AN ANALYSIS OF THE TRANSACTION-SPECIFIC MODEL IN A FULL-SERVICE HOTEL SETTING

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ABSTRACT

Customer satisfaction and repeat purchasing are topics of widespread debate and study. The purpose of this study is to determine the relative importance of the three components of the Transaction-Specific model as proposed by Parasuraman, Zeithaml, and Berry (1994): product quality, service quality, and value for price paid to guests of a full-service hotel. Based on a survey of guests of a major hotel chain, our results indicate that value is the most influential in determining both a guest’s overall satisfaction and intent to return. Service quality is the second most important, and product quality the least important factor, with both overall satisfaction and intent to return. Although the order remains consistent, value has a much greater relative effect than the other two variables on intent to return.
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ACKNOWLEDGEMENT

This thesis would not have been possible had it not been for the generous assistance from Dr. Daniel Mount. Prior to this project, I had had very little experience with research and technical writing, and he was willing to support and educate me every step of the way. This was a challenging undertaking due to my limited knowledge of the subject matter, but Dr. Mount provided me with literature from his own personal library to allow me to gain a broader understanding. With the research components, he demonstrated how exactly to perform each of the tests and analyses. I also appreciate his patience with correcting the technical aspects of the thesis and his explanations of how to write in this manner. Upon the completion of this project, I have the utmost gratitude for Dr. Mount and his remarkable dedication to helping me accomplish this milestone of my educational career.
INTRODUCTION

The notion that repeat business and increased profits are a direct result of high-quality customer service has been validated consistently through research. Reichheld and Sasser (1990) showed that companies can increase profits by almost 100% simply by retaining 5% more of their customers. Szymanski and Henard (2001) and Bearden and Teel (1983) found a positive relationship between satisfaction and loyalty. Following their service quality study in a hotel setting, Olorunniwo, Hsu, and Udo (2006) concluded that repeat purchases were a result of customer satisfaction, which itself is a direct product of service quality. Therefore, it is a solid business principle for industry leaders to set standards in hospitality operations of achieving high quality service to all clientele. As a result of the importance of customer satisfaction, both researchers and service professionals have been seeking the best method of evaluating both service quality and customer satisfaction for years. Since the mid-1980’s, there has been a clear expansion in the amount of empirical and observational studies done in the area of service quality (Lee, Lee, & Yoo, 2000). This was a direct result of the publication of “A Conceptual Model of Service Quality and Its Implications for Future Research” in by Parasuraman, Zeithaml, and Berry (1985) (Grapentine, 1998).

The article detailed the trio’s innovative Theory of the Gaps Model, a collection of five possible disparities that can be experienced between an organization and a consumer. The fifth gap, the difference between customer expectations and perceptions, otherwise known as the “Service Quality Gap” was of most interest to the team (Grapentine, 1998). The gap is illustrated by the equation $Q = P - E$, where service quality ($Q$) is the difference between the customer’s perception of the experience ($P$) and his or her expectations ($E$). Parasuraman et al. (1985) also introduced the ten dimensions that determine service quality: reliability, responsiveness, competence, access, courtesy, communication, credibility, security, understanding the customers, and tangibles. Parasuraman, Zeithaml, and Berry (1988) defined service quality as “a global judgment, or attitude, relating to the superiority of the
service” (p.16) and reduced their previous ten dimensions of service quality to five: tangibles, reliability, responsiveness, assurance, and empathy. This became the foundation of their proposed quality assessment tool now known as SERVQUAL. The team initially tested their progressive model in four service industries: credit card, banking, long-distance telephone services, and repair and maintenance, finding reliability to be the most important and empathy the least important of all dimensions in all four of the industries (Lee, Lee, & and Yoo, 2000).

Immediately upon release, SERVQUAL began receiving criticism from other researchers. In particular, Teas (1993) posed several criticisms to the model. He contended that the survey wording is very ambiguous and could easily be misinterpreted by customers. For example, he cites the word “should” as being an opportunity for respondents to assign unrealistically high ratings to the expectations questions. He also argues that with the ideal point interpretation of the expectations scale, it would be logical that perceived quality would decrease as perceptions surpass the ideal point (Teas, 1993). Parasuraman, Berry, and Zeithaml (1990) recognized the confusion from the wording and altered their model to include E*, a measure focusing on “companies that would deliver excellent quality” (p. 46) and determining quality based on the amount that each attribute is considered “essential”, in place of E, the expectations customers had in respect to what the entity “should” offer (p.46). Teas (1993) finds fault with this method as well, saying the degree of quality will therefore be skewed by the degree to which each attribute is considered “essential”. As a result, Teas developed and empirically tested a few of his own models, finding them to possibly be more valid than the SERVQUAL P-E model. He mentions that his models need to be further tested to better determine their reliability.

