**0.469**		
2014	**Upscale Class, Extended Stay**	**Moderating Effect: H3**	**0.222**	**0.030**	**0.217**			**0.196**		**0.223**
2015	**Upscale Class, Extended Stay**	**Customer Recommendation**	**0.055**							
2015	**Upscale Class, Extended Stay**	**DV**	**0.363**	**0.135**						
2015	**Upscale Class, Extended Stay**	**LOYALTY**	**0.677**	**0.077**	**0.428**					
2015	**Upscale Class, Extended Stay**	**Market Share (RPI)**	0.860	**0.041**	**0.318**			**0.571**		
2015	**Upscale Class, Extended Stay**	**Moderating Effect: H3**	**0.003**	**0.067**	**0.028**			**0.039**		**0.023**
2006	**Upper Midscale Class, Limited Service**	**CONTROLS_RPI**								
2006	**Upper Midscale Class, Limited Service**	**Customer Recommendation**	**0.025**							
2006	**Upper Midscale Class, Limited Service**	**DV**	**0.253**	**0.181**						
2006	**Upper Midscale Class, Limited Service**	**Market Share (RPI)**	0.861	**0.083**	**0.209**					
2007	**Upper Midscale Class, Limited Service**	**CONTROLS_RPI**								

2007	**Upper Midscale Class, Limited Service**	**Customer Recommendation**	**0.034**							
2007	**Upper Midscale Class, Limited Service**	**DV**	**0.297**	**0.181**						
2007	**Upper Midscale Class, Limited Service**	**Market Share (RPI)**	0.868	**0.077**	**0.233**					
2008	**Upper Midscale Class, Limited Service**	**Customer Recommendation**	**0.061**							
2008	**Upper Midscale Class, Limited Service**	**DV**	**0.376**	**0.260**						
2008	**Upper Midscale Class, Limited Service**	**LOYALTY**	**0.176**	**0.100**	**0.222**					
2008	**Upper Midscale Class, Limited Service**	**Market Share (RPI)**	0.883	**0.055**	**0.321**			**0.142**		
2008	**Upper Midscale Class, Limited Service**	**Moderating Effect: H3**	**0.081**	**0.044**	**0.051**			**0.816**		**0.046**
2009	**Upper Midscale Class, Limited Service**	**Customer Recommendation**	**0.102**							
2009	**Upper Midscale Class, Limited Service**	**DV**	**0.441**	**0.208**						
2009	**Upper Midscale Class, Limited Service**	**LOYALTY**	**0.566**	**0.192**	**0.634**					
2009	**Upper Midscale Class, Limited Service**	**Market Share (RPI)**	**0.777**	**0.086**	**0.428**			**0.516**		

2009	**Upper Midscale Class, Limited Service**	**Moderating Effect: H3**	**0.239**	**0.083**	**0.124**			**0.143**		**0.200**
2010	**Upper Midscale Class, Limited Service**	**Customer Satisfaction: Recommendation**	**0.034**							
2010	**Upper Midscale Class, Limited Service**	**DV**	**0.322**	**0.183**						
2010	**Upper Midscale Class, Limited Service**	**LOYALTY**	**0.443**	**0.095**	**0.568**					
2010	**Upper Midscale Class, Limited Service**	**Market Share (RPI)**	0.870	**0.067**	**0.280**			**0.393**		
2010	**Upper Midscale Class, Limited Service**	**Moderating Effect: H3**	**0.213**	**0.045**	**0.149**			**0.185**		**0.157**
2011	**Upper Midscale Class, Limited Service**	**Customer Recommendation**	**0.052**							
2011	**Upper Midscale Class, Limited Service**	**DV**	**0.223**	**0.137**						
2011	**Upper Midscale Class, Limited Service**	**LOYALTY**	**0.379**	**0.046**	**0.505**					
2011	**Upper Midscale Class, Limited Service**	**Market Share (RPI)**	0.863	**0.085**	**0.187**			**0.329**		
2011	**Upper Midscale Class, Limited Service**	**Moderating Effect: H3**	**0.000**	**0.078**	**0.028**			**0.005**		**0.001**
2012	**Upper Midscale Class, Limited Service**	**Customer Recommendation**	**0.122**							

2012	Upper Midscale Class, Limited Service	DV	0.175	0.098						
2012	Upper Midscale Class, Limited Service	LOYALTY	0.360	0.105	0.466					
2012	Upper Midscale Class, Limited Service	Market Share (RPI)	0.744	0.078	0.201			0.336		
2012	Upper Midscale Class, Limited Service	Moderating Effect: H3	0.062	0.015	0.077			0.130		0.033
2013	Upper Midscale Class, Limited Service	Customer Recommendation	0.078							
2013	Upper Midscale Class, Limited Service	DV	0.149	0.104						
2013	Upper Midscale Class, Limited Service	LOYALTY	0.377	0.062	0.438					
2013	Upper Midscale Class, Limited Service	Market Share (RPI)	0.845	0.100	0.109			0.294		
2013	Upper Midscale Class, Limited Service	Moderating Effect: H3	0.141	0.093	0.045			0.165		0.107
2014	Upper Midscale Class, Limited Service	Customer Recommendation	0.116							
2014	Upper Midscale Class, Limited Service	DV	0.126	0.096						
2014	Upper Midscale Class, Limited Service	LOYALTY	0.375	0.072	0.387					

2014	**Upper Midscale Class, Limited Service**	**Market Share (RPI)**	**0.849**	**0.120**	**0.092**			**0.296**		
2014	**Upper Midscale Class, Limited Service**	**Moderating Effect: H3**	**0.046**	**0.054**	**0.011**			**0.013**		**0.024**
2015	**Upper Midscale Class, Limited Service**	**Customer Recommendation**	**0.084**							
2015	**Upper Midscale Class, Limited Service**	**DV**	**0.157**	**0.114**						
2015	**Upper Midscale Class, Limited Service**	**LOYALTY**	**0.429**	**0.057**	**0.423**					
2015	**Upper Midscale Class, Limited Service**	**Market Share (RPI)**	**0.847**	**0.117**	**0.102**			**0.346**		
2015	**Upper Midscale Class, Limited Service**	**Moderating Effect: H3**	**0.017**	**0.067**	**0.001**			**0.044**		**0.015**

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