

# **APPLYING THE DINESERV AND IPA METHODS TO A CROSS CULTURAL COMPARISON OF QUALITY SERVICE GAPS**

A. Scott Rood  
Grand Valley State University  
Joanna Dziadkowiec  
University of Economics – Krakow, Poland

## **Research Question**

This is an empirical comparison of methods study, to determine which method (DINESERV or Importance Performance Analysis) will produce the most relevant gap analysis attuned to the needs of restaurant managers (hospitality providers) in Poland and the United States. The aims are: 1) to understand what consumers expect (in advance of their purchase) from a casual dining restaurant; 2) to understand what attributes are more or less important to them; 3) to examine aspects of service delivery (post purchase) and identify the service quality gaps; and, 5) to compare the two main methodologies.

## **Literature Review**

In the service industry quality has been measured using quantitative, qualitative and mix method approaches. According to Leedy and Ormrod (2005) these can be illustrated as explaining, predicting and controlling phenomena (quantitative), and describing and understanding phenomena from the participants' point of view (qualitative).

One of the most widely used instruments to measure service quality is the SERVQUAL scale (Parasuraman et al., 1985), based on the disconfirmation paradigm. The model proposes that customers evaluate the quality of service on five distinct dimensions: reliability, responsiveness, assurance, empathy, and tangibles; and that service quality are the difference between a customer's expectations and perceptions of the quality of a service (Wong, et al., 1999). Measurements are taken using surveys and questionnaires and are weighted by importance. Service quality is determined by subtracting customer's perception scores from customer expectation scores ( $Q=P-E$ ). One of the conclusions drawn from this model is that consumer perceptions of service quality result from comparing expectations prior to receiving the service and actual experiences with the service. Stevens et al developed DINESERV as a variation of SERVQUAL.

Despite criticism from other research, SERVQUAL models (including DINESERV) remain the most commonly used diagnostic method for evaluating service quality.

The Importance Performance Analysis technique (Martilla and James, 1977) has long been used in the hospitality industry. The IPA has been used to investigate both expectations and

performance providing an understanding of not only how an organization performs relative to selected attributes, but also how important individual attributes are to the customer. Consumers judge the importance and performance of each relevant attribute and a weighted combination of these attributes forms the service quality index. Janes (2006) explains how it works: Attribute grading is placed on a matrix, indicating areas of focus. Grid quadrants are: a) concentrate here, b) keep up the good work, c) low priority, and d) possible overkill. An attribute placed into the “low priority” category need not be addressed by the organization. An attribute placed into the “possible overkill” category suggests the organization may be expending resources in an area customers are not concerned about. An attribute placed into the “keep up the good work” category reinforces organization efforts as customers’ state these items are both important and the organization is doing well with them. Attributes placed in the “concentrate here” category suggest these are important, yet the organization is not doing well, and therefore should be prioritized. Thus, the outcome of an IPA quadrant model allows managers to develop prioritized action plans (Janes, 2006).

Between 1977 and 2010, over 75 hospitality and tourism studies were published that use the IPA technique.

### **Background information**

Qualitative research, including self-administered surveys is a frequent method used in cross cultural marketing research (Rugimbana and Nwankwo, 2003). – This study is empirical and involves data from 200 restaurant visits in Poland and the United States. The sampling unit consists of 50 urban casual restaurants (25 per country), with each restaurant visited 4 times by different trained mystery shoppers. Half of the visits were conducted using DINESERV; the other half using IPA. In both methods the data collection consists of a 2-part self-administered questionnaire. The questionnaires contain 35 attributes that mystery shoppers answered, in order to compare their pre-visit expectation and post-visit importance scores.

### **Design and Results**

The DINESERV questionnaire consisted of 35 (of the original 36) questions developed by Johns and Tyas (1996). Responses were elicited on a 5 point Likert scale (Kim, et al., 2009; Johns and Tyas, 1996). Quality scores were obtained as  $Q=P-E$ , i.e., by subtracting expectations from performance ratings. The questionnaire instrument was subjected to standard tests for internal reliability, and its relationship to instruments previously used was examined and confirmed by factor analysis. Validation was confirmed via Pearson correlation coefficients. Reliability was confirmed via Cronbach’s alpha, plus symmetrical and asymmetric half-tests.

The Poland expectation mean was 4.18 (s.d.0.60) and the performance mean was 3.47 (s.d.0.26). Two curves named Performance and Expectations depict starting from the left, the highest expectations and the corresponding performance results. The gap between the performance and

the expectations results for each of the tested factors is presented on the bottom of the chart. The idea of gaps analysis starting from the most important is clearly demonstrated on this grid.

The United States overall expectation mean was 3.9, (s.d.0.58) and the performance mean was 3.5 (s.d.0.24). This idea of an expectations and performance comparison and gaps analysis is clearly demonstrated in the representation of scores for each attribute as shown in this Figure.

In short, Customers in the United States got what they expected in almost half analyzed attributes (16 of 35).

The present study used IPA questions developed by Rood and Dziadkowiec (2010). A pilot study confirmed the appropriateness of the eventual 35 chosen attributes. Reliability and internal consistency of each of the attributes measured was performed. The Cronbach alpha for all importance and performance attributes exceeded 0.79 in all subsets, a good indication of reliability. Procedurally, the IPA questionnaire was self-administered twice, with mystery shoppers responding to identical attributes on questions assessing both importance (expectations) and performance.

The importance and performance central tendency scores (for Poland data) were plotted on a two dimensional, four quadrant grid. From this point, a grand mean was used to position the vertical and horizontal axes (cross hairs) on the grid. The overall importance (expectation) mean was 5.50 (s.d.1.02) and the performance mean was 5.24 (s.d.0.79). This idea of a variation between expectations and performance is clearly demonstrated in the representation of the scores for each attribute as shown in this figure.

In short, the Polish mystery shoppers got what they expected in only 10 of the 35 selected attributes.

The United States overall importance (expectation) mean was 5.62, (s.d.1.07) and the performance mean was 5.48 (s.d.0.71). This idea of a variation between expectations and performance is clearly demonstrated in the representation of the importance and performance scores for each attribute as shown in this figure.

In short, The American mystery shoppers got what they expected in only 12 of the 35 attributes.

### **Conclusion**

In both countries, more often than with IPA, negative gaps were observed indicating some quality deficiencies and that expected quality in Poland and the United States is higher than the “ideal quality” described by the IPA pre-visit expectations. Comparing the results in both countries it can be observed that in Poland negative gaps are present more often, indicating lower quality of services in that country. It can be concluded that the designed and verified mystery shopping / IPA method (Rood and Dziadkowiec, 2010) is a useful tool. The DINSERV method

is complementary to the IPA study in terms of cross-cultural research. It shows the actual differences in service quality between the investigated countries