Another response to the original SERVQUAL article by Parasuraman et al. was that of Cronin and Taylor (1992). They believed that the model was flawed in that it “is based on a satisfaction paradigm rather than an attitude model” (of which they argue service quality is a function), and that through their
empirical tests, “SERVQUAL confirms in only two of the four industries” (p.64). They compared the results of separate weighted and unweighted versions of SERVQUAL with both weighted and unweighted versions of their own model, SERVPERF (Cronin and Taylor, 1992). SERVPERF embodies the perception of performance that customers identify as an accurate assessment of service quality. As the focus of research and majority of evidence at that time was more directed toward perceptions of performance, Olorunniwo, Hsu, and Udo (2006) utilized the SERVPERF scale in their 2006 study of an operationalized service quality construct in a service factory context. They conducted a factor analysis study of undergraduate students and hotel guests based on the following six dimensions of hotel service inspired by Parasuraman et al.: Tangibles, Recovery, Responsiveness, Knowledge, Reliability, and Accessibility and Flexibility. As a part of the research, they compared the relationship between service quality driving behavioral intentions and the indirect effect of service quality determining customer satisfaction, which in turn, drives behavioral intentions. Interestingly enough, they found the second to be profoundly more effective, arguing the causality of customer satisfaction from service quality (Olorunniwo, et. al. 2006). Knutson, Stevens, Wullaert, Patton, and Yokoyama (1991) further explored Parasuraman et al.’s proposed dimensions and developed the index LODGESERV, which confirms the following five lodging industry service dimensions: Tangibility, Reliability, Responsiveness, Assurance, and Empathy.

One of the main debates found in service quality literature is the causality between customer satisfaction and service quality (Cronin & Taylor, 1992; Olorunniwo, et. al. 2006; Parasuraman et. al., 1994; Sibley, 2007). It is consistently asserted that an attitude or overall methodology of measurement is used if the belief is that service quality is a function of customer service (Cronin & Taylor, 1992; Parasuraman et. al. 1988; Sibley, 2007; Teas, 1993). This is due to the idea that the formation of an attitude over extended amounts of encounters will determine the service quality. However, if a transaction-specific measure is used, it is assumed that the level of service quality at the time of the
unique encounter determines customer satisfaction (Sibley, 2007). This is an important distinction as it determines which methods of research should be conducted for optimum understanding of quality.

Parasuraman et al. (1994) address the concerns raised by both Cronin and Taylor (1992) and Teas (1993). They consider several of Cronin and Taylor’s findings to be inaccurate and state that many of the conclusions reached by Cronin and Taylor via their relational studies between SERVQUAL and SERVPERF were unwarranted and questionable. In particular, the team criticizes Cronin and Taylor for their unidimensional analysis of the five service dimensions previously proposed by Parasuraman et. al., who attest that the overlap of the five facets needs to be accounted for in an accurate study (Parasuraman et. al., 1994). In response to Teas, Parasuraman et al. commend him for several of his concerns and attempt to provide further clarification on their equation inputs and interpretations.

Parasuraman et al. (1994) also remark on the continuing debate of the causality between service quality and customer satisfaction. They state “SQ researchers have posited that an accumulation of transaction-specific assessments leads to a global assessment (i.e., the direction of causality is from CS to SQ). However, on careful reflection, we now believe that this distinction may need to be revised, particularly because some recent studies (Reidenbach & Sandifer-Smallwood 1990; Woodside, Frey, & Daly 1989) have modeled SQ as an antecedent of CS” (p. 112). They demonstrate their acceptance of a new model with the proposition of the Transaction-Specific Evaluations conceptualization, which suggests that a customer’s transaction satisfaction is a combined function of his or her evaluations of the service quality, product quality, and price (Parasuraman et al., 1994). The foundation of this model is that the “service quality and customer satisfaction constructs can be examined at both transaction-specific and global levels” and is consistent with the majority opinion of service quality researchers that “satisfaction (with specific transactions) leads to overall quality perceptions” (Parasuraman et al. 1994, p.122).
Since the development of the Transaction-Specific framework, several researchers have utilized the model in their own studies. For example, Jones and Suh (2000) compare transaction-specific satisfaction and overall satisfaction, defining overall satisfaction as “the consumer’s overall dis/satisfaction with the organization based on all encounters and experiences with that particular organization” (Bitner and Hubbert, 1994, pp. 76-77). Although Jones and Suh (2000) admit that the two may not be perfectly correlated, their research consisted of testing the two types of satisfaction on the same scale to determine which was more effective in predicting repurchase intentions. Overall, they found that in terms of repurchase intentions, overall satisfaction is a slightly better measurement tool. However, they suggest that if a company wants to measure long-term service and individualized satisfaction based on situational encounters, they should employ transaction-specific measurements.

Andaleeb and Conway (2006) used the Transaction-Specific model for evaluating a full-service restaurant. They conducted a factor analysis and multiple regression on their division of four factors of quality for the restaurant: responsiveness, food quality/reliability, physical design, and price. Their regression analysis found that customer satisfaction was most influenced by responsiveness of front-line
employees, followed by price and then food quality; the physical design and appearance of the restaurant were deemed insignificant.

Abdullah and Rozario (2009) conducted a simple random sampling technique of 149 employees (of a hotel staff population of 600) in regards to their staff cafeteria. Their first finding completely contrasted with those of Andaleeb and Conway because they found a significant relationship between place and ambience and customer satisfaction. They also found an unexpected significant negative relationship between food quality and customer satisfaction and a significant positive relationship between service quality and customer satisfaction. Although this study was conducted in a hotel, it can be argued that this is more representative of a restaurant analysis.

Following a thorough research and review of the literature, many opportunities for the continued use of the transaction-specific in other industries are shown to exist. There is currently no literature detailing the use of this quality assessment instrument in hotels in regard to guest opinions and satisfaction. Therefore, the purpose of this study is to develop and test a Transaction-Specific model in the hotel industry.

**METHODOLOGY**

For this study, secondary data was obtained from a hotel company. The company provided all of the guest satisfaction survey data as collected by a third-party vendor for a one-year time period. The guest contact information is provided to the third-party vendor each evening. The information is “cleaned and filtered” to verify that emails addresses are valid and that surveys do not go to predetermined groups such as distressed airline passengers. The research company then generates random surveys in amounts sufficient to meet predetermined quotas based on a historical response rate. The hotel company has multiple brands but data for only one brand was used in this study to prevent any cross-brand confounding effects. The brand used for this study is an upscale full-service
brand with a large number of hotels nationwide that generated over 300,000 responses on their guest survey for the 2008 period.

To explore the transaction-specific model relationships, the variables of “product” and “service” had to be identified. Therefore, a factor analysis, using a random sample of 1,000 cases, was conducted to specify the model. The goal of this analysis was to identify which would be most representative of the proposed factors. An exploratory factor analysis using a varimax rotation and eigenvalues greater than one identification criteria was first conducted. A subsequent factor analysis, using a different random sample of 1,000 cases was then carried out to confirm the factor structure. Regression analyses were then used to explore the relationships in the transaction-specific model framework.

ANALYSIS

In order to limit the questions used to only those that were relevant to a large majority of guests, only questions with a response rate of 90% or higher were kept. Because the representative sample constituted 1000 cases, the included survey questions needed to have received 900 or more responses. This eliminated questions pertaining to certain hotel amenities such as spas, room service, and golf that are not representative of the guest population. As a result, the 23 survey questions entered into the first exploratory factor analysis were as follows: attractive and inviting hallways, lobby comfortable for relaxing, warm and hospitable, staff responsive to needs/requests, staff skilled and well-trained, guest room comfortable for relaxing, bathroom overall, departure experience overall, up-to-date, genuinely caring, luxurious, offered touches of luxury, current/up-to-date design, perfect hotel for someone like you, helped you enjoy your trip, arrival experience overall, well-maintained, secure/safe environment, staff going the extra mile, guestroom smelling clean and fresh, everything in working order in guestroom, comfortable bed, and helped you relax. An exploratory factor analysis was conducted using varimax rotation and an eigenvalue > 1 extraction method.
Upon first interpreting the results of the initial factor analysis of the 23 questions, the plan was to identify all items with a significant loading on only one factor. A significant loading factor of 0.3 was used as recommended by Hair, Anderson, Tatham & Black (1998). While all items had significant primary loading on one factor, only three of those had secondary loadings of less than 0.3: responsive to needs/requests, bathroom overall, and comfortable bed. The secondary loading factor threshold was raised to 0.35. As a result of this modification, there were deemed to be six significant variables in the first factor (comfortable for relaxing, bathroom overall, offered touches of luxury, smelling clean and fresh, everything in working order, and comfortable bed) and three significant variables in the second (warm and hospitable, responsive to needs/requests, and going the extra mile). Upon analyzing these groupings, it was determined that the first factor described product attributes while the second was a representation of service.

A second factor analysis was performed with the nine new product and service variables only. The results showed an increase in the secondary loading factor of the variable “offered touches of luxury” to be above the 0.35 threshold on the product factor. It was therefore decided to eliminate this item before continuing. The total percent of the variance explained at this point was 76.60%.

The third factor analysis of the eight remaining variables revealed that 77.78% of the variance was explained by the two-factor method. Upon reviewing the new loading factors, it was noted that the primary loading factor of “everything in working order” was 0.705, which was much lower than the rest (all above .795). Based on the initial communalities, it was decided to run the factor analysis again following the addition of the variable “skilled and well trained” (initial communality= 0.891) and the elimination of “everything in working order” (initial communality= 0.445).

The fourth factor analysis with the four product variables (comfortable for relaxing, bathroom overall, smelling clean and fresh, and comfortable bed) and the four service variables (warm and
hospitable, responsive to needs/requests, going the extra mile, and skilled and well-trained) yielded a much higher percentage of the variance being explained at 82.47%. It also further validated the decision to exchange the two variables: “skilled and well trained” and “everything in working order.” The primary loading factors of the eight variables, as portrayed by the fourth factor analysis, are detailed below.

| 1.) Comfortable for relaxing | Product Factor | 0.811 |
| 2.) Bathroom overall       | Product Factor | 0.812 |
| 3.) Smelling clean and fresh | Product Factor | 0.803 |
| 4.) Comfortable bed        | Product Factor | 0.814 |
| 5.) Warm and hospitable    | Service Factor | 0.869 |
| 6.) Responsive to needs/requests | Service Factor | 0.899 |
| 7.) Going the extra mile   | Service Factor | 0.902 |
| 8.) Skilled and well-trained | Service Factor | 0.890 |

To test the reliability of the construct, a Cronbach’s Alpha measurement was conducted. The first sample had alphas of 0.88 for the product variables and 0.96 for the service variables. The factor analyses was verified using a random sample of 1000, and the constructs confirmed as expected. All primary factor loadings were above 0.76, and all secondary loadings were below 0.38. A Cronbach’s Alpha measurement was taken for the second sample as well, which yielded an alpha of 0.86 for product and an alpha of 0.96 for service. Next, regression analyses were conducted on the factors with both the Overall Satisfaction and Intent to Return dependent variables. The regression results for Overall Satisfaction are presented in Table 2.
<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Standard Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>(Constant)</td>
<td>5.551</td>
<td>0.210</td>
<td>26.494</td>
<td>0.000</td>
</tr>
<tr>
<td>Value received for price paid</td>
<td>0.364</td>
<td>0.025</td>
<td>0.404</td>
<td>14.329</td>
</tr>
<tr>
<td>REGR service factor score</td>
<td>0.677</td>
<td>0.042</td>
<td>0.386</td>
<td>16.071</td>
</tr>
<tr>
<td>REGR product factor score</td>
<td>0.565</td>
<td>0.042</td>
<td>0.322</td>
<td>13.554</td>
</tr>
</tbody>
</table>

\[ *r^2=0.72 \]

The regression model is significant at \( p < .001 \) and the \( R^2= .72 \) which indicates that a large percent of the variance in the variable “overall satisfaction” is explained by the transaction specific factors. The model demonstrates that value received for price paid correlates most directly with overall satisfaction at a beta of 0.404. However, the relation of overall satisfaction and service follows closely at a beta of 0.386. Product was shown to be the least important in determining overall satisfaction at a beta of 0.322.

The regression results for Intent to Return are presented in Table 3. The regression is significant at \( p < .001 \) and the \( R^2 = .52 \), which indicates that a large percent of the variance in the variable “intent to return” is explained by the transaction specific factors. In this model, value received for price paid was again shown to be the most significant factor. The same order actually applies for all three of the factors, with value being the most influential, followed by service, and then product. However the degrees of determining the intent to return vary much more greatly than with overall satisfaction. The beta for value is 0.418, while the service and product betas are 0.257 and 0.242. This demonstrates that value for the price paid is much more important than service quality and product quality in determining intent to return.
**Table 3: Regression Analysis on Intent to Return**

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value received for price paid</td>
<td>0.209</td>
<td>0.19</td>
<td>11.209</td>
<td>0.000</td>
</tr>
<tr>
<td>REGR service factor score</td>
<td>0.25</td>
<td>0.25</td>
<td>8.092</td>
<td>0.000</td>
</tr>
<tr>
<td>REGR product factor score</td>
<td>0.24</td>
<td>0.24</td>
<td>7.708</td>
<td>0.000</td>
</tr>
</tbody>
</table>

