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Consumers’ Willingness to Pay and to Patronize According to Major Restaurant Attributes

By: Jitka Perutkova
Faculty Mentor: Dr. H.G. Parsa

ABSTRACT: This study identifies the most important factors in the consumer decision-making process when choosing a restaurant. Using a dynamic comparison process, this study additionally explores consumers’ willingness to pay for each of three major attributes of restaurants: food quality, service, and ambience. Understanding this relationship is important for managers in attaining the aspired level of consumer satisfaction. Results indicate that food quality is more important than service and ambience in upscale restaurants, while speed of service is more important than food quality and ambience in quick-service restaurants. Thus, consumers are willing to pay more for high-quality food at upscale restaurants and for speed of service at quick-service restaurants. Economic literature states that the relationship between consumers’ willingness to pay and the elasticity for a restaurant’s attributes is linear (positive and direct), while the current results do not support this assumption. This study should have a significant impact on the restaurant industry, as it identifies the scope of differential returns on investment on various restaurant attributes.
INTRODUCTION

This study examines the most important factors in quick-service and upscale-service restaurants in a consumer selection process, using four different scenarios. The ranking order method was used in much previous research to identify consumers’ willingness to pay (WTP). In the rank-order method, consumers consider restaurant attributes in a sequential manner, in order of importance, in making decisions about which restaurants to patronize. In the current study, by contrast, we substituted the sequential process with a dynamic comparison for consumers’ willingness to pay for three major restaurant attributes: food quality, service, and ambiance.

The levels of restaurant attributes were separated as high and low and the WTP was measured in dollar amounts. This study includes an understanding of the nature of the relationship between restaurant attributes and the consumers’ WTP. Understanding the functional structure of this relationship can help restaurants to make wise decisions in terms of allocating their funds for maximum return on investment. For reading ease, the following abbreviations were used in this paper: WTP (willingness to pay), ROI (return on investment), CS (customer satisfaction), and WTR (willingness to return).

LITERATURE REVIEW

Researchers have recently addressed the links between customer satisfaction (CS) and restaurant performance, emphasizing the way that satisfaction affects a customer’s repeat purchase practices (Sulek and Hensley 2004; Söderlund and Öhman 2005; Cheng 2005). Several studies have identified some of the factors that influence customer’s satisfaction of dining experience, including wait time, quality of service, responsiveness of front-line employees, menu variety, food prices, food quality, food consistency, ambience of the facilities, and convenience (Sulek and Hensley, 2004; Iglesias and Yague 2004; Andaleeb and Conway 2006).

In reality, the success of restaurant managers/owners depends on understanding their customers’ needs and expectations, and then meeting these needs better than the competition. While estimates vary, a National Restaurant Association report indicated that 60% of all new restaurants fail within the first three years in business, and roughly half of those fail in the first year (Parsa, Self, King, and Njite 2005). This high percentage of failure shows the importance of ensuring customer satisfaction by providing excellent service, listening to customers’ needs and complaints, and caring about the customer.

An additional benefit of customer satisfaction is the increased likelihood that diners will repatronize the establishment. The majority of previous research has addressed the nonlinear effects of antecedents on CS (Anderson and Mittal 2000; Mittal, Ross, and Baldasare 1998; Oliver 1995). For example, Mittal et al. examined the nonlinear effects of attribute performance on CS, and found support for an S-shaped function (which is steep in the middle and flat at the extremes). These results question the commonly held belief of linear (positive and direct) relationships between product attributes and consumer satisfaction. Only a few studies have presented empirical evidence for nonlinear effects in the satisfaction-outcome link (with dependent variables such as customer loyalty and complaining behavior), and no examination of the functional structure for specific relationships have yet been undertaken.

The décor, or ambiance, of a restaurant works simultaneously with the quality of service and the quality of food; both of these variables have received attention in research studies (Okada and Hoch 2004). Kotler (1998) pointed out that a product can be categorized into three distinct but correlated benefit levels: the core benefits (core service/service product), the tangible benefits (servicescapes), and the intangible benefits of a product (human element of service delivery).

Core benefits are the fundamental benefits that the customer receives (Kotler 1998). These relate to the actual outcomes, or the core service, as perceived by the customer. Tangible benefits are produced and consumed simultaneously through the interaction and encounter process in the delivery of service. These benefits include, for example, the ambience and the physical environment where the core benefits are provided. In the restaurant business, tangible attributes include atmosphere, interior design, lighting, and dining area layout (Kim, Lee, and Yoo 2006). These environmental cues can influence a customer’s belief in the trustworthiness of the provider. Intangible benefits include the ambience and the physical environment where the core benefits are provided.
These benefits are basically concerned with the interaction between the service provider and customers and can be assessed in a highly subjective manner.

In the restaurant industry, intangible benefits are conceptualized as the responsive, courteous, caring, and professional behavior provided by the service staff during the many “moments of truth” in the course of creation and delivery of the core service. These include friendliness, knowledge, competence, and attitude of service staff (Kim, Lee, and Yoo 2006; Reich, McCleary, Tepanon, and Weaver 2005). Sulek and Hensley (2004) investigated the influence of various attributes of a restaurant on customer satisfaction. Their dependent variable was customer satisfaction with overall dining experience. Of the independent variables tested in Sulek and Hensley’s study, only three were found to be statistically significant: food quality, dining atmosphere, and seating-order fairness. Interestingly, several variables that might have been expected to have influenced satisfaction, such as wait time, wait area comfort, and staff politeness, were not found to be statistically significant.

Nevertheless, one key challenge for service marketers is to identify critical variables that determine customer loyalty. Oh (1999) commented that only limited studies have focused on the causal relationships between critical variables (e.g., service quality, customer value, and customer satisfaction) and customer loyalty (e.g., repurchase and word-of-mouth recommendation), particularly in the hospitality industry setting.

Previous studies have been conducted mainly on customer loyalty in the hotel industry (e.g., Bowen and Chen 2001; Kandampully and Suhartanto 2000; Mak, Sim, and Jones 2005; Mason, Tideswell, and Roberts 2006), whereas little research has focused on customer loyalty in the restaurant industry. Other variables found to be related to customer loyalty include service benefits (Kotler 1998; Zeithaml, Berry, and Parasuraman 1996), perceived value (Zeithaml 1988), and customer satisfaction (Fornell 1992).

A study conducted by Skogland and Signauw (2004), with a sample of 364 hotel guests, showed no statistically significant relationship between satisfaction and loyalty. In this study, several dimensions of loyalty were used as dependent measures: repeat patronage, attitudinal loyalty, and word-of-mouth loyalty. Service and food quality were the critical attributes influencing repeat-purchase intentions in full-service service restaurants, while speed of service was the most important attribute in quick-service restaurants (Sulek and Hensley 2004; Clark and Wood 1998).

Kivela, Inbakaran, and Reece (2000) tested several propositions related to dining satisfaction and return patronage. The specific areas investigated included the influence of satisfaction on return patronage, variation in satisfaction by demographic characteristics, and the difference in intention to return to the establishment based on prior frequency of visits. Kivela’s et al. results showed that favorable attitudes play a greater role in positive word of mouth, while the value has a relatively greater role in personal repeat patronage intentions.

In the hospitality industry, core, tangible, and intangible benefits (e.g., overall impression of restaurant, overall food quality, helpfulness of employees, friendliness of employees, and competence of employees) were found to have positive relationships with customer satisfaction and loyalty (Gupta, McLaughlin, and Gomez 2007; Heung, Wong, and Qu 2002; Matzler, Renzl, and Rothenberger 2006; Reich et al. 2005; Tepeci 1999).

Economic literature states that the relationship between consumers’ willingness to pay and the elasticity for the restaurant attributes is linear. A recent study showed that consumers’ willingness to return hinges on quality food at an appropriate cost (Gupta et al. 2007). However, empirical evidence to support this assumption is limited. In the theoretical domain, answering these research questions provides an important understanding of the link between consumer satisfaction, profitability, and consequential customer loyalty.

Tse and Wilton (2001) used conjoint analysis to investigate the trade-off between quality of service and the price on the selection of a restaurant. Their findings revealed that consumers consider price to be more important than service in making a restaurant choice. These findings were consistent for male and female consumers as well as for higher-educated consumers.

Empirical research has demonstrated that the value-related dimensions—including the core, tangible, and intangible benefits—are related to overall service quality and customer satisfaction (Taylor and Baker...
1994; Zeithaml, Berry, and Parasuraman 1996). Overall service quality, in turn, was found to have significantly influenced the perceived value (Whittaker, Ledden, and Kalafatis 2007). The positive influence of the perceived value on customer satisfaction and behavioral intentions has also been well documented in the services marketing literature (Huber, Herman, and Hennepfer 2007; Lin, Sher, and Shih 2005; Whittaker, Ledden, and Kalafatis 2007).

It has been suggested that a high level of perceived value leads to customer satisfaction in the restaurant industry (Lee, Park, Park, Lee, and Kwon 2005), but according to some studies, satisfaction leads to repeat purchase and brand loyalty (Oliver 1980; Cronin and Taylor 1992). However, other research evidence has shown that perceived value, rather than customer satisfaction, is a better predictor of customer loyalty (Reicheld 1996). Lee et al. reported that value is the consequence of a good product and good service quality. Since customer value affects customer satisfaction and customer loyalty (Lee), value can then be found as the mediator to achieving customer satisfaction and loyalty (Bontis, Booker, and Serenko, 2007; Kwon, Trail, and James 2007; Lam, Shankar, and Murthy 2004; Woodruff 1997).

**METHODOLOGY**

This scenario-based experimental research method uses upscale and quick-service restaurant experiences to test the proposed relationships. The current research instrument consists of five sections. The first section includes the introduction in which the expectations are set. Each of the four scenarios contains a different restaurant experience. After reading a scenario, the participants were asked to provide their willingness to pay (WTP) on an absolute dollar scale and their willingness to return (WTR) on a numerical scale of 1 to 7 containing descriptive anchors.

In the first two experiments, participants were asked to read written scenarios describing upscale restaurant contexts. Participants were then asked to evaluate their WTP and WTR with eight sets of food quality, service, and ambiance attributes ranked from good to excellent. Based on their attribute preference, participants were expected to indicate their level of WTP on a range of $50 to $150 and WTR on a scale of 1 (least likely) to 7 (most likely).

In the third and fourth sets of the experimental studies, the participants were asked to evaluate the written scenarios that are set in quick-service restaurant contexts. Participants were given the option to choose among food quality, speed of service, and attractiveness attributes ranging from average to good. Based on the attribute preference, participants were then asked to indicate how likely they were to return to the same restaurant with a scale of the least-likely-rated (lowest number) to most-likely-rated (highest number). Respondents were also asked to indicate their WTP within a range of $5 to $15. Demographic data from the participants was also collected.

A total of 380 cases from 95 respondents were analyzed, 190 cases each for upscale and quick-service restaurants. Data was collected at a major public university in the southeastern part of the United States. Data was collected at a hospitality college where students are familiar with both quick-service and upscale restaurants. The pre-test process revealed that most hospitality students were better informed about the nature of high-end restaurants than their peers in the common student body. Thus, the data was collected from students majoring in hospitality management.

More than half of respondents (67%) were female. Twenty-seven percent of respondents were 19 or 20 years old, and 44% were aged between 21 and 22 years. Slightly under half of the respondents (48%) were in their third year of college with the majority (91%) being full-time undergraduate students. Almost half (47%) of respondents reported their major as Hospitality Management, followed by 33% as Event Management, and 10% as Restaurant Management. The rest, about 10%, majored in different fields. Thirty-five percent (35%) of students did not qualify for full-time employment status, and most students were residents of the state of Florida (Table 1).

For further analysis, the two scenarios for upscale restaurants and for quick-service restaurants were combined into two broader groups. The mean values for willingness to pay for upscale restaurant from eight combinations are presented in Figure 1. Among the eight different conditions, condition eight—a restaurant offering excellent food, excellent service, and excellent ambiance—scores the highest willingness to pay at $118.80; consumers are likely to pay the least amount of money ($59.70) for a restaurant that provides the lowest level for food quality, service, and ambiance among the eight choices.
### TABLE 1: DEMOGRAPHIC INFORMATION

<table>
<thead>
<tr>
<th>Variable</th>
<th>Frequency</th>
<th>Percent (%)</th>
<th>Variable</th>
<th>Frequency</th>
<th>Percent (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Gender</strong></td>
<td></td>
<td></td>
<td><strong>Degree</strong></td>
<td></td>
<td></td>
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<tr>
<td>Male</td>
<td>31</td>
<td>32.6</td>
<td>Hospitality</td>
<td>45</td>
<td>47.4</td>
</tr>
<tr>
<td>Female</td>
<td>64</td>
<td>67.4</td>
<td>Restaurant</td>
<td>31</td>
<td>32.6</td>
</tr>
<tr>
<td><strong>Age</strong></td>
<td></td>
<td></td>
<td><strong>Status</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>19-20</td>
<td>26</td>
<td>27.4</td>
<td>Event</td>
<td>10</td>
<td>10.5</td>
</tr>
<tr>
<td>21-22</td>
<td>42</td>
<td>44.2</td>
<td>Other</td>
<td>9</td>
<td>9.5</td>
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<tr>
<td>23-24</td>
<td>18</td>
<td>18.9</td>
<td>Full-time</td>
<td>87</td>
<td>91.6</td>
</tr>
<tr>
<td>25 or more</td>
<td>9</td>
<td>9.5</td>
<td>Part-time</td>
<td>7</td>
<td>7.4</td>
</tr>
<tr>
<td><strong>Education</strong></td>
<td></td>
<td></td>
<td><strong>Employment</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1st</td>
<td>3</td>
<td>3.2</td>
<td>Full-time</td>
<td>33</td>
<td>34.7</td>
</tr>
<tr>
<td>2nd</td>
<td>18</td>
<td>18.9</td>
<td>Part-time</td>
<td>60</td>
<td>63.2</td>
</tr>
<tr>
<td>3rd</td>
<td>46</td>
<td>48.4</td>
<td>Missing</td>
<td>2</td>
<td>2.2</td>
</tr>
<tr>
<td>4th</td>
<td>24</td>
<td>27.4</td>
<td>Residency</td>
<td></td>
<td></td>
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<tr>
<td><strong>Other</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>2</td>
<td>2.1</td>
<td>Florida</td>
<td>89</td>
<td>93.7</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Out of State</td>
<td>6</td>
<td>6.3</td>
</tr>
</tbody>
</table>

### FIGURE 1. MEANS OF WTP FOR UPSCALE RESTAURANTS
Similar results were obtained for quick-service restaurants. The highest WTP was reported as $12.65 for good food, faster service, and appealing atmosphere. The condition for the least willingness to pay in quick-service restaurants ($6.69) included average food, slow service, and less-appealing ambiance. Interestingly, in the quick-service segment, the willingness to pay for condition one (good food, slow service, less appealing place) was $6.75, which is closer to the condition three of $6.80 (average food, slow service, but appealing place) and condition seven (average food, slow service, and less appealing place) with $6.69 as indicated in Figure 2.

To achieve the objectives of the study, multiple regression analysis was conducted using dummy variables. Eight different conditions were coded as seven dummy variables and then entered as dependent variables in the model. Condition seven, which included the lowest level for all three attributes, was used as a base variable. According to the result of multiple regression analysis, the regression equations are presented here:

For Upscale Restaurants:

\[ \text{Willingness to Patronize} = 3.33 + 1.37C_2 + 0.52C_3 + 2.12C_4 + 0.87C_5 + 1.73C_6 + 2.97C_8 \]

\[ \text{Willingness to Pay} = 59.70 + 10.50C_2 + 13.51C_3 + 1.69C_4 + 28.81C_5 + 6.92C_6 + 18.06C_7 + 59.10C_8 \]

The expected intention to patronize a restaurant that provided good food, good service, and pleasing ambiance (Condition 7) was 3.53 out of 7 point scales, and the expected willingness to pay for this restaurant was $59.70. However, the intention to patronize a restaurant that would offer excellent food, good service, and pleasing ambiance (Condition 1) increased by 1.37 from the expected intention of condition 1 (3.53). Thus, the expected intention to patronize this restaurant is 4.90. Also based on the results, consumers are likely to spend $10.50 more for a restaurant offering excellent food, good service, and pleasing ambiance (Condition 1) than a restaurant which provides good food, good service, and pleasing ambiance (Condition 7).

For an upscale restaurant, consumers are most likely to patronize a restaurant (Condition 8, 6.5 out of 7) that provides excellent food, excellent service, and excellent ambiance, and they will spend an average of $118.80. A restaurant offering excellent food, excellent service, and pleasing ambiance was found to be the second place to patronize (5.65) and spend more money ($88.51). Table 2 summarizes the result of regression analysis.

For Quick-service Restaurants:

\[ \text{Willingness to Patronize} = 2.81 + 0.28C_2 + 1.67C_3 + 0.33C_4 + 1.86C_5 + 1.12C_6 + 0.92C_7 + 3.39C_8 \]

\[ \text{Willingness to Pay} = 6.69 + 0.05C_2 + 2.14C_3 + 0.19C_4 + 2.23C_5 + 1.10C_6 + 1.33C_7 + 5.97C_8 \]

The expected intention to patronize a restaurant that offers average food, slow service, and less appealing place (Condition 7) was 2.81 on a 7 point scale, and the expected willingness to pay for this restaurant was $6.69. On the other hand, it was expected that consumers intend to patronize a restaurant with good food, fast service, and appealing place (Condition 8) more (6.20 out of 7 points) and that they are likely to spend $5.97 more than in a restaurant with least desirable attributes, average food, slow service, and less appealing place (Condition 7).

To determine the most influential factors among food, service, and ambiance, an additional multiple regression analysis was followed. The previously mentioned three variables were integrated in the model as independent variables with two levels, high and low.

For an upscale restaurant, food was the most influential factor that increased the intention to patronize as well as the willingness to pay. When the level of food was higher, consumer intention to patronize increased by 1.32, and they were likely to pay $23.59 more. Meanwhile, willingness to pay increased by $19.52 when service level was highest, and it increased by $11.53 when ambiance was highest.

In the case of quick-service restaurants, service was demonstrated to be a more important factor for both intention to patronize and willingness to pay. When service was fastest, consumers’ intention to patronize increased by 1.63 and willingness to pay also increased by $2.47. When product quality was highest, consumers were willing to pay $1.53 more and were more likely to visit 0.83 times more; when ambiance was highest, consumers were willing to pay $1.56 more and were willing to patronize 0.76 times more often. Thus, food quality was more important in an upscale restaurant, while in quick-service restaurants, service speed was the more influential component,
### Figure 2. Means of WTP for Quick Service Restaurants

![Figure 2](image-url)

### Table 2. Result of Multiple Regression Analysis Comparing Food, Service, Ambiance

<table>
<thead>
<tr>
<th>Independent Variable</th>
<th>Model 1</th>
<th>Model 2</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Intention to Patronize</td>
<td>WTP</td>
</tr>
<tr>
<td></td>
<td>Upscale</td>
<td>Quick service</td>
</tr>
<tr>
<td>Constant</td>
<td>3.53**</td>
<td>2.81**</td>
</tr>
<tr>
<td>Condition 1</td>
<td>1.37**</td>
<td>0.28*</td>
</tr>
<tr>
<td>Condition 2</td>
<td>1.52**</td>
<td>1.67**</td>
</tr>
<tr>
<td>Condition 3</td>
<td>0.52**</td>
<td>0.33*</td>
</tr>
<tr>
<td>Condition 4</td>
<td>2.12**</td>
<td>1.86**</td>
</tr>
<tr>
<td>Condition 5</td>
<td>0.87**</td>
<td>1.12**</td>
</tr>
<tr>
<td>Condition 6</td>
<td>1.73**</td>
<td>0.92**</td>
</tr>
<tr>
<td>Condition 8</td>
<td>2.97**</td>
<td>3.39**</td>
</tr>
<tr>
<td>Adj. R2</td>
<td>0.33</td>
<td>0.37</td>
</tr>
<tr>
<td>F-value</td>
<td>107.03**</td>
<td>125.03**</td>
</tr>
</tbody>
</table>

*p<0.05 **p<0.001
TABLE 3. RESULT OF MULTIPLE REGRESSION ANALYSIS OF CONSUMERS WILLING TO PATRONIZE AND WILLING TO PAY FOR RESTAURANT ATTRIBUTES AT UPSCALE AND QUICK SERVICE RESTAURANTS.

<table>
<thead>
<tr>
<th>Independent Variable</th>
<th>Model 1 Willing to Patronize</th>
<th>Model 2 Willing to Pay</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Upscale</td>
<td>Quick Service</td>
</tr>
<tr>
<td>Constant</td>
<td>0.58**</td>
<td>-0.84**</td>
</tr>
<tr>
<td>Food</td>
<td>1.32**</td>
<td>0.83**</td>
</tr>
<tr>
<td>Service</td>
<td>0.97**</td>
<td>1.63*</td>
</tr>
<tr>
<td>Ambiance</td>
<td>0.59**</td>
<td>0.76**</td>
</tr>
<tr>
<td>Adj. R²</td>
<td>0.33</td>
<td>0.34</td>
</tr>
<tr>
<td>F-value</td>
<td>246.31**</td>
<td>254.91**</td>
</tr>
</tbody>
</table>

*: p<0.05 **: p<0.001

CONCLUSIONS AND RESULTS

This study concludes that customers in upscale restaurants are willing to pay the most money for highest level of food, perception of quality, service, and ambiance; likewise, the results are similar for those customers in a quick-service restaurant. In the case of upscale restaurants, consumers are willing to pay on average $23.59 more if the quality of food is high and the intention to patronize increases by 1.32. In the case of quick service restaurants, consumers are willing to pay on average $2.47 more if the service is faster, and their intention to patronize increases by 1.63. These results can help managers to develop strategies for proper staffing and training for producing high-quality food at high-end restaurants rather than emphasizing other factors. Similarly, managers at quick service restaurants should focus on improving the speed of service with proper staffing as customers are more interested in patronizing quick-service restaurants for faster service and are willing to pay more for it. Quick-service restaurant managers may want to invest in improving the speed of service as a priority rather than quality of food or ambiance. This information can have a significant impact on the return on investment for restaurateurs in the long term.

LIMITATIONS AND FUTURE SUGGESTIONS

Due to the current difficult economic times and prevailing lower consumer spending practices, this study’s results may be limited in their generalizability. Collected data could be biased due to the specific collection sample of students working in the hospitality industry. This bias is important to mention because students working in the hospitality industry are schooled in the principles of hospitality research and have much hands-on experience, making them considerably more knowledgeable than their peers in the common student body. This research could be extended by focusing more on different demographic groups and their respective demands, including preferences according to age groups, nationalities, income level, and professions. Additional data could also be collected when the economy stabilizes to confirm the results collected from current research. Data from other demographic variables could also be helpful. Future studies may consider exploring the relationships among restaurant attributes and consumers’ willingness to pay and satisfaction in different dining contexts. In addition, the current study does not address the needs of other foodservice venues such as institutional foodservices, contact foodservice, and restaurants located within hotels. Testing of current findings in different foodservice settings with varying restaurant attributes would be helpful.
REFERENCES