*R^2=0.52*

**DISCUSSION**

Monitoring customer perceptions of service and quality and their intentions to return to the company has always been of utmost importance to hospitality professionals. As a result, numerous models have been developed throughout the years as a means of determining guests’ levels of satisfaction and commitment. Prior to this study, the Transaction-Specific Model proposed by Parasuraman, Zeithaml, and Berry (1994) had been applied to, and tested within, several businesses. In the hospitality industry, it had been utilized in a full-service restaurant (Andaleeb & Conway, 2006) and a hotel staff cafeteria (Abdullah & Rozario, 2009). This study extends prior research by utilizing the Transaction-Specific Model to analyze responses of guests of a full service hotel chain. It revealed that of the three Transaction-Specific variables (value for price paid, service quality, and product quality), value is the most influential in both overall satisfaction and intent to return. While value for price paid is the leading determinant of both of these outcome measures, it influences intent to return to a greater degree than overall satisfaction. This could be because customers have accepted the amount of money they spent on the stay on which they are being surveyed, and therefore judge the experience as a whole with less of an emphasis on the monetary factors. Furthermore, when planning financially for the future, value and price are of greater concern. This study’s findings are slightly different than those...
found by Andaleeb and Conway (2006) and Abdulla and Rozario (2009). While value was deemed the most influential in this study, Andaleeb and Conway found service to be of greater consequence in the full-service restaurant they investigated. Their order of importance was service quality, value, and then product quality, while this study showed the order to be value, service quality, and then product quality. In their hotel staff cafeteria study, Abdullah and Rozario found a positive relationship between the quality of the service and satisfaction as well, but a surprising negative relationship between food quality and satisfaction. They argue that this could mean the quality of the food was not in accordance with staff perceptions, or that staff cafeteria employees were satisfied enough in other regards of the cafeteria such as value and ambience that the food quality became a minimal consideration (Abdullah & Rozario, 2009). Because the staff cafeteria provided meals for free to its employees, Abdullah and Rozario did not measure the effect of value on satisfaction. Therefore we cannot determine if their results are fully in accordance with this study. However, their results that service quality is more important than product quality are consistent with this study’s findings. A study involving the utilization of the transaction-specific model and guest surveys in a full service hotel has never been performed prior to this study. Therefore, direct comparisons of results from prior studies cannot be accurately made. Relations were found between this study and others using the transaction-specific model in other aspects of the hospitality industry, but there is definite room for continuation of this research. Different brands or hotel companies could be investigated to determine whether this order of importance (value, service quality, and then product quality) remains true. A departmentalized approach to further testing these results could also be conducted. In addition, the transaction-specific model could be further examined in other service industries such as retail or healthcare.
REFERENCES


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Education

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The Pennsylvania State University
August 2008-December 2011
Minor in Spanish
Electives: International Hospitality Management, Revenue Management

The Schreyer Honors College
April 2010-August 2011
- Undergraduate Research Thesis on the relative importance of value, product, and service to guests in the Hotel Industry

The University of Puerto Rico
Summer 2011
- International Hospitality and Puerto Rican Culture courses
- Conducted a feasibility study on opening a Kimpton Hotel in Guanaja, Honduras

Experience

Front Desk Agent
Shaner Hotel Group (Hampton Inn and Fairfield Inn) - State College, PA
August 2010-August 2011
- Cross-trained on front desk, breakfast service, and auditing
- Trained new front desk employees
- Made individual reservations and organized group bookings
- Responsibly maintained hotel finances and oversaw profit centers

Intern Manager at the Hotel Hershey
Hershey Entertainment and Resorts- Hershey, PA
May-September 2010
- Learned Responsibilities of and supervised all Trevi 5 staff members
- Resolved both guest and employee issues; mediated between front and back of house, staff scheduling
- Assisted with decision making in opening new restaurant

Banquet Server
The Country Club of York- York, PA
April 2006-August 2009
- Provided efficient and friendly service to customers
- Prepared for banquets and maintained function area cleanliness
- Gained experience in variety of events-weddings, corporate functions, etc.

Campus/Community Involvement

Summer Program Mentor/ Soccer Coach
York City School District- York, PA
Summers 2008 and 2009
- Taught summer classes and soccer to inner-city, at-risk kids
- THON Committees: Operations, Rules and Regulations: Secretary
- American Hotel and Lodging Association: Member
- Intramural Volleyball: Team Organizer
- Blue and White Society: Member
- Penn State Outing Club: Member
- Benefit Walks for Health Causes

Additional Skills/Certifications
- Servsafe, Servsafe Alcohol, TIPS, Hilton’s OnQ, Marriott’s FOSSE and MARSHA, OpenTable
- Chosen as General Manager of our student-run restaurant at Penn